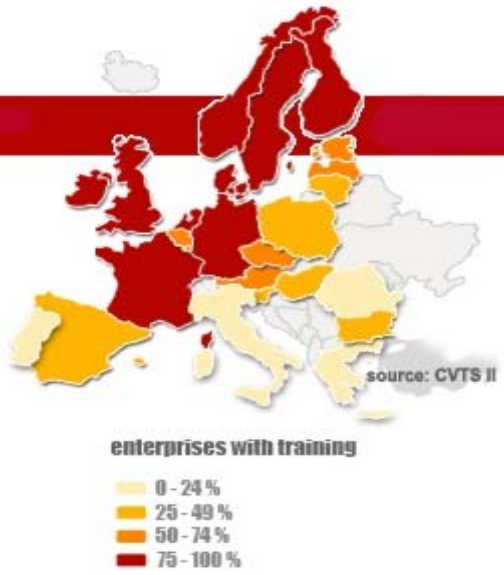
C V T S REVISITED

Continuing Vocational Training in Europe
Benchmarks and Best Practice

Leonardo da Vinci



Phase 3 – Modelling and Case Studies Phase

Work Package 11

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To Train or Not To Train

Explaining differences in average enterprise training performance in Europe – a framework approach

working paper

To Train or Not to Train - Explaining differences in *average* enterprise training performance in Europe – a framework approach

Working Paper – Workpackage 11
Country specific thematic analysis of continuous vocational training on the basis of CVTS2 and modelling of CVT-structures (CVTS II revisited).

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1 Introduction

Context in which this paper has been developed

This working paper presents the results of the conceptual work in two working packages of the Leonardo da Vinci Project Training in Europe/CVTS revisited1. While a paper developed in the preparatory stage (Workpackage 7, compare (Markowitsch & Hefler, 2005a) of the project reflects the theoretical starting point, the following paper gives full account on the further considerations developed within the project's life span. The final outcomes of this work, based on the following paper and the outcomes of the all together 14 working packages of the project – presenting the findings in a more concise and systematic way – will be available as a chapter in the final book publication of the project (Markowitsch & Hefler, 2007).

The approach presented is mainly developed by the authors, but has profited a lot by the support and criticism of all members of the partnership. The framework approach was discussed in the first half of 2007 in three consecutive partner meetings extensively. Furthermore, the partners have provided written comments separately for each of the main chapters of this paper. We acknowledge gratefully the contributions of (in alphabetical order) Friederike Behringer, M'Hamed Dif, Jeny Festová, Pavla Kalouskova, Bernd Käpplinger. Giovanna Mazza, Lars Rune Møller, Dick Moraal, Gudrun Schönfeld, John-Houman Sørensen, Vidmantas Tulys and Richard Veleta.. We could not integrate all suggestions and were not able to consider all concerns and while partners agree to our main intentions, – unavoidably given the extent of our endeavour – disagreements in the details may prevail. Therefore, we take full responsibility to all shortcomings of the paper.

Regarding the statistical background analysis, we would like to acknowledge the tremendous contributions made by Verena Katscher, who supported our work continuously for roughly a year. Exhaustive documentation of this background work will be made available as an individual working paper ((Hefler & Katscher, 2007) on www.trainingineurope.com.

The goal of our framework approach

We seek to provide an explanatory framework capable of identifying reasons for the large differences in the average training activity of enterprises shown by the Second Continuing Vocational Training Survey (CVTS II) conducted in 1999. Therefore, we examine:

a) the micro-level of enterprises (Why do enterprises train?), (Section 3);

1 Full Title of the project: *Country specific thematic analysis of continuous vocational training on the basis of CVTS2 and modelling of CVT-structures (CVTS II revisited).* For more information on the Project compare www.trainingineurope.com and (Markowitsch & Hefler, 2005a).

b) the (socio-) economic state of the countries (What kind of enterprises can we expect to find?) (Section 4); and
c) the interplay of enterprises' training policies with three selected features of societies – the education system, the labour market and the adult education and further training system (Section 5).

Our understanding of explanatory framework

We chose a rather broad understanding of explanatory framework. We seek to provide a 'frame' that can:

a) contain many arguments on different levels, while able to add additional arguments;
b) provide a structure for the arguments, so that their interrelation becomes visible and a matter of further research; and
c) apply a set of criteria to assess arguments in their significance and interrelation to other arguments within the framework.

The concept of 'training' used in the following report

The following report uses the notion of (further) training in a broad sense, including a counsellor or instructor providing any form of structured support for learning by a group of participants in (at least for periods) face-to-face setting. We regard the notion positively and do not intend to express any differentiation between 'further education' or 'counselling' on the one side and training as a clearly restricted teaching-and-learning interaction, aiming at the mastering of clearly predefined skills on the other side.[2] Our use of training – as the concept of CVT used in the CVT Survey – includes any form of instruction: from the most elementary training in security regulations to the most advanced, group-dynamic training sessions; or from basic skills in welding to expert-level workshops.

Terminology used to address the environment of enterprises and its interrelation with training activities

Studies on the impact of any specific characteristics of the socio-economic and cultural environment of enterprises on their training performance can use broadly distinct notions to indicate features on different levels. Beside 'environmental factors', groups of features (e.g. the initial vocational system, the labour market) are called 'frameworks' (as we have done in (Markowitsch & Hefler, 2005b). In other papers, features of the environment are addressed as e.g. 'system characteristics' (Desmedt, Groenez, Van den Broeck, & Lamberts, 2007).

2 All languages share the possible problem that one notion like training (in German: 'Schulung') connotes a clearly restricted image of learning activity from Taylorism, while other notions express a more learner centred, personal growth involving image ('further education' in English, 'Weiterbildung' in German). A major obstacle in communication on training activities is the lack of shared understanding of the extent of notions and that different historic (or in case of Neo-Taylorism even recent) images of training overlap, so that – depending from the context – training has negative or positive connotations. (For a brief historic overview on the concept of training and its place in production regimes and in the history of industrial relations see (Reid & Barrington, 1999)

The work on the framework approach shows the necessity to define a set of concepts in its interrelations to address different questions in the curses of the argumentation. In the following section, we sketch approaches to different aspects of our subject. Thereby, we follow – not in a strict sense – a Bourdieusian tradition in general sociology.

We use the notion of *social space* for the total of all social relations, which in their interplay define the characteristics of the space and the meaning and characteristics of each place within the space. In the *social space*, we address *actors*, *structures* and *institutions*.

Actors are social entities, which act in a relative autonomous way within certain limitations set by the social space and individual characteristics. As actors, we primarily address enterprises (as a type of organisation), households, employees (as both, members of organisations and households), non-economically active or unemployed members of households, governmental bodies and other non-governmental bodies. In most cases, we are interested in enterprises, using one enterprise as the focus point to express its relations to its environment. Here, we express any relation between this 'ego' to other aspects of the social space as the relation between 'the enterprise' and its environment. All other actors, which are not in the focus (not in the ego-position), then become part of the environment. We regard actors as both relatively autonomous in their behaviour within the limitations made by the historic pathways ('micro-history') of the actor itself and as influenced and specified by their actual relative position in the social space. When describing actors in a developmental perspective, we address both their actions and the relevant changes in the social space, which have an impact on the actors with or without their voluntary adjustments.

As structures, we address any constellation in the social space with a distinct impact on the characteristics of the social space and therefore a possible impact on any 'ego' addressed. Examples of structures include workforce demographics (defining replacement rates, shortages or excess on the labour market etc.), the competition on markets (e.g. the number of enterprises offering the same products) or the relative distinctive value of qualification on the labour market.

We use the term *institutions* for entities produced within a specific socio-political development that share an origin and have a distinct impact in the social space, defined by its interrelation to existing structures. The most common examples include laws (e.g. regulations on minimum wages or dismissals) or the definition of qualification pathways (years of compulsory education on different levels and on different types of educational institutions). The actual impact of any institutional changes within the social space varies (e.g. the structure of the education system may stay unchanged, while the number of graduates on different levels and the value of a qualification on the labour market change dramatically.). Similarities in institutions (e.g. comparable lows on educational leaves) may have complete different meaning in different states of the social space.

In the following report, we remain primarily on the level of the social space and do not investigate specific *social fields* partially characterised by the structures and

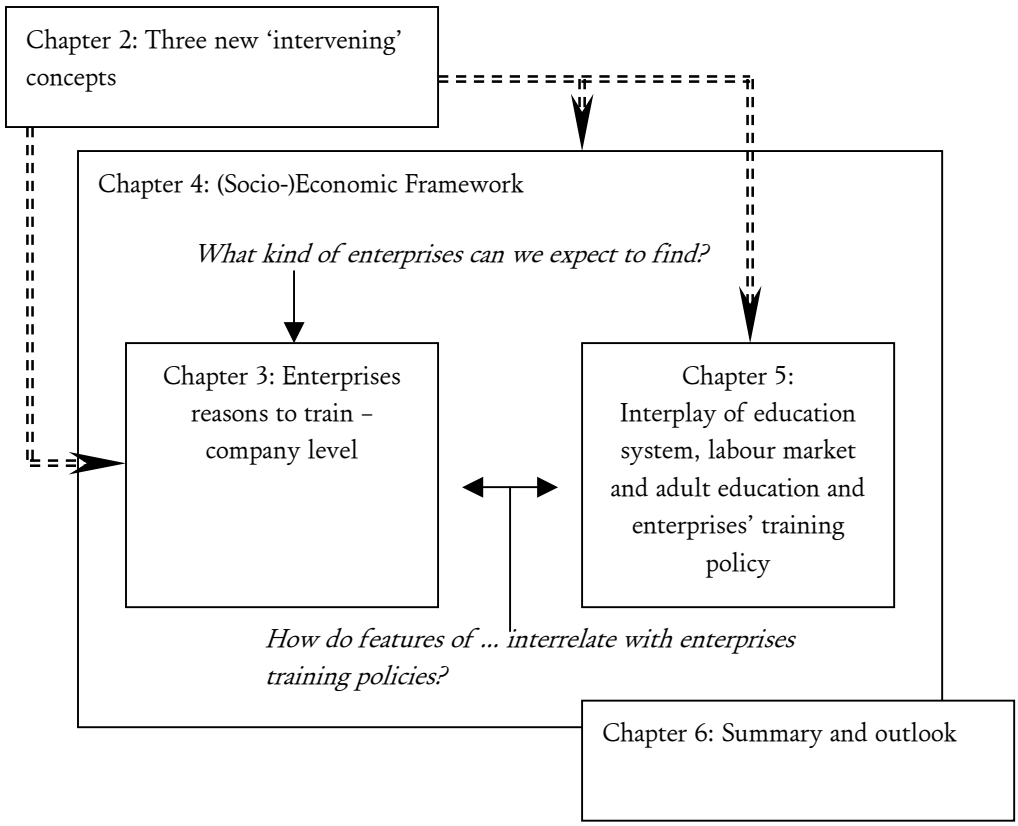
institutions defining the social space. For example, parts of economic sectors may form specific fields, ruled by particular structures and institutions, which have little meaning outside the fields.

We use the notion *area* to address groups of structures and institutions with a social function and conventionally described as *functional subsystems*. For example, we use the labour market, the education system, the lifelong learning (LLL) system as these kinds of areas. Normally, structures and institutions belong to more than one area (e.g. the training for unemployed can be seen as a part of the labour market and the LLL system).

We use *indicators* to express features of the social space as structures or institutions. Differences in the social entities actually 'counted' (e.g. the number of employees with a certain qualification) or 'represented' (e.g. the existence of a regulation on minimum wages) are of interest only when they sufficiently express differences in the social space of different countries.

A road map to the working paper

The following diagram shows the structure of the following paper.



In Chapter 2, we discuss the need for the 'relative autonomy' (Pierre Bourdieu) of enterprises in their training policies and the need to consider the differences in enterprises' intrinsic motivation to train or not train. This 'relative autonomy' limits any influence of external factors on enterprises training behaviour. To include this argument in our framework approach, we propose three new concepts. Therefore, Chapter 2 can be regarded as an 'introduction' to the discussion of the other chapters, which will take up the three concepts and investigate their consequences in the different areas.

In Chapter 3, we give an overview on the reasons enterprises support training, applying the concepts provided in Chapter 2. This chapter not only addresses reasons to train located with core or support processes of enterprises, but also the interrelation between industrial relations and training policies. Finally, we discuss the fact that enterprises do not only interact with societal and cultural environments, but these cultures are part of the enterprises themselves, the organisations are 'embedded' (Granovetter, 2001) and consequently at the same time structured by 'culture' and structuring 'culture' ('cultures in cultures' approach).

In Chapter 4, we discuss differences in the probability of finding enterprises with certain features in a country. We start with the discussion of differences in the economic strength of the 25 participating countries of CVTS II. Then, we adopt a broader approach and discuss selected socio-economic features, dealing mainly with social cohesion, of the societies mentioned. Throughout the chapter, we include again the newly introduced arguments of Chapter 2.

In Chapter 5, we investigate the interplay of three dimensions of societies – the education system, the labour market and the adult education (or lifelong learning) system – and enterprises training policies and training performance. Here again, we discuss the interplay in the foreground of the argumentation developed in Chapter 2.

Chapter 6 presents our summary of the results and an outlook on future research activities.

2 Reactive and expansive training cultures – Consideration of the relative autonomy of enterprises training policies

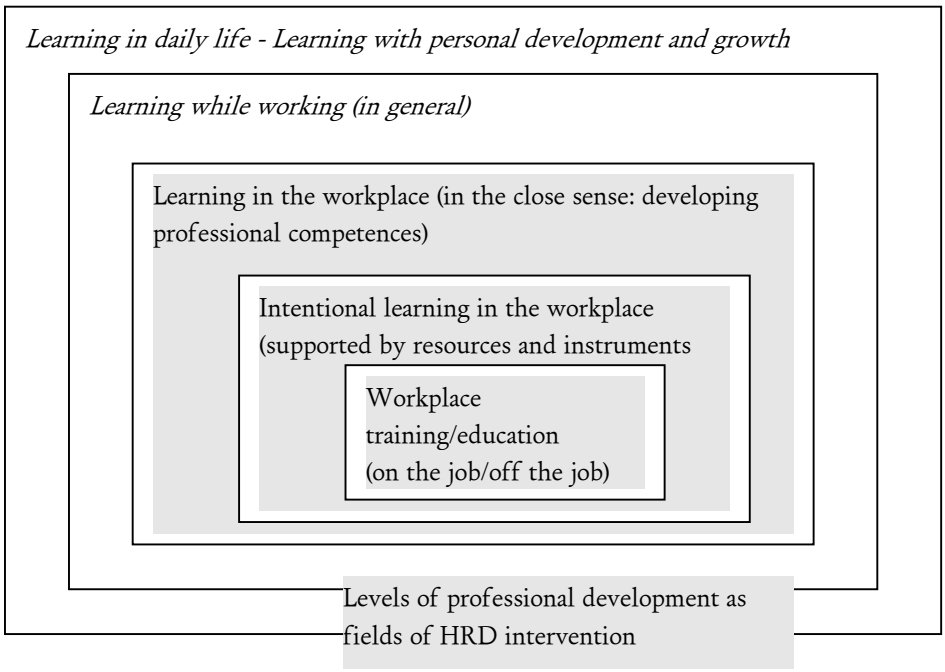
2.1 Introduction: Identifying enterprise cultures highly supportive of workplace learning and continuing development of professional competencies

The lessons learned and the new professional competencies gained while working depend greatly on the features of our workplace. These features are partly determined by the nature of our work, our tasks and our personal competencies. In the same way, these features depend on our employer. How does the employer organise the work and define the available positions? How is work organised? How is the learning, the professional competence development and – inseparably – personal human growth supported; by which instruments, including training? In addition, how intense are these instruments applied, what does the quantitative dimension look like? Many strains of current research activities focus on the task of describing the organisational cultures supportive for professional development. At the same time, the challenge arises to classify or grade employers according to the degree their organisational cultures support workplace learning.

A broad range of disciplines seeks to identify organisational cultures highly supportive to workplace learning; e.g. organisational psychology, pedagogy and learning theory, general management and human resource management (HRM) theory, organisational counselling, sociology of work and industrial relations, operational research and process analysis, economics of labour markets, and education and training. The disciplines have distinct traditions of concepts, foci in research and preferred styles of reasoning. Therefore, while one can accept a multi- and trans-disciplinary approach as necessary to identity learning-supportive enterprise cultures, one cannot overestimate the challenge of learning from all these disciplinary contributions.

Addressing workplace learning and organisational cultures means nothing less than studying the social space while applying particular research criteria: The social world's unlimited diversity must be brought into a meaningful research framework that coherently addresses social science's general methodological questions of how to start, what to observe and how to relate individual behaviour to structured social environments. At the same time, clarifying concepts that address learning in the workplace, become crucial not only for interdisciplinary communication. What do concepts include? The complete definition of various concepts and their relationship to each other still must be done. Diagram 3 sums up only the relation of concepts we use in the following paper. It shows also our focus in this paper, the sphere of intervention of human resource development (HRD) policies in enterprises, and the significance of training offers in this sphere of intervention.

Diagram 3
Learning in the workplace – extent and overlapping of concepts



The diversity of approaches to workplace learning involves potentials as well as risks. Felstead notes that the schism dividing different strains of research causes great confusion. (Felstead et al., 2005) Studies of workplace learning and its contribution to personal competence development and organisational success, have mainly used a qualitative, case-study-based approach. This literature assumes as self-evident the importance of learning while working and focuses on possible intervention to improve the learning opportunities of daily work. The organisation of daily work most strongly influences competence development; thus, all HRM and HRD interventions are evaluated in their potential for improving or damaging workplace learning. This approach, at least, integrates the provision of educational and training offers into the picture of a supportive workplace environment. Similar approaches, mainly based on case studies and a more 'clinical perspective' (Schein, 1987) from the field of organisational counselling, can be found in the literature on 'learning organisations'.

Within these traditions, attempts have been made to characterise working environments or organisations as 'supportive' for workplace learning and individual development. Definitions, of course, have to remain rather vague or are avoided by describing a continuum between criteria of work organisation and organisational culture supportive and criteria futile to workplace learning. In the next overview, we present three approaches; we will examine them later in more detail. All these approaches schematise what a learning supportive organisation may look like. However, none of them provide a clear route to quantitative research; for example, to measure how many enterprises of this 'learning supportive' type can be found in a country. While lacking quantitative methods on the organisational level, research has measured employees that work in high-learning and low-learning environments. In this paper, we will address the Norwegian concept of 'learning conducive workplaces'

and the extensive approach for assessing the learning opportunities involved in workplaces prepared by a German research team (Frieling, 2006).

Overview of Approaches

		Reference(s)	
Qualitative assessment of organisations ('case Studies')	Expansive-Restrictive Framework of workplace learning/workforce development	(Fuller & Unwin, 2004) (Evans, Hodkinson, Rainbird, & Unwin, 2006)	
	Learning-oriented organisation	Leys cited (Tjepkema, Stewart, Sambrook, & Mulder 2002)	a) create (on-the-job as well as off-the-job) facilities for employee learning b)stimulate employees not only to attain new knowledge and skills, but also to acquire skills in the fields of learning and problem-solving and thus develop their capacity for future learning ('learning to learn')' (Tjepkema, Stewart, Sambrook, Mulder et al., 2002)
	Learning organisation	(Nyhan, 2003b)	
Quantitative approaches to workplaces	Learning conducive workplaces	(Skule, 2004)	
	Assessment of learning options in the workplace	(Frieling, 2006)	

Studies of the importance of training that are primarily influenced by the economics of education or rational choice approaches normally take a quantitative approach and start with data provided by statistical institutions. With data on participation and on quantities of training, training courses become the natural starting point and main indicator for learning in the workplace. This remains true even if many researchers using quantitative approaches acknowledge the shortcomings of using training courses as a *pars pro toto* for workplace learning.

Within this tradition, quantitative data can be used to provide rich insight on the discipline's typical questions on the rational behaviour of the investigated units (enterprises, households). However, the limitation of the use of training data is also often addressed.

Data from enterprise training surveys are only seldom used for microanalysis, which is more often based on national surveys than on the European Continuing Vocational

Training survey, where currently only one research group works on the issue of enterprise training. (compare e.g. (Mytzek-Zühlke & Nitsche, 2006)). In contrast to the previously described approaches, researchers using this approach have made no attempt to group enterprises according to assumed behaviour, which is not only a reaction to stimuli stylised within a regression analyse, but which come from different enterprise cultures itself. Quantitative analysis only notes the differences between groups of enterprises formed from single criteria (e.g. number of employees, sector, innovation activity). Surprisingly, no attempt has been made to define groups of enterprises according to assumed predominance of enterprise culture, which becomes an 'intervening variable' within the general explanatory framework.

The situation becomes even more problematic, when analysis uses averages of training activities. Any average figure, e.g. the average number of training hours per employee in a country, are determined by at least two aspects:

a) By the completely different significance of enterprises of varied size. Major enterprises and their training decision – no matter if they are highly active or rather inactive in training – clearly influence average figures.
b) Any average figure will be determined by the proportion between enterprises highly active and enterprises with low or without training activity.

In the following section, we will address these two questions while using the general precautions necessary when working with country average figures on enterprise training activity. Then, we will discuss the necessity to use a quantitative approach in the conceptualisation of different enterprise training cultures. AT the same time, we must return to the question, if, and in what way, training statistics can signify *pars pro toto* for organisational cultures supporting workplace learning. Is it possible to identify 'learning organisations' by the help of data on training? To do so, we will first propose an approach that sums up the rather complex interdependencies responsible for the success of company training for the companies as well as for the individuals. Finally, we present our conclusions and address the implications of our proposal for our explanatory framework for the differences in average training activity between the countries.

2.2 Interpreting averages carefully – The impact of major companies on country average figures

Research on training in enterprises generally shares one challenge with the sociology of enterprises: the outstanding heterogeneity of what is called 'an enterprise'. Classifying enterprises according to their number of employees helps a bit, but the heterogeneity still remains overwhelming, even within one sector and/or one group of similarly sized enterprises. The leading enterprises on sector level, country level or even the global level influence any indicators on economic activity; so changes in average figures partially result from the individual development of major enterprises, changes in their general economic performance, their management strategy or their enterprise culture.

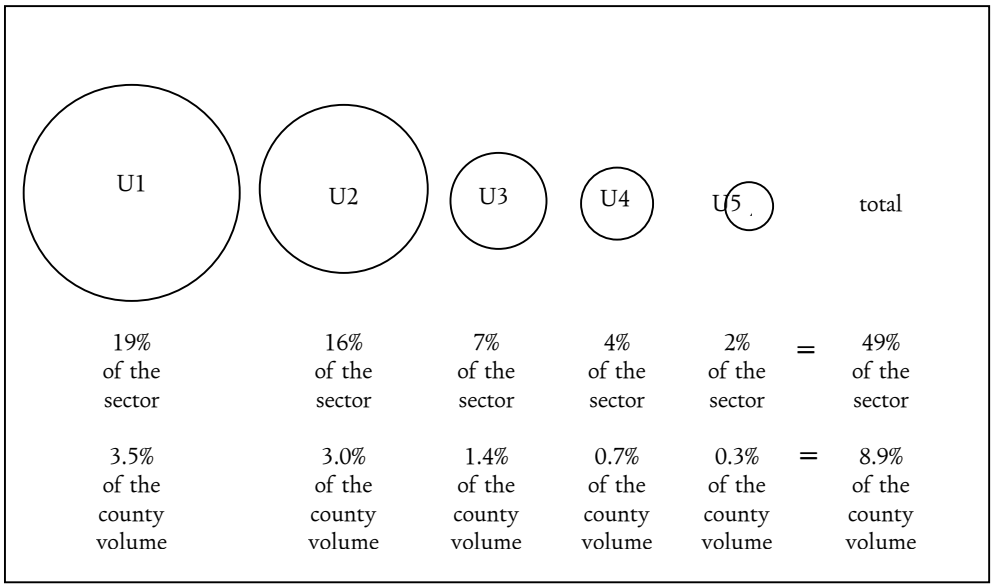
For average training figures, this general reminder is of crucial importance. For the category of enterprises with more than 1000 employees, in the participating countries of the CVT II Survey, between up to 80 % of all training houses are concentrated.

However, even more important is the fact that even the values for single enterprise and their training policy can have a strong impact on average figures of sectors or even countries.

To illustrate this, we present some figures for Austria. Ten data records, representing 24.4 enterprises[3], make up 25.4 per cent of all training hours identified by CVTS II in Austria. Changes in the training policies of these enterprises would strongly influence the Austrian average training figures[4]. Diagram 4 shows the influence of five records in the Austrian bank and insurance sector. Together, representing around 13 enterprises, they make up 49 per cent of all training hours in the sector and 8.9 per cent of all training hours identified by CVTS in Austria.

Diagram 4

Five units with the highest impact on the total number of training hours in the bank and insurance sector in Austria



Sources: CVTS II, author's calculation

The impact of data from single enterprises on the average figures is of course much more substantial for smaller than for larger countries. Furthermore, major global enterprises influence average figures of even Europe's large economies. For example, the 1.7 million hours of training reported by Spain's Telefonica for its domestic employees in 2005 would represent 2.3 per cent of all training hours identified by CVTS II for Spain. The overview provides a selection of training figures of major enterprises in Europe and estimates for the share of the total country volume of training[5].

3 Single data records are weighted and represent a number of enterprises of the strata.
4 Even the mere chance of changes in participation in the survey of major enterprises between two surveys may heavily influence average results.
5 A more exhaustive list with more figures available in the report is presented in the background report.

What are the consequences of this fact?

First, training figures for major enterprise can seriously influence the average figures. Major enterprises with a comparatively high training activity will influence the country average substantially in a positive direction; a major company with a comparatively low training activity can do the same in the opposite direction. Assuming the two companies were participating in the survey, then training activity of Telefonica would clearly increase the country average of Spain (enterprise average training hours per employee: 48 compared to 11 of the country average), while the training figures of the Deutsche Post would contribute significantly to the low average level in Germany (enterprise average in 11 hours in 2005, country average 10 hours).

For any analysis seeking the influence of external factors on average training figures for enterprises, the strong influence of major companies is surprisingly *not* an unsolvable problem. Actually, large enterprises consist of many local units. Their training activity may be interrelated with external influence in the same way as a multitude of smaller enterprises. (However, for highly training active enterprises, see the arguments in the next section).[6]

On the other side, these major enterprises have highly centralized company policies, not only in HRD and training, but in many other aspects of strategic and financial management. Changes in enterprise training policies may come totally from within the organisation without any link to the local circumstance. Special programs (e.g. for changing management's direction) can lead to a significant increase of training hours in one particular year. Decisions in the international headquarters of the mother firms may lead to policies sharply cutting any investment, including training budgets.[7] Mergers or initial public offers (IPOs) can also result in radical changes in a company's training figures.

For example, when the Finnish steel company Outokumpu prepared an initial public offer, the company planned to reduce its workforce by nearly 20 per cent in 2005 and accompanied this restructuring by far-reaching special programs; therefore, in 2005, 400,000 hours of training were offered (60 hours per employee). In the following year after the steep cut in the workforce, training volume dropped to roughly half of the previous year (200,000 hours/23 hours per employee). This change was linked to factors internal to the company and not to any external crises and it took place within a period of raising prices for steel.

6 A major topic is, of course, the outsourcing of activities or the separation of large-scale organisation in different units with completely different features. Analysing training figures within single sectors in Europe, without including information on outsourcing activities, which may lead to a complete change in the personnel structure, a sharp reduction in the headcount and therefore a sharp increase in all average figures, would be highly misleading.
7 See (Hefler, 2006) One Austrian HRD practitioner reported that the 11 September 2001 terrorist attacks in the USA influenced his training department because the company is owned by a major firm highly active in aviation. The mother firm applied cost-cutting programs for all branches around the globe, mostly completely untouched by the influence of the terror attack on the aeronautic sector.

These types of developments do partially counterbalance each other. Especially in the short term, they may seriously influence training averages.[8] General tendencies, e.g. highly increased productivity and sharp fall in number of personnel in sectors with traditionally high training activity, can be discerned only within a longer transition period.

In this section, we have shown only that is necessary to consider enterprises 'proper motion', fairly independent from general features in the environment and at least in its 'micro policy' unpredicted by indicators measuring general elements of the socio-economic environment. (In which year exactly will the adaptation to changed market environment take place? Which particular route will the adaptation take?) Next, we build on developments coming from within the enterprises, its strategic decisions and its organisation culture to address the question: How will differences in cultures of workplace learning and training influence, first, the individual training behaviour of enterprises and, second, a country's average training figures?

2.3 How can company training become successful?

Enterprises applying a highly active training policy should have good reasons: for them, obviously, training pays off, at least in the long run. For our consideration, we need an overview on the main requirements at the organisational level, transforming training input into benefits (in a broad sense) to be shared by the employees, the employer organisation and its non-employee shareholders. After reviewing briefly some main findings from research literature, we propose a schema to identify the most significant requirements for successful enterprise training.

Employee-focused research on the result of participation in further training and education found many cases with positive effects on wages, income and reduced risks of becoming or staying unemployed. Already on the level of individual employees, gathering coherent data becomes an essential issue and differences in survey results are mainly connected to differences in data modelling. At the same time, 'training' become highly stylised, expressing either mere participation (within a given time frame) or participation for a specific time (e.g. days of training). Existing research reveals little about the circumstances necessary to convert any improvement in competences into improved output in the working place and improved returns for individuals.

Studies on training results at the company level are much more scarce because of the difficulty of access to datasets that including statistics on training and on economic success. Studies that had access to individual company figures (Bartel, 1995)) show a link between training and organisational success, but any details of the mechanism that makes training pay off remain in the black box. The same is true for any attempts to estimate training success by comparing enterprises with highly active training enterprises to their competitors with only average training activities: while studies indicate that training contributes to business success, the mechanism is not discussed in any detail.

[8] We leave out any troublesome details on the probability that the CVTS sample represent a balance between enterprises with a short-term high in training activity and enterprises with a short-term low in training activities.

On the other hand, the literature on management and management consulting is full of schemes, outlining designs for improvement and change projects that lead to a better performance with a calculable contribution to the enterprise performance. Within these type of project architectures, training is used as one tool among others. The studies assess the success of the whole intervention and not particularly the training. For the HRD and HRM departments, processes are designed that ensure timely access to competent employees. Here again, training is seen as one tool among others. For HRD units, a huge corpus of literature has developed to assess the economic success of training and other HRD projects. In all the references cited, training is seen primarily as an integrated part of an intervention or as part of an organisational setting. Training can be shown as necessary within the designs of the projects and processes – but there is no need for separately expressing the decontextualised function of training. Measuring training results is mainly a tool for improving training activities that compares the results of different ways to reach a defined goal.

In the following section, we try to sketch the most significant requirements for a successful training culture and its embeddedness in the organisational structure (See Diagram 5 below). Now, to describe in words the diagram's concepts.

Any expected improvement has, as a prerequisite, a successful further development of the individual employee's competence. We propose a broad and, at the same time, integrated use of the concept of competence, including anything required to do a certain job, i.e. professional skills as well as any personal attitudes and abilities normally addressed as 'soft', 'personal' or 'social' skills. Workplace requirements change and individual resources invested (e.g. motivation and passion) must be steadily restored and secured from damage (e.g. by distress, exhaustion); even completing daily job requirements remains a steady learning process. The routine experience, the daily involvement and participation in the workplace, provides crucial basis for this learning process that achieves a given level of competence and improves on it at the same time. Learning while working makes the most important contribution to competence development. The work processes provide therefore a crucial input for competence development and are a core issue in HRD policy and organisational learning. At the same time, an individual's workplace learning is supported by different kinds of tools, starting by rather general instruments such as mentor guidance or peer training. Training is seen, therefore, as one of the most specific tools; because training intervention can be used to explicitly support certain steps in competence development. Within the context of the company, any training activity will try to build on daily work experience as a main resource for competence development. This is also true if – as often – HRD interventions aim at changes of behaviour deeply routed in a day-to-day experience, expressed verbally or non-verbally as 'resistance' ((Nevis, 1987)) against a learning offer. Here, to improve competence depends on a new integration of old routines and new options offered by the HRD-intervention. The support mechanisms offered for individual competence development are dependent on the HRD culture, including the particular organisation's training culture. The HRD culture must be seen as part of the support structures developed for organisational learning.

If individual competence development has been successful, the individuals *may* do a better job and contribute to the success of the unit where they work. Any positive result for the company from the individual employee's newly acquired competence depends on integrating the new competence within the work processes; again, work organisation becomes a major topic. Individual competence development (learning while working) and for any successful use of newly attained competences depends on organisation of work. At the same time, the unit must stay 'competent' and to fulfil its function within the organisation. This implies continuous adjustments to the changing requirements, coming from the varying environments of the organisation, as well as from the improvement goals set in the bargaining processes between units and top management. How an organisation supports learning on the unit level, is a crucial part of the general learning culture and – given the importance of the work organisation for individual learning and application of gained competences – crucial for the training organisation.

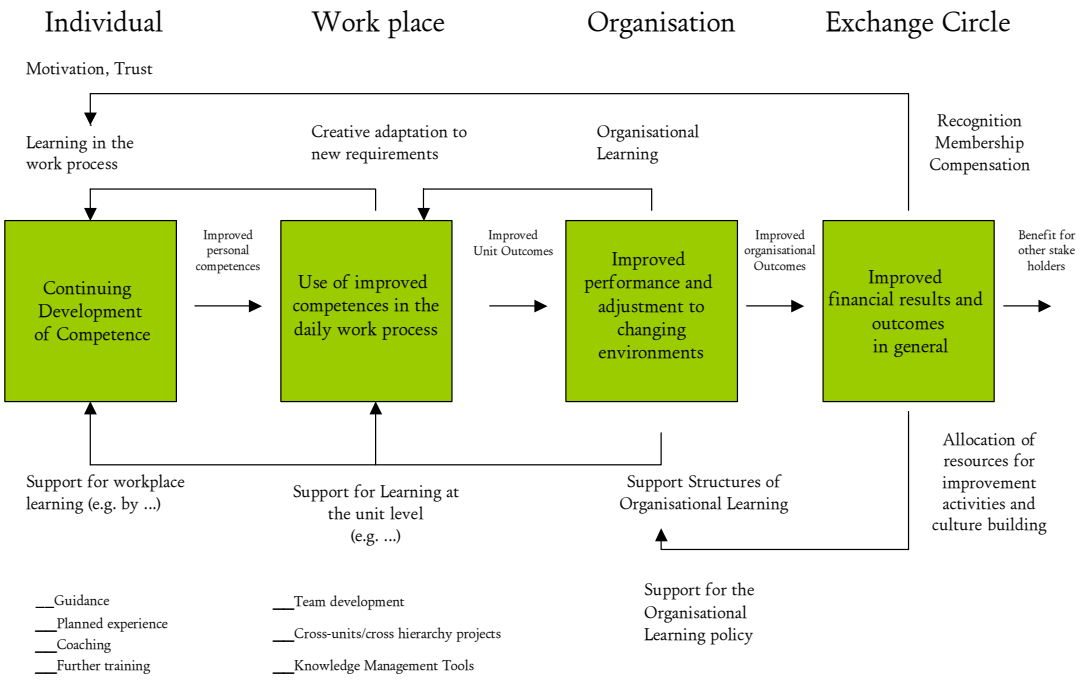
On the organisational level, improved contributions by the units, based on improved competences of the individuals, must be transformed into organisational success. Therefore, the organisation must become a learning organisation. Even for securing existence, it is necessary to constantly further develop the organisation, although environments do not change at the same speed for all organisations and in all markets. At the organisational level, discussing success or failures of training policies is essential for two reasons.

__Firstly, organisations needs channels to communicate and to support changes found necessary to improve or to survive. Any statement of objectives for the units of an organisation are in danger of being ignored, as long as resources supporting change are not allocated at the same time. The support structures for organisational learning are, at the same time, structures of organisational governance. HRD, therefore, not only connects to the general (strategic) management but serves as a tool of general management.

__Secondly, the organisation needs to know how successful use of competences on a unit level relates to organisation success. External 'shocks' may eliminate any particular contribution of workplace learning and training. At the same time, company's short-time success may also result from environmental factors (e.g. a 'warm' winter, an unpredictable shortage on the world market etc.). Any exchange of benefits of individual competence development is in some way linked to the success of the organisation and its actual fate. Even if many are satisfied based on individual or unit appraisal, the organisation has a wider horizon. For their contributions, the individual employees receive the most valuable goods an organisation can provide: recognition, membership and financial compensation. From these rewards received in exchange for the own contributions, major resources for the individual competence development come from trust and motivation. Any success of the organisation may also be converted in support and additional resources for the support structures for organisational learning and HRD and training in particular. Therefore, a good deal of the feedback of competence development depends on the general confidence within the organisation. In times of crises, the feedback mechanism often becomes damaged. Employees may lose motivation and trust, when savings measures lead to cuts in employees and in extra pay. Support structures may become deprived of necessary resources.

Diagram 5

Mapping interrelation between individual competence development and organisational Success



Own description

By considering the previously discussed interrelations, one sees the limited use of assessing the contribution of training policies to organisational success. Organisational results have no direct link to training as an input variable. The total organisation determines if training pays off. Within organisational development, the particular training culture will also be adjusted continuously. For the following section, we emphasise two conclusions:

__ Enterprises with a high use of company training can be expected to have successfully established an organisational setting where training leads to competence, competence produces improved results for units and units contribute to the organisation's satisfactory position. Benefits are shared in a way that leads to trust and employee motivation; sufficient resources support learning on all levels of the organisation. Even if it is true that for a short period, established training cultures may become dysfunctional and therefore subject to reform, in most cases they may be taken as a sign that an organisation has learnt to make good use of training. In short: we expect high training investment as a *sign* of a successful organisation and a 'learning organisation' (however, different in types). At the same time, we expect any successful organisation to become interested in training at a certain moment in its history: Even though we respect the option to become successful without training, we would expect that any successful organisation will adopt a training policy at a certain time and will not do without

a training policy forever. This adoption may be blocked for a longer period after the failure of training activities, which found not the right succession within the organisation to pay off.

__ Enterprises with a low use of training are mainly enterprises where the organisational framework is insufficient to make use of any competence development of individual employees. The reason for this shortcoming may differ greatly: Any connection between the missing elements will lead to a clear loss of potential and a likely failure of training activities. For example, workplaces providing poor learning environment are not likely to provide ground for any successful training policy – here, training can only aim at changing the workplace, which clearly restricts the options. So we expect enterprises with no or little training activities to act rationally: Their organisational setting lacks the prerequisites for intensified training.

2.4 Relative autonomy of training cultures of enterprises - Three new concepts for quantitative analysis in context

Enterprises' cultures of workplace learning and their use of training as a tool to support workplace learning and the target development of professional competences differ widely. If the hypothesis is withdrawn that these differences exclusively result from the different impacts of external factors, we must address the issue of enterprises' 'relative autonomy'[9] to develop their learning and training culture.

A number of concepts to address favourable cultures of workplace learning have been developed within traditions of research on workplace learning; using a methodology based mainly on qualitative approaches, action research and case studies. The same methodology has been used to identify enterprise cultures that are likely to hinder workplace learning. Within the research corpus on organisational learning and the 'learning organisation', again, approaches to detect and define organisational cultures built on intensified learning have been developed. In the following, we discuss a selection of these approaches in more details. *(Brewster, Mayrhofer, & Morley, 2004; Tjepkema, Stewart, Sambrook, & Mulder 2002)* (Fuller & Unwin, 2004)/(Evans et al., 2006) (Nyhan, 2003b)/(Nyhan, 2003a).

With all three approaches, the provision of training courses is not a major topic in its own right. Quite on the contrary: Given the often dominant equation of 'workplace learning = training in enterprises', the importance of training intervention for workplace learning and competence development is relativised. Investing in a reorganisation of work (e.g. organisation of tasks, organisation of leadership and feedback) and instruments of workplace learning (within the CVTS terminology called 'other forms of training') seems to be more important than increasing training activities. So far, an unfinished task has been investigating the significance of an

9 We use the term in the sense of Pierre Bourdieu; the practices of social actors are structured by the present and by the genetic structuralism of the social space in general and social fields – meant as structures within the general social space – in particular, however, there is a specific space of 'social game' not determined and subject to the sense for the game of the human actors and the organisations built by them. Understanding the opportunities to play within a given set of structures is seen as a core task of empirical research in the social sciences.

intense use of training courses within the approaches to identify companies with expanded option for workplace learning and competence development.

In the following, we try to sketch the missing link between studies of enterprises with an intensified culture of workplace learning and enterprises with clearly above average use of training courses.

We claim training as a highly specific intervention to reach a particular goal within the process of competence development. In the context of the enterprise, any training provision is not only linked to the present or future workplace, but is likely to be built up on the experiences and learning activities in the workplace. Any initiative for training to develop competence results in linking educational intervention and material presented and experiences made in the workplace. The provision of training offers 'additional input', 'structured help', a period of relief of work pressure and thereby time for reflection, in a group context, on experiences.

Compared to any other instrument to support workplace learning and competence development, the major advantage of training intervention is the ability to directly support a specific goal of competence development. To put it bluntly: given the right setting and quality of training intervention, carefully planned and time-bound training can support the development of competences that have not been developed in the normal work experience. Of course, no educational offer can guarantee that an individual or a group actually develop competences, but – remaining with a positive approach – training sessions have been developed to close 'holes' left open by daily experience and to 'overcome' obstacles blocking a route of competence development.

> Therefore, we emphasise training in its complementary function within general workplace learning and competence development. Only if work organisation allows additional competences to be translated successfully into new activities (i.e. more output, higher quality, or, in sum, more productivity), then positive effects for the enterprise and its employee will occur. It is not likely to find high levels of training activities over a long period of time that do not result in expanded competences and higher productivity.

We claim therefore – in principle and without going into details at this moment – that enterprises' investment in training courses serves as an indicator if an enterprise has successfully developed a work organisation where better professional competencies lead to better results of any kind or not. At the same time, we expect that most enterprises with an extraordinarily high use of training courses would be also among the enterprises with a work organisation favourable to learning while working[10].

For our analysis of enterprises' training activities and their general link to forms of organising workplace learning, we go back to our previous study. (Markowitsch & Hefler, 2005a). There, we have applied the distinction between training as a reaction

10 This does not mean that low investments in training necessarily indicates restricted opportunities to learn while working. We will discuss this point later.

of a current need, a reaction to a necessity or training as a way to improve something and take advantage of the results of this investment.

Training as a way of answering a need can be hardly be replaced or omitted without a costly economic reaction (e.g. damage of the new production facility, loss of quality management certificates). Factors influencing the needs answered rather directly by training are therefore likely to influence the quantity of training of this type.

Large differences in the training activity of enterprises – even of the same sector and the same size – are a clear indication that in enterprises with a highly active training program, the training sessions devoted to improvements are substantial and outnumber, by far, the training responding to specific needs. At the same time, we have to assume that enterprise with high training activities have learned to transform learning activities (input) first into improved competencies of their employees and second to an increased productivity of its workforce and, in particular, its organisational culture. The advantages based on a given training culture – seen as a specific support to general workplace learning and competence development – are likely to be obvious for any company with high training investments. It is thereby not of crucial importance, whether or not a company apply methods to assess the 'return on investment' of single training projects. Training cultures – as cultures of workplace learning – can be totally integrated into companies' cultures and strategic organisation.

However, the point remains that companies with high training investment are likely to be companies who have developed the organisational knowledge to profit considerably by an above-average use of training. Based on this experience and organisational competence, we assume that enterprises that continuously expand their training activity are driven not by external factors but by different kinds of benefits received from training, which are – at least in overall assessment shared by the organisation's management and members – far beyond the resources invested. To put it in words of investment theory: we suppose that in enterprises with high training investments, training is a more attractive investment than rival options for investments[11].

At the same time, we assume that enterprises with high training investments have minimized their risk of failed trainings. To successfully use training requires a good deal of experiences, competences and networks to acquire necessary resources (e.g. competent training providers). The high organisational competence necessary to use training successfully – beyond responding to specific training needs – will also probably create a gap between enterprises with rather restricted and enterprises with intensive use of training. The ability to effectively use training offers should be distributed throughout the organisation, so that training can become a tool at any workplace and within any enterprise process. When there is restricted ability to use

11 According to leading experts in the accounting of training measures, a return of investment (ROI) of 100 % and more *in the 12 months after the training* is within the normal range of expectations for training projects in companies. In some companies, training projects are not established, if the assumed ROI is below that value. Even returns of investments higher than 100% are reported and possible to achieve. Thus for training projects much higher ROI expectations can be found than for other forms of investments in enterprises (e.g. in new machinery, in R&D, in new products).

training offers, a significant part of training activities will not lead to any improvement of work competences or – if the problem is not acquisition of competencies but the organisation of work – to any increase of productivity (used in a rather broad sense).

We expect that organisations with sufficient competence to use training will show a steady increase in training activities. However, enterprises with a lack of organisational competences to use training are likely to remain at a low activity level and show increased training activity only occasionally when linked to internal events or external influences. We expect to see a 'take off' and a long-term increase of training activity for those organisations that have acquired the knowledge necessary for effective use of training. The distinctive criteria for classifying organisation into two categories would be whether an organisation has the competences to use training or not. As well used training activities – as a rather universalitic applicable tool – are so profitable in a global sense, we expect – at least in a probabilistic view – a clear linkage between 'having competence to use training' and the actual use of this option.

At the same time, we assume that he increase of the training activities for a single enterprise will eventually reach a plateau. Enterprises' training activity will not exceed a certain level. This results not from the law of falling marginal utility of investments, but because of limitations in any learning process.

a) Firstly, as in enterprise training, learning and any activity supporting learning is not the priority but should support the main activity within the production process. Therefore, any time-consuming activity not devoted to the core tasks of work is limited to a given quantity of hours.
b) Secondly, as enterprise training is targeted to support particular goals in individual's competence development or to support improvements in a unit's procedures, there are clear limits to the number of steps that can be taken at the same time. Aiming for too much in a too short time frame bears the risk of complete failure[12].
c) Thirdly, any learning activity places demands on those participating. Learning activities are likely to be successful only if they respect the limitations of learning processes within a given time and make good use of all the processes associated with each training session.

The upper limit of training activities depends on many aspects of the enterprise and its workforce. Nevertheless, we think that it is necessary to estimate a maximum level for each enterprise and we are very interested in working on a new option for 'benchmarking' the training activities of an enterprise by using as the central reference an estimate for a maximum level of training activities. We estimate that any calculations about this maximum training level will provide values within a comparatively narrow range for rather similar enterprises. We especially argue for one main dimension to be observed in this context – participation. Enterprises can fully use their given training capacity only by a high participation rate in training. So, improving organisational knowledge on how to use training will lead first to an

12 We have prepared a paper with a more detailed argumentation on this point, based mainly on reflection within the Gestalt tradition of counselling and psychotherapy; see (Nevis, 1987), (Nevis, 1997).

increased training activity in a small number of units within the enterprise and will quickly reach a maximum local value. Than, development will be mainly oriented towards a diffusion of training practices of different kinds throughout the organisation**13**.

To sum up our arguments, we propose three concepts as abbreviations of our claims:

1) We call training organisations determined mainly by training that can be seen as an answer to actual needs '(*Incidence) Reactive Training Cultures*'. Here, the training culture itself involves no independent momentum. Enterprises with such a training culture may be called '*Companies Meeting (training) Requirements*' (CMR).
2) We call training organisations characterized by training activities leading to organisational benefits and based on expanding ability to use training as a tool to support successfully competence development, '*self-expansive training cultures*'. Enterprises with such a culture may be branded as 'Companies Using Potentials' (CUP). Their training culture involves momentum and is to a significant extent independent from any external factors causing training needs.
3) We propose a category for any self-expanding training culture and call this point 'Maximum Training Activity' (MTA). Within their organisational history, enterprises that have adopted a 'self expanding training culture' will increase their training activity up to this MTA.

13 We would expect the change of work organisation in all cases, where units of an enterprise are not open for any competence development or use of training. So, enterprises with a very high participation rate in training activities are likely to have re-organised all their workplaces and/or have outsourced any activity not in line with a competence based, open work organisation.

3 Reasons for enterprises to train

3.1 Explaining enterprises' training activities by enterprise characteristics and internal reasons to train

The empirical research on enterprises' training activities tends to be divided into two main approaches. On the one hand, the quantitative approach seeks to explain enterprises training activities by *analysing enterprises' characteristics* or attributes (such as size, economic activity, existence of a work council, presence/absence of innovation activity). (see (Käpplinger, 2007); (Mytzek-Zühlke & Nitsche, 2006); (Bäumer, 1999). On the other hand, the qualitative approach tries to explain training activities by asking HRD practitioners and people responsible for training for the *specific reasons to train* in their organisation. This approach often provides a broad picture of different training activities, emphasising that training used in different formats and for different reasons. Quantitative data is hardly collected because responsibilities for training activities are often distributed and a single person cannot give a full account of all the different training activities in one enterprise.

Until now, these approaches exist in parallel and seem to have little to say to each other. The quantitative approach may be somewhat effective for explaining international differences in the average training behaviour of enterprises, but provides little information about intervention to increase training activities of enterprises. However, HRD practitioners must learn from successful use of training, so global information is less important.

This argument becomes even more persuasive by considering examples. Researchers have argued, that 'size', or the number of employees, is a 'reason' (actually: 'an explanation for training' (see, for example, critically (Käpplinger, 2007). The size of enterprises is regularly included in the list of features that are good predicators for training activity. At the same time, one cannot imagine a company official justifying training activity because of company size.

Ambiguity in the use of the notion 'reason to train' may be part of the problem. Normally, an 'occasion', 'event' or request for training is given as a 'reason' as if no decision-making process shaped the decision to follow through on the request for training. At the same time, the 'request' replaces the actual targets – the goals – of particular training. The actual training event seems to provide a 'reason' and not be chosen in accordance to goals connected with the training decision. The next section clearly outlines four parts in the commonplace use of 'reason for training'. Only for some training activities, a 'request' can be easily found. Here, the training decision (not the targets involved) are reactive to a desire: while it is not clear, if training results when the request develops, it is clear that no training will be offered if the request is missing (see the example 'new entrants'). In many other fields, the 'request' results from screening for successful training options to support processes: here the decision to invest in training steers the search for promising training options.

Overview 3.1
Understanding 'reason to train'

	'Reason to train'			Training event
	Requests for training	Decision to train	Goals pursued by training	
Explanation	A particular process in the enterprise can be supported by training (possible training exists or can be developed)	Confronted with the possibility, the enterprises decide to train (reactive mode); enterprises screen processes for possibilities to use training ('active' mode)	Decision to train justified by certain goals/expectations on the training results (compared to the results of the process without training offer)	The actual training offer, which supports sufficiently to meet the goals justifying the training decisions
Examples	New entrants	Reactive mode	E.g. support integration, speed up the process of becoming a full member of the organisation	Seminars for new comers; standard seminars on certain topics (e.g. security policy)
	New software	Reactive mode	E.g. reduce time needed to become productive on the new system	Internal courses for all employees
	Development of sick leave	Active mode	E.g. decision to support a program to reduce sick leave, including a training package for work-leave balance	Courses on work-live balance
	Systematic screening of new technologies applicable for the enterprises (division of labour between nominated experts)	Active mode; each core experts decides on the number of promising events in his/her field voluntarily with a certain range	Strategic competence management;	Highly specialized training offers/conferences throughout the globe

A core difficulty shared by both approaches is the dominance of the idea, that training mainly answers a certain need and that 'reasons for training' can be approached by investigating 'needs to train'. Differences in training activities therefore mainly appear as differences in the needs to train or even as differences in the frequency of requests for training. Training seen as an investment – even dominating the rhetoric of the economics of training – is not taken as seriously as training answering a rather specific 'need'.

This is even more surprising as 'needs' – or requests for training - involve tasks crucial for all enterprises (e.g. new employees, new products). In all enterprises, employees have to master tasks, which involve learning activities, and training (as one function among others) exists as one possibility to support learning activities deriving from the work processes. The learning process may be successful even without training, but maybe in a less satisfactory or efficient manner. So, theoretically, training should be seen as an investment and not as an answer to a given need, as 'needs' (e.g. to adapt to a new situation) may also be satisfied without the support of training.

Before proposing a model on how to combine these different approaches (see Chapter 3.3), we make a new proposal to deal with the variety of options to invest in training.

3.2 Towards a new classification of enterprises' reasons to train

Classifications of reasons to train are difficult and often clearly restricted in their explicative value. Only specialized discourse, e.g. in HRM or quality management, that provides lists of reasons to train can provide a satisfactory level of coherence. At the same time, all classifications on training normally belong to a particular field of practical activity (fields of management) or research (e.g. economy of education, organisation psychology).

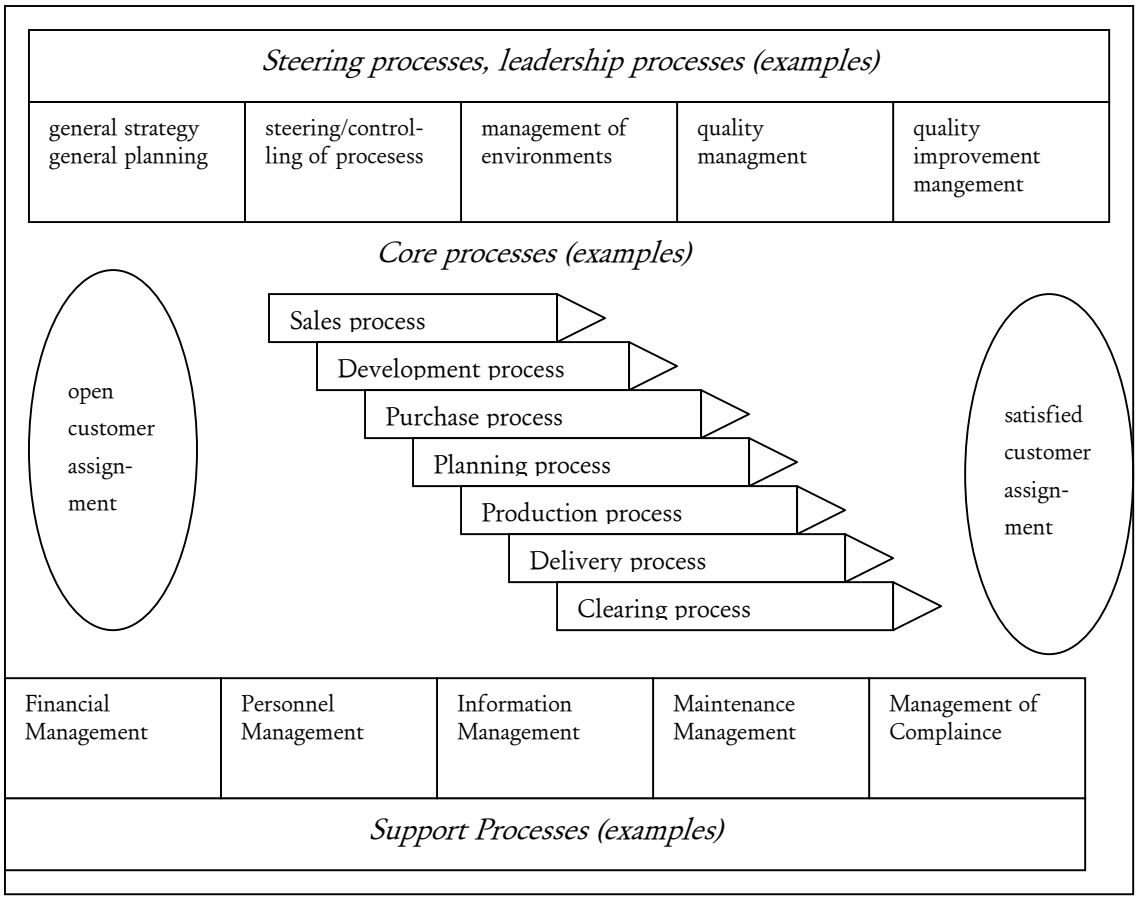
To deal with the variety of reasons to invest in training and the difficulties to give a satisfactory overview without the restriction on particular goals of specialized practices or research traditions, we propose the following scheme.

- Firstly, we adopt a process model of the enterprise, with its core processes, leadership processes and supportive processes. As in all processes, targets connect with the competence of individuals and teams. Developing the necessary competences can become the goal of any training activity. So any mapping of reasons to train will follow enterprise processes and its short-term and long-term requirements. (see Overview 3.2).
- Secondly, we classify training interventions within the processes according to the time dimension and ask, if they are 'short-term' reactions to current interests, 'long-term' adaptations to lasting developments already anticipated or 'strategic' interventions aiming at the adaptive 'learning' capacity of the process. Training used in each process can thereby respond to a current 'need', to a future 'requirement' or a strategic decision. (see Overview 3.3)
- Thirdly, we try to systematize 'patterns of training provisions' found within the enterprises. Overview 3.4 tries to systematize the patterns, using two dimensions. On the one hand, patterns appear when the focus is on individual employees/groups of employees with certain characteristics or on organisational requirements/goals (e.g. implementation of a new technology, a new strategic organisation, a new work organisation). On the other hand, we use the 'cyclic' or 'discrete' differences (answering a particular constellation in one moment of time) as dimension to order the eight patterns. We stress that even when these 'patterns of training provisions' are linked to training needs/goals arising within the

enterprise processes, they often have their own momentum in generating training activities[14].

Overview 3.2

Divided views on reasons for enterprises to train



Source, (Binner, 2005), slightly adapted, author's translation

14 A major topic within the training organisation is the necessity for efficacy and efficiency reasons to use typical patterns of training provision, e.g. offering training in an annual training program, offering training within a structured program leading to defined levels of competences or offer extended training packages to support change processes. At the same time, the momentum involved in any form of lasting organisation bears the risk that actual training needs and training offers starts to differ significantly. Therefore, training organisations – not different to any other supportive process within an organisation – will likely reform and adapt quite regularly. (see Mildenberger 2003 as a typical example for the reorganisation of the training provisions at Mercedes-Benz or compare Hefler et. al 2006, p. for the danger involved in annual training catalogues in large corporations).

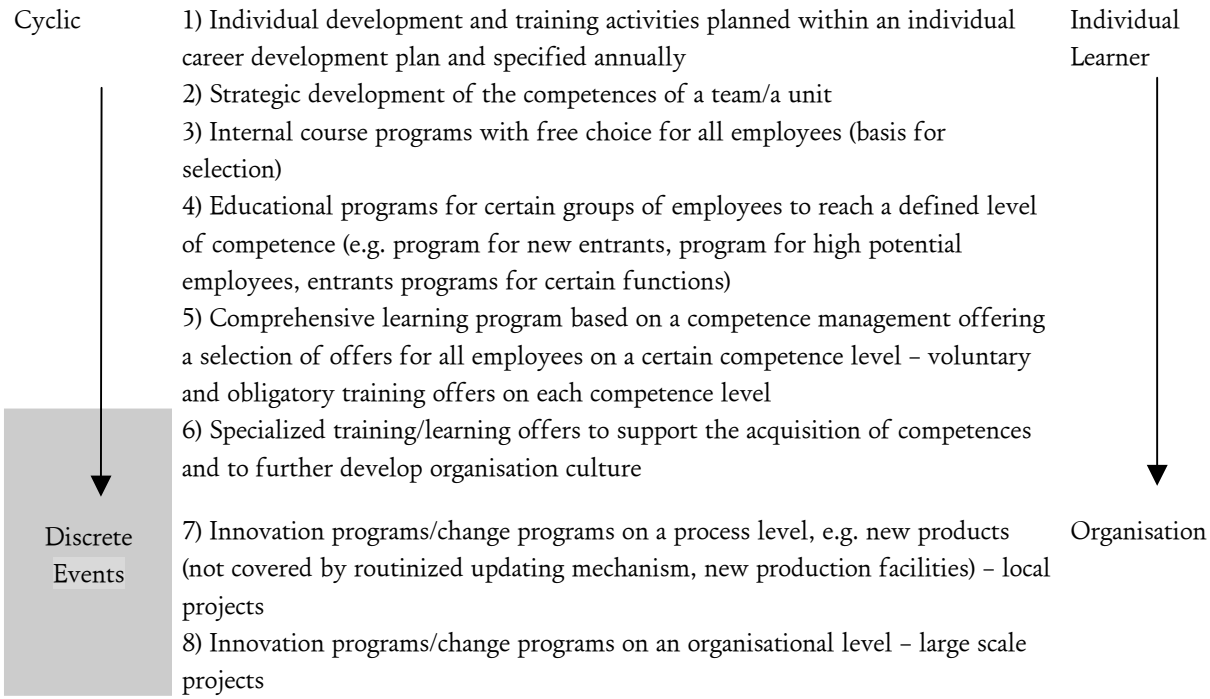
Overview 3.3

Time dimension of reason to train – Time span between the training activity and the process focused on by the training connects to:

Time dimension of training	Description	Examples
Short term (reactive)	Within company processes, a need for learning occurs; training could satisfy this learning need; the decision to use training is made after but in close connection to the learning need within the process	Individual course on specific software for a new entrant; a course on the use of a newly acquired production technology
Long term (anticipatory) reaction	Within processes, types of learning needs occurs regularly and training is seen as a particular way to support this learning in an anticipatory manner – a particular, local need is not addressed but recurring requirements	Training offers individually made within the appraisal interview process ('supporting each year individuals goals for the employees'), Training programs for new entrants, programs for future managerial staff (high potential programs), regular seminars on new regulations
Strategic	Training can enlarge resources and innovation capacity for the processes – training offers chosen without actual connection to ongoing processes, but expected to contribute to organisational learning (not the single training event, but all training activities should contribute to the available resources); Training embedded as one characteristic of the learning organisation	Implementing a training culture motivating each employee to participate in a minimum of training activities each year; Systematically testing promising innovative training offers on the training market; developing strategic competence management and developing responsible core experts

Overview 3.4

Formats of training and further education



Overview 3.5

'Reasons' for training in Austrian enterprises (see (Hefler, 2006)

Enterprise	Verbal describtion	Process (Process-level)	Time dimension	Format
17 (retail trade 20-249)	Training for the market introduction of a product with highly specific features	Core process sales	Short term	(2) Team training
	Training offers within the appraisal interviews	(All processes)	Long term	(1) Individual training chosen during appraisal interview
	Improving entrepreneurial thinking of the employees	Steering processes (general strategy, general planning)	Strategic	(7) Innovation on a process level
10 (retail trade +1000)	Program for future shop managers	Personnel management (personal planning)	Long term	(5) Program for groups of employees
	Training offers within the appraisal interviews	(All processes)	Long term	(1) Individual training chosen during appraisal interview
	Program to deal with the anticipated negative reaction to an important cut in the head count and the closure of important production facilities	Strategic management (management of crisis); personnel management, information management	Short term	(8) Innovation programs on organisational level
13 banks and insurance (+1000)	Program for new entrants in functional careers	Selected core processes	Long term	(4) Programs
	Expert programs (three steps up to certified Master program)	Selected core processes	Long term	(5) Development Programmes
	Training offers within the appraisal interviews	(All processes)	Long term	(1) Individual training chosen during appraisal interview
	Program for increasing sales for new product type	Sales, innovation	Strategic	(2) Teams

Based on these three dimensions, training activities and its reasons can be satisfactorily described (see Overview 3.5).

Applying the three schemes to some of the surveyed enterprises shows that the training activity depends on rather different elements and that the firms have highly divergent reasons for training that will likely change over time. At the same time, certain combinations of 'processes-levels', 'time-dimensions' and 'formats' will probably involve a significantly higher training volume than others. This is true especially for

- regular programs for particular groups of employees (new entrants, preparation courses for internal functions, high-potential entrants); even if these programs only involve simultaneously a selected number of employees, their comparably long duration let them contribute significantly to the general training activity of individual firms.
- discrete events on the process level or especially on the organisational level, therefore the special programs involve normally a comparatively high number of employees and – even those of a short duration – contributes significantly to the training volume in the particular year.

Any single combination must be interpreted from the perspective of the general training culture of enterprises. For example, the individual training planned in connection with the annual appraisal interview: In some enterprises, a defined training budget per employee also indicates an expectation to participate significantly – at least in the long run –in training. In the given enterprise, the individually chosen training (and also the training chosen on the team level) will contribute significantly to the total training volume. The same setting in enterprises with a poorly developed training culture may only marginally contribute to the total training activity.

Having demonstrated how reasons to train in enterprise may be analysed, we return to the fact that now we do not have data sources following such a detailed scheme. As we have already emphasised for the question of training cultures, we can strongly argue for the hypothesis that the differences in the average training activity on the country level can be traced back to *different patterns in enterprises of reasons to train.* In the following section, we show how the lack of data can be partially overcome by bridging the different approaches introduced in Chapter 3.1.

3.3 Requests for training and 'reasons to train' – bridging the gap

We have emphasised that often a 'request' (a 'cause') for training is seen as a reason to train; while, actually, a decision to train results from certain desire involving certain targets, which should be supported by the training activity.

Training can be used within the enterprises to support a non-definable large number of purposes in all processes. Nevertheless, support by training can be a well-established practice in a broad range of companies. Typically, training requests include supporting new entrants by special courses, supporting future managers or supporting use of a new software version. In some cases, these 'requests' stem from legal requirements (e.g. any employee using a forklift should complete forklift driver

training). Learning more on the differences in the frequency of these requests may offer indirect access to the 'reasons for enterprises to train: If enterprises have more events of a certain type – e.g. more newly hired employees – and these enterprises have a higher training activity than enterprises with less events of the same type – e.g. no newly hired employees – then this can indicate a certain type of event's importance as a reason for training. To rephrase the argument: enterprises with a higher number of newly hired employees should be enterprises with more training. But we must state that enterprises may integrate new employees with or without planned training offers!

Thus, the problem is that the argument remains rather weak, because we have four elements, of which only two are known.

- the number of requests for training of a certain type
- a (non-observed) decision to answer or not to answer a request for training with an actual training offer
- an enterprise's (non-observed) training culture responsible for the relative importance of training and answering certain requests
- the total training activity of the enterprise

Because the enterprise's decision to support or not support a process with training courses rests relatively independent from external forces and depends primarily on the established training culture, the frequency of requests for training of a certain type may be a good indicator for the training activity in some countries but not in others (see (Mytzek-Zühlke & Nitsche, 2006). Thus, differences in levels of training events have heuristic value only.

We claim that the enterprise's general training culture shape the possible relations between 'differences in the frequency of requests for training' and total training activity. To return to our example: Enterprises with a reactive training culture may decide to support new entrants by training and so – given that training clearly lies below the existing potential – the total training activity will significantly change with the number of new entrants each year. This is not true for enterprises with expansive training cultures. They are also likely to support new entrants with training offers, but they do the same with most employees each year. So new entrants may change the portfolio of training events observed, but only marginally change the total training activity. In this case, because new entrants do not change significantly the overall training level, a quantitative analysis may even conclude that this type of enterprise does not support new entrants with training: the general high use of training may overshadow the training support for new employees.

As shown in Overview 3.6, the value of 'requests for training' as an indicator for general training activity depends on the decision of enterprises *and* of their training culture. Differences in the number of requests for training only narrowly explains differences in the total training activity,

- if a significant number of enterprises reacts to the requests with training and
- if a significant number of these enterprises follows a reactive training culture.

Therefore, the proportion of enterprises with reactive or expansive training cultures affects the impact of requests for training on the average training volume in a

country. More enterprises with expansive training cultures should result in less variation in the frequency of requests for training.

Overview 3.6

Decision tree – Influence of differences in the frequency of requests for training on the total training volume

<table>
<tr><td></td><td>Frequency of requests for training of certain types</td><td>Frequency of requests answered with training</td><td>Relative weight of training connected within the request – distribution between reactive/expansive training volume</td><td>Increase in the total training volume</td><td>Total Volume</td></tr>
<tr><td rowspan="4"></td><td rowspan="3">(1) Frequency of requests high

(e.g. new entrants)</td><td rowspan="2">(1-A) Positive decision to train

Special offers/more offers for new entrants</td><td>(1-A-I) Reactive training culture

(additional training activity)</td><td>Increase in the training total activity</td><td rowspan="4"></td></tr>
<tr><td>(1-A-II) expansive training culture (activity replaces other activities)</td><td rowspan="3">no change in the training activity</td></tr>
<tr><td>(1-B) No decision to train</td><td rowspan="2"></td></tr>
<tr><td>(2) Frequency of requests low</td><td></td></tr>
<tr><td>Example ‘New Entrants’</td><td>Differences Germany/Denmark 8 %</td><td>Differences in the number of positive/negative decision unknown</td><td>Distribution between reactive/expansive unknown</td><td>Increase in quantity</td><td>22 hours/ employee

8 hours/ employee</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>Retentation Rates between 70 % - 90 %</td><td colspan="3">correlation 0.621*</td><td>Training activities</td></tr>
<tr><td>Macro level - comparison</td><td>Differences in the frequency between countries</td><td colspan="3">correlation →</td><td>Differ-ences in the training volume</td></tr>
</table>

The example of job retention

We can apply the same argument when using aggregate average data on country level instead of individual datasets of companies: Still, the actual non-observed reasons for training allow only rather tentative arguments. Statistical correlation may express not the supposed relation (e.g. between 'new employees' – 'training offers' – 'level of training activity') but other features of the social space (e.g. the distribution of enterprises with a certain training cultures). Clearly, a correlation between an indicator expressing a correlation – e.g. between lower job retention and higher average training activity – may suggest either

- that a higher job turnover rate leads to higher training support for new entrants and thereby to more training activity or
- that a lower job retention rate (among other features) represents a more flexible labour market favourable for the development of companies with an expansive training culture.

Without information on the actual reasons for training and without information on the proportion between enterprises with reactive or expansive training cultures, any correlation between indicators representing 'requests' and the average training activity must be treated very carefully. The following box provides an estimation experiment on the possible impact that differences in employee mobility can make on the macro-data for training. The results remain with highly questionable details. Nonetheless, any approach that uses new entrants data to calculate a figure for actual training activity will result in a limited proportion of the training volume. Comparing the number of new entrants to the number of the leading companies has quite limited effects: no chance at all to explain the training activity directly resulting from training offers for new entrants.

One concludes that that the relatively strong correlation of job retention rate and average training activity can be explained only by referring to the distribution of enterprises with reactive and with expansive training cultures and the correlation with other simultaneous correlations (e.g. between economic strength).

Box 3.1

Example: Estimating the impact of differences in job retention rates

A lower percentage of employees who stayed in their jobs correlate with a higher average training activity (Correlation –0.621, significant on the 0.01 level) (Sørensen, Møller, Festová, Kalousková, & Veleta, 2007). Seen by itself, the job retention rate is a good prognostic tool for estimating the relative training performance between countries. Differences in job turnover rates can be seen as differences in occasions to use training to support the integration of new entrants. In Denmark, the job retention rate is 29 per cent lower than in Greece; the differences among the other countries are much smaller. When enterprises support new entrants by training, what impact might the differences in the job retention rate have?

In a first step, it is important to notice, that two factors influence the job retention rate, the number of contracts lasting up to six month (primarily seasonal workers) and by contracts between 6 month and a year that represent primarily new entrants likely to remain in the company. For this number of employees with ongoing employment of 6–12 month, we could expect enterprises to make additional training offers. The following table provides estimates for the following assumptions:

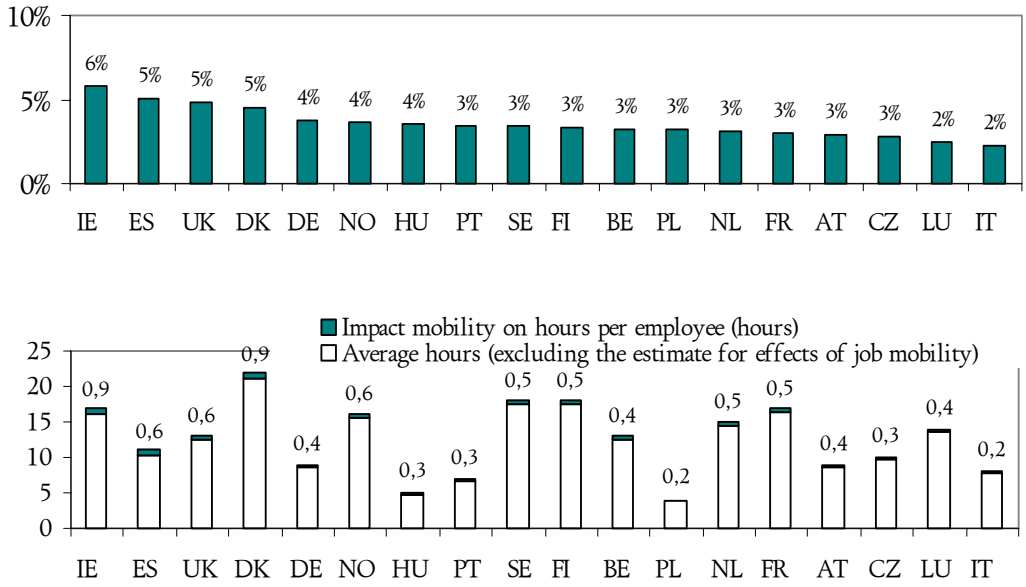
__50 per cent of new entrants, starting in enterprises with training offers, receive an additional training offer.

__the additional training offer covers the same number of hours for the average participant in a country.

Diagram 3.1 shows that the expected impact of the extensive estimate for training linked directly to new employees is comparatively low in all countries (up to six per cent of the measured training volume), that in the expected proportion of the indicator 'hours in training per employee – all enterprises' differences between the countries are comparatively low and that among the countries with above average mobility, also lies countries with low and with high average training activity.

Diagram3.1

Estimates for additional training offers for new entrants (employees with a contract of 6–12 months)



3s research laboratory, www.3s.co.at

Source: OECD (Job Retention) – Eurostat (CVTS) Own Calculation

Prognostic value of indicators for differences in the frequency of occasions to train

In the following section, we discuss indicators that may express differences between enterprises' processes and that may help explain differences in the frequency of requests to train. We also ask whether correlations between the indicators might explain differences between the countries' levels of enterprises with expansive training cultures.

We discuss three different levels of indicators;
__ indicators referring more or less directly to core processes or support processes;
__ indicators expressing the industrial relations in the enterprises;
__ indicators reflecting enterprises' embeddedness in their society's approach to lifelong learning.

Overview 3.7
Decision tree – Influence of differences in the frequency of requests for training on the total training volume

	Examples		Statistical correlation with training hours/employee	Occasions to train	Probability of enterprises with a expansive Training culture
Differences in Processes	Job Retention		–0.621(*)	not decisive	important
	Innovation	Innovation investments	0.397	not decisive	important
		Investments in training and product placement	0.312	not decisive	important
		Innovation index	0.807(**)	not related	very important
Differences in Work relations	Trade union density		0.656(**)	not related	not related!
	Job satisfaction		0.747(**)	not related	important
Enterprise Training culture in the general culture	Hours of training of non-employed		0.755(**)	not related	important
	Esteem for education		(0.280)	no sufficient operationalisation	no sufficient operationalisation

Having previously discussed in detail the example of job retention, we turn to innovation. Innovation activity is among the most discussed influences on the training activities in enterprises. Because training is an innovation activity (and also seen as

such in the Community Innovation Survey), one expects to find a clear link between innovation activities and training.

There are different approaches to addressing the issue. Within the CVTS questionnaire, questions on innovation activity have only two possible answers (yes/no). On an aggregated level, enterprises with innovation activity have higher average training activity. Because innovation activity is not quantified (it may have an impact on one or on all workplaces in a company), larger enterprises much more likely will have at least some innovation activity, the differences between innovative and non-innovative firms reflects mainly size of firm and not results of the innovation activity.

Therefore, results based on micro-level data for training participation do not provide the expected strong impact for these indicators. ((Mytzek-Zühlke & Nitsche, 2006) 20). In interviews, representatives of enterprises also indicate that the most traditional ('trajectory bound', see (Hefler, 2006) frequently do not regard innovation activities – e.g. courses concerning new software or production facilities – as training and do not report it completely to the HRD office. These courses are seen as part of the investment (as supplementary costs for innovation) and are budgeted outside the normal training organisation. Probably a significant part of training activities connected directly to innovations is not covered by the enterprises' training statistics.

On a macro-level, total innovation activity of enterprises and average training activity are less clearly connected that expected. Data from the Community Innovation Survey (CIS III), expresses the relative expenditure for innovation of all enterprises surveyed; data for industry and service (excluding public administration) enterprises do not show a clear correlation between average training activity and innovation expenditure. This fits the pattern of innovation activities concentrated highly in a small number of enterprises. Countries may have comparable high average innovation expenditure and comparatively low average training activity – e.g. Germany – and vice versa – e.g. Denmark. Because the concentration of spending for innovation varies significantly between the countries, any analysis on the macro level reveals little about the interplay between innovation activity and training.

However, the European innovation index, summarizing country characteristics on innovation, is a good predicator for the average training activity (Groenez & Desmedt, 2007). Again, innovation measured on an aggregate level can be mainly used to express the proportion between enterprises with a reactive and an expansive training culture, but not a direct relationship between the quantity of innovation activity (e.g. measured as spending for innovation) and a training activity in the enterprises. Or, more directly: An enterprise's level of innovation may imply an expansive training culture within a learning organisation, but there is little chance to trace differences in average training activity back to particular innovation activities. Using the innovation index within an explanatory approach means clearly to argue on the level of socio-economic background conditions, not on the level of differences in processes within enterprises.

Labour relations are often seen as relevant for enterprises training policies. Employees' representatives may call for an active role of enterprises in training, either

on the company level or on a global level. So differences in the strength of the labour union may signify differences in the opportunity to request more training investments. The CVTS indicators, neither on the aggregate level nor on the micro level, do not support the hypothesis of a strong connection between agreements on training and training activity. Labour unions may or may not negotiate for training and there may be large differences in the approaches of a country's unions to training; also indicated by an enterprise's reactive or expansive training cultures. As enterprises increasingly prepare to use training as an investment instrument, employees' representative will negotiate less on mere volume of training. They may negotiate for a balance of interests, the offer of certain forms of further education (e.g. the access to academic programs) and conditions for training (e.g. regulations on payment for extra time spent on training events). The more enterprises train, the representatives of enterprises will less likely emphasise that topic.

Therefore, the positive correlation between the strength of trade unions (trade union coverage) and the average training activity are not the result of the union's direct influence on training decisions. Unions may influence the general orientation of social policy and the balance between high wages and low-wage cultures. In addition, the 'Scandinavian' model countries primarily determine the positive correlation. However, to conclude that we cannot expect a direct impact of trade unions on training activities does not mean that trade unions cannot take a leading role in improving training culture, on a national as well as on a company level. Because quantitative data does not indicate anything about the success and failure of particular policies, only an analysis of trade unions' actual policies could help explain their impact on training activities.

The successful use of training also depends on the general climate and employees' job satisfaction. Unhappy employees are not likely to contribute to successful training activities. A higher level of job satisfaction would probably broaden options to use training in enterprises. Data are missing to explain the predicative value on a micro level. On the macro level, data on the proportion of satisfied to dissatisfied employees indicates primarily pleasant or unpleasant workplaces. These data, similar to that of average training activity, express mainly the composition between firms of different types and only, on a second level, differences in the actual behaviour of the enterprises. Therefore, the 'proportion of employees (very) satisfied with their job' is a surprisingly good predicator for a country's relative position in training, even if the effect can hardly be traced back to actual activities on the enterprise level.

Enterprises are primarily analysed as formal-juridical entities, while actual humans act on behalf of this entities. These humans are embedded in a broader socio-cultural context. All members of the organisation – managers and subordinates – are at the same time members of their societies and participate in a given symbolic culture. The managers' and employees' shared backgrounds influence decisions in enterprises. Indicators of practices in or attitudes towards lifelong learning outside enterprises can hint as to how these more general approaches to lifelong learning may influence training decisions. By definition, these general influences do not apply to a particular occasion but probably influence the companies' training cultures.

A surprisingly good indicator for the average training activity in the enterprises can be found in unemployed workers' activity in non-formal education. This means that societies' shared characteristics influence both the training activity in the enterprises and the training activity of the individuals. (More details are discussed in Chapter 4). At the same time, enterprises remain relatively independent in their behaviour and can adopt an expansive training culture even though the societal space does not strongly support this strategy. In countries with a low general participation in LLL, the comparatively few enterprises with high training activities have an even more important role in creating substantial learning opportunities.

Studying indicators on attitudes towards education and lifelong learning is another attempt to understand society's influence on the training in enterprises. Results are not convincing, as training activity and expressed attitudes towards education seem to have little relation. In societies, a comparable high pressure to affirm the importance of learning and lifelong learning can coexistence with few possibilities to participate in particular learning opportunities.

3.5 Conclusions and outlook – Training as an universal tool to support improvements

We would like to draw three main conclusions from our discussion.

First, we have shown that currently no database exists that would be useful for analysing the actual importance of different reasons to train in enterprises. Strategies to overcome this data shortage are clearly limited. Without detailed information on the proportion of enterprises that respond to a specific event or occasion with a training offer and without an idea of the distribution between enterprises with reactive and expansive training cultures, we cannot interpret the relationship between indicators for 'requests to use training' and the observed average training activity. As the number of enterprises answering certain events with training offers and the number of enterprises applying an expansive training culture can be different, correlations between the aggregated data yield only provisional conclusions.

Secondly, the more enterprises train, the less impact a single decision to train can have on the total training activity. Thus, a positive correlation between an indicator for the frequency of a certain type of training request and the training volume probably expresses more the distribution between certain types of enterprises.

Thirdly, the differentiation of 'reasons to train' – seen as the reason to invest by using training to reach a goal – and request for training, when training decisions actually can be made, support the general shift from a primarily 'need' oriented to a 'potential' oriented perception of company training. Because enterprises have nearly infinite options to set targets and to improve their processes, there are nearly infinite options to use training. So for training as investment, limitations result not from the frequency of requests for different types of training, but because employees can only follow a limited number of improvement goals at the same time. Additionally, all general limitations for investments apply. Therefore, any approach focusing on

differences in the requests for training must fail; at least for all enterprises that have partly or fully adopted an expansive training culture.

This chapter has also shown that we must limit our expectations of the explicative value of analysis of macro data. The relationship between different macro indicators and the average training activity gives us the opportunity to examine the distribution of values for the 25 countries. The same analysis says little about the differences in the actual training behaviour in the European enterprises.

4 Probabilities for dispersion between enterprises with expansive training cultures – Reflecting the influence of different socio-economic states

4.1 Introduction – Comparing social spaces structured differently

A major survey among enterprises (N=8216) with 100 and more employees conducted by a network of research organisations in 18 European Countries showed comparatively similar results for the participating enterprises in 1999 (Brewster et al., 2004). The human resources policies on company training was among the most homogeneous policy with a clear tendency to become more similar in countries throughout Europe (ibid, 426). Nevertheless, differences in the behaviour of rather similar enterprises are significantly smaller than differences between the country averages for indicators on enterprise training.

Country average figures are not only influenced by the different behaviour of enterprises, but also by differences in the economic structure and the socio-political space of the countries. These well-known and well-accepted observations are often ignored, when interpreting country averages on training.

The local branch of a multinational insurance company may adopt comparatively similar approaches to training, no matter if the company is located in Denmark, Germany, Spain, Finland, the Czech Republic or Lithuania. Certainly, interrelation between specific local conditions and the training cultures can be expected. However, the dramatic differences in average training figures (Denmark 22 hours per employee, Germany 9 hours, Spain 11 hours, Finland 18 hours, Czech Republic 10 hours and Lithuania 4 hours) are highly influenced by the countries' economies and socioeconomic factors that influence its economic structure. For example, the minimum wage level influences greatly an economy's structure by limiting enterprises' possibilities for a low-wage, low productivity strategy. Therefore, the minimum wage policy affects the economic structure and thus the likeliness of finding enterprises with a certain training culture.

Instead of asking for the reason for training, one should ask 'What influences the distribution between non-training enterprises (enterprises with a rather low activity) and enterprises with significant training activity with an expansive training culture?' 'Why is it likely to find substantially more enterprises with a low training activity in one particular country?' 'How does a specific factor reduce or expand the number of enterprises with low training activities?'

When investigating the comparative differences in the training behaviour of organisations or individuals, conceptions must be the developed of the social actors observed (the enterprises, the individuals) and the social space (defining the options of and relations between social actors). Structures in the social space clearly inhibit or foster the observed behaviour of the social actors. The concept of 'system characteristics' (e.g. (Groenez & Desmedt, 2007) or 'framework factors' can be seen as an attempt to represent these structures of the social space. These structures can be

rephrased as fields of forces in the social space: without ignoring the relative degree of freedom of social actors, the fields of forces influences the social trajectories of the actors and their relations. At first glance, the existing structures of a social space predetermine the probability of finding actors on a certain trajectory i.e. actors applying a set of practices over a longer period.

For international comparison, we propose to differentiate the structures' effects in the social space into two main categories,

__ Firstly its segregation power, dividing the actors into 'included' who take part 'in the game' and 'excluded' who cannot participate in activities of a certain kind.

__ Secondly in structures influencing the participants' game in one way or another.

Any social structure can be described, if its main impact is as an including/excluding power or if its main effect is to intervene – to influence – the activity of the included, while not affecting the excluded actors.

We return to the first argument in more detail. Structures of the social space have to be partially understood as clear divisions or strong separations of the social space into parts dominated by different influences. The borders between the segregated parts of the social space are crossed relatively seldom. Structures divide the social space so that some actors are definitely excluded from access to training or support of their learning activities. Any influences fostering access to training have no impact at all for all actors excluded in principle due to dominating principles of segregation. Only factors reducing these segregating structures' power have any effect on the access to training for the excluded actors.

We would like to illustrate these structures with two examples. Firstly, we refer to enterprises with such a low productivity and return on investment, that no additional investment – and definitely no training – is possible. These enterprises are definitely doomed to disappear but may exist for some time by exploiting any remaining resources. The locally situated competition establishes the segregation and marks the zones of successful or growing companies and companies with – as long as no radical turn-around happens – rather short life expectancy.

Secondly, we address migrants with little second language competence working in a highly segregated, low payment segment of the labour market and being completely confined to their migrant peer group. Because competence in a countries' dominating language is often a prerequisite to participate in any training or to take a job with enhanced possibilities of learning while working, these migrants groups are definitely excluded from training. Given their social isolation, often the result of a set of discrimination and segmentation mechanisms, overcoming the barrier of illiteracy is quite a challenge that requires a substantial investment of time and money. In combination with poor wages and little prospect to change their situation, migrants belonging to discriminated groups may be completely excluded of any training offer throughout their professional career.

Actors excluded by selected structures of the social space do not find relevant other structures that foster or inhibit access to training opportunities. Only 'interventions' (such as publicly funded programs for training of employees in declining enterprises) that overcome the exclusionary power of these structures can open the borders of the

social space, so that actors can change their position. Only revolutionary developments in the social space – e.g. by changing regulations to allow free access to the labour market – may overcome systematically the segregation of the social space.

Actors in this excluded segment of the social space are really excluded from opportunities; their own choices or alleged lack of motivation did not cause their situation. This remains true, even when the history of exclusion clearly has its impact on the 'momentum' of the social actors – the habitus of individuals, the culture of enterprises. They may stick to their excluded space even when the borders become permeable for a certain time. They may also promote an ideology justifying their exclusion in one way or another or explaining the exclusion as particular preference.

The second argument regards structures supporting or inhibiting certain behaviour of actors that function only in specific segments of the social space. Here, any structure may have an actual impact on the behaviour of all actors located in the specific segment. At the same time, any structure may influence the 'proper motion' – the habitus, the culture – of the social actors in the long run. The history of structures in the social space can be identified in the distribution of social actors with different 'internal' structures, which interact with the present structures of the social space. Differences in the historic development of the social space provides the basis for differences in the interaction of the social actors with their different 'proper motion' and the actual structures in the field. Unsurprisingly, in different social spaces, similar structures may result in different behaviour of the actors. For this reason only, differences between countries could be described as differences in their 'social actors'.

The proposed concept of enterprises with reactive or expansive training culture provides a core example for this kind of reasoning. Both types of enterprises are placed within the part of social space with possible training activities. Any specific structure – e.g. the up and downs of economic development or the presence/absence of a public co-funding scheme – will have a clearly different impact on the two types of actors. While enterprises with expansive training cultures are defined by the high 'momentum' of their training activity and therefore only partly subject to any external influence, enterprises with reactive training culture are highly influenced by changes in structures of the social space. Here again, structures of the social space contribute to an increase or decrease of 'momentum' of the actors in the actual zone of the social field. For example, we ask whether a particular structure's ongoing dominance will lead to the improvement or erosion of expansive training cultures.

This schema – actually derived from our interpretation of Pierre Bourdieu's approach to social space – offers the opportunity to describe more systematically how 'a structure of the social space' (in macro analysis normally represented by a quantitative or qualitative indicator) 'is expected to have an impact on the training behaviour of enterprises'. Now, we can differentiate three main types of influence of a structure:

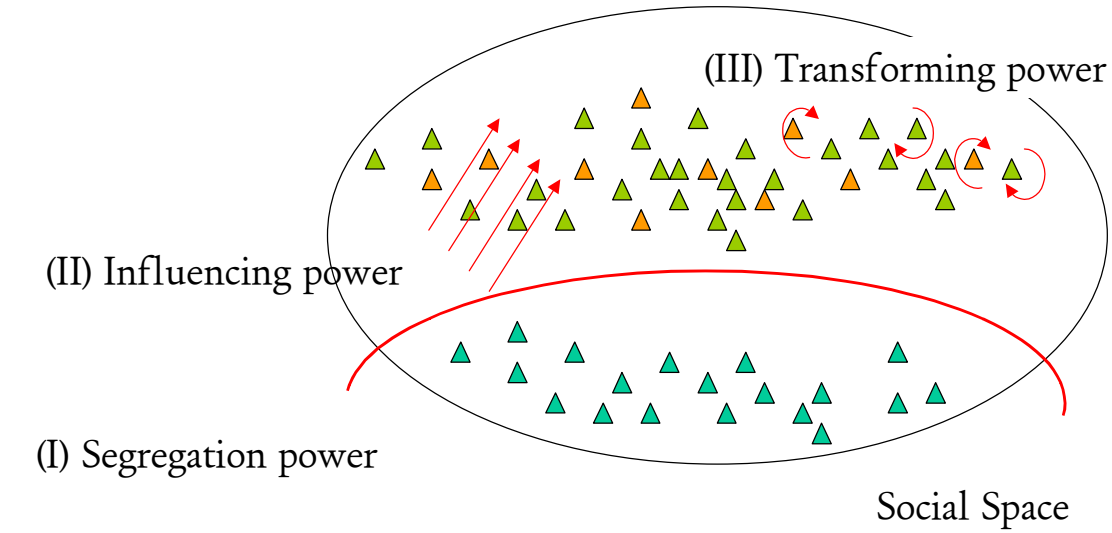
__ An including/excluding impact, defining the actors able to participate 'in the game' and the actors excluded in a fundamental way. This kind of impact would be 'segregation power' of a structure.

__A fostering/inhibiting power, which has its relative impact on all non-excluded social actors, while the importance of the impact relates to the 'momentum' –e.g. 'habitus' for individuals or 'organisational culture' for enterprises – of the social actors. This part of the impact would be 'influencing power'.

As a factor prevailing over a longer period, each structure may have an impact on the 'momentum' of the social actors, shaping their momentum over time. This impact is responsible for the 'historic' dimension of path dependency of the behaviour of the social actors. This part of the current impact would be 'transforming power'.

Diagram 4.1

Dimensions of the impact of social structures (represented by indicators)



When discussing the effect of any indicator for a feature of the social space, it seems necessary to discuss separately the three dimensions of a possible impact – the segregation power, the influencing power and the transforming power. We aim to show that the impact of a structure is clearly concentrated at one of the three dimensions.

In the following chapter, the indicators used are mainly understood in their segregation power. Setting aside their influence on the enterprises or individual participating in the game, we are most interested in their excluding effects. Any explanation on the differences between countries must address the crucial question of how many actors are 'in' and how many actors are 'out'. The proportion between

'included' and 'excluded' should have a crucial impact on the country's total training: If a significant part of the enterprises or individuals are definitely excluded from the possibility of training, all efforts for training the non-excluded part cannot make up the lost ground. In much of our explanation, we do not ask what factors influence the training behaviour of enterprises or individual (included in the game), but what factors cause exclusions and how many actors fall prey to this exclusion.

In the following section, we first discuss the influence of economic structures on the countries' average training figures. Then, we discuss also the option to use typologies of welfare systems and political developments to analyse differences in average training figures.

4.2 Differences in the economic structures – the view on the enterprises

The economies of the European Union's 27 member states in 2007 differ widely in many aspects and are equal only in that all are subject to perpetual transition and change processes of different types and intensities. To understand the differences in the countries' average enterprise training performance, one must be aware of the different probabilities of finding enterprises with features supporting or not-supporting the development of an expansive training culture. At the same time, economic structures also define the proportion of enterprises excluded from the possibility of providing training because their poor performance hardly allows any training offer for their employees, or because training would probably not make any difference since there are no possibilities for a better economic performance.**15**

15 For any work with CVTS data, one should notice that the proportion of a country's economic activity, the percentage of employees in enterprises covered by the survey varies widely between the 25 participating countries. We estimate, that CVTS II has covered between 37 % (Italy) and 57 % (Luxembourg) of the working population. Just as different levels of coverage should be noted, reasons for not including workers in the survey are important. In some countries, the sectors not covered have a major influence (e.g. agriculture in Rumania with 45 % of the workforce in 1999). In other countries, the non-coverage of micro enterprises and self-employed is of major importance (e.g. Italy, Greece, Portugal). When analysing the relationship between CVTS indicators and macro-economic indicators, results are influenced by these differences.

Overview 4.2

Indicators on the economic structure

Examples	Statistical correlation with training hours per Employee	Segregation power	Influencing power (on reactive training cultures)	Transforming power (from reactive to expansive)
Gross Domestic Product/employee	0.843 (**)**16** (1999)	expresses to a great extent the proportion between excluded and active enterprises	(not relevant)	expresses the probability of finding enterprises with an expansive training culture
Productivity per hour worked (relative to EU-15)	0.710(**)	similar to GDP		similar to GDP
Structure of Sectors	strong for a low number of sectors; inexistent for much sectors	proportion of employees in some sectors an indirect indicator for low wage/ productive production	-	Most sectors can be transformed to high productive sectors
Proportion of employees in small/large enterprises	comparatively weak	complex relation		complex relation
Proportion of knowledge intensive workplaces	0.771(**)	expresses the proportion between included/ excluded (similar to GDP)		expresses the probability to find enterprises with expansive training cultures
Indicators on the short-term economic development	comparative weak or inexistent	no relation	expected to influence a part of the training decisions	no impact

16 Without Luxembourg because Luxembourg is an extreme outlier; 0.667 including Luxembourg.

The indicator GDP per inhabitant can predict the relative position of a country's average figure for company training; especially for countries with a significantly weaker economy than the EU average. The new member states and the south European countries with a late conversion to democracy (Portugal, Spain, Greece) both fall behind the leading countries in economic strength and in the average training activity of their enterprises. We propose to interpret their comparatively low economic power as an expression of the proportion between productive, competitive enterprises and low-productive enterprises with a comparatively high risk of economic failure.

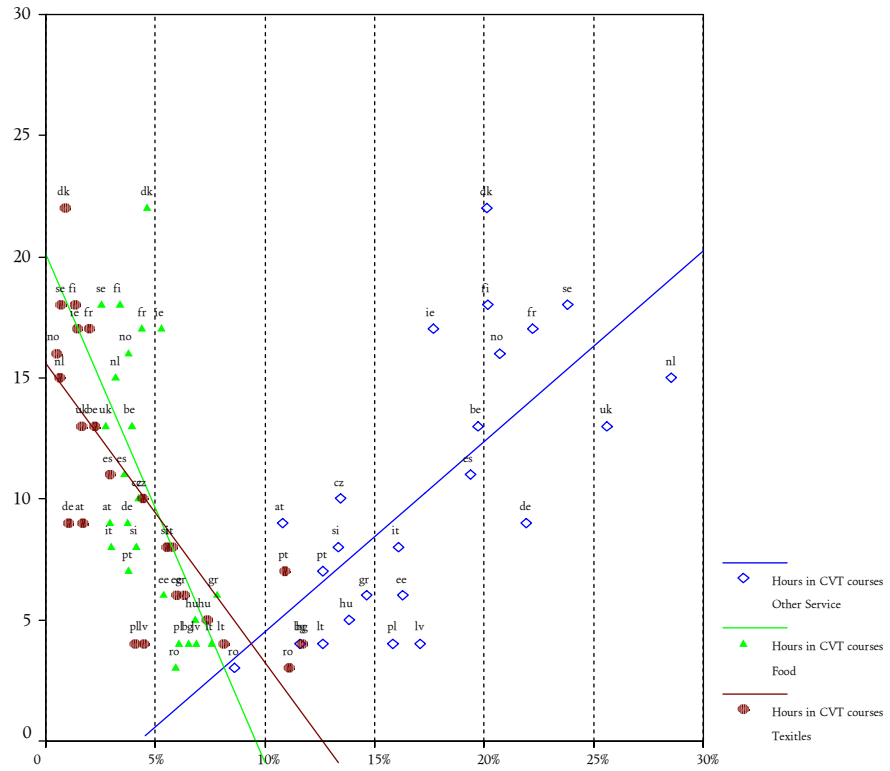
We expect that most of these comparatively poorly performing enterprises cannot invest in training for economic reasons. They may achieve partial economic success a low-cost, low-wage strategy that uses a cheap labour supply. They may not succeed but survive by exploiting their remaining resources. For the economically low performing countries, we interpret the indicator as the sign for the above average presence of a type of enterprises, for which – given its economic situation or strategy – training is not an option. For the countries with a comparatively powerful economy, we interpret the indicator as a sign of differences in the probability to find enterprises with reactive or expansive training cultures. At the same time, economic strength cannot predict training cultures; as countries with nearly identical economic power have significantly different average training activities.

Other indicators expressing economic strength as productivity or the proportion of employees working in knowledge intensive industries and services can be interpreted in the same way. They all express, on the one hand, the different proportion between enterprises excluded from using training and all other enterprises, where training is an option. On the other hand, they also indicate differences in the probability to find enterprises with expansive training cultures, as we expect to find such cultures mainly in enterprises with very favourable economic performance.

How do structure and size of sectors influence countries' average figures for training? Sectors are not comparable across countries, as they may consist of enterprises using a high-productive and high-capital or knowledge-intensive production techniques or enterprises relaying on low-productive, low-skilled, labour-intensive production. A high proportion of employees in a sector can signify a highly successful local industry with high productivity and competitive advantages; or, quite the opposite, a low productive sector with a comparatively small share of value added; but with a large, poorly paid workforce. Normally, periods of transformation can be observed, when industries first decline and reduce their workforce, but begin to grow in a second phase after again becoming globally competitive. Given the different states of development of countries' industries, the distribution of employees in sectors indicates comparatively little. At the same time, this helps to explain why the proportion of employees in some sectors has a good prognostic value for the average training activity. High proportion of employees in the 'textiles' and 'food & beverage' sectors will indicate low average training activities; a high proportion of employees in 'other service' accompany high averages in training. In all three cases, the correlation expresses the general level of competitiveness and development of the economy – not a particular relation of training in the mentioned sectors and the average training activity (see Diagram 4.1).

Diagram 4.1

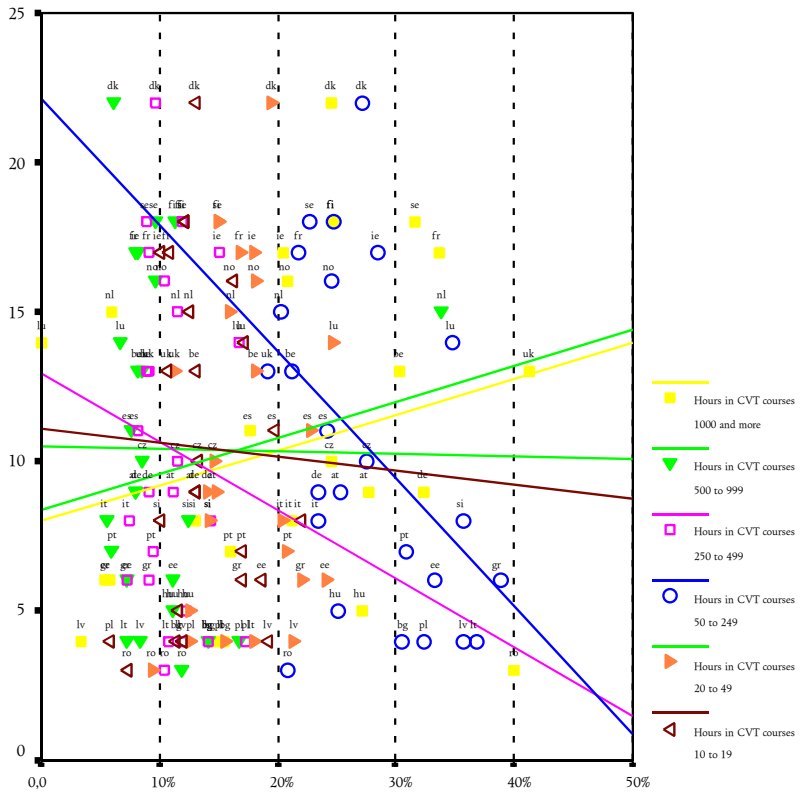
Correlation between hours of training (all enterprises) and proportion of employees in selected economic sectors (basis: all employees covered by CVTS).



The distribution of employers by size involves no prognostic value for the average training activity in a country. Countries with high proportions of employees in large enterprises have both high and low training averages. This is also true for countries with comparatively high proportions of employees in SMEs. Again, one cannot assume that the group of large enterprises is similarly composed throughout all countries – e.g. involving a comparable number of large banks and enterprises in the automotive or chemical industries. Large enterprises in countries can be dominated by enterprises with a low training performance, e.g. major chains in retail trade or less productive, older, heavy industries. A similar argument applies for the SMEs; at least in some countries, the SMEs include not mainly 'excluded' enterprises, but a fair proportion of enterprises with a reactive and an expansive training culture, so that average figures remain comparatively high. While in other countries, the small enterprises are excluded from the social space with a resultantly low average for training activities. (See Diagram 4.2).

Diagram 4.2

Correlation between hours of training (all enterprises) and proportion of employees in six size classes (basis: all employees covered by CVTS).



Given the importance of structural dimensions and the lasting quality of training cultures in enterprises, it is no surprise that indicators covering short-term economic developments (e.g. employment growth or GDP growth) tell little about the relative position of a country's average training activity. The impact that an upswing or a slowdown may have on the actual training performance cannot be expected to overrule immediately long-term social structures, which determine differences between countries. This becomes even more understandable when recalling the distinction between reactive and expansive training cultures. Enterprises with expansive training cultures can be expected to continue a substantial training activity even in comparatively difficult economic surroundings. Therefore, primarily enterprises with reactive training cultures respond to the economic crisis by limiting training volume.**17**

4.3 Differences in socio-political cultures in Europe and conclusions

Europe's common history both unites and differentiates societies. The long lasting societal structures experience, to the same extent, evolutionary and revolutionary transition. The social history of the eighteenth and nineteenth century – the source of many social institutions – continues to influence society. At the same time, revolutionary breaks after the Second World War[18] and the different countries varied accessions to EU membership resulted in different kinds and lengths of transformation. A broad branch of research works on new classification schemes, which should assist in the comparison of European societies.

Even though we are not able to address the topics in detail here, we emphasise the great importance of including the wider societal context in which enterprises and their training cultures are embedded. We stress especially the issue of which parts of the populations are definitely excluded from access to 'good jobs', 'learning conducive work environments' and 'training'. Belonging to the disadvantaged segment of the labour market (respectively not to the core staff of an enterprise) these groups are both results of enterprises' personnel and training policies and – assuming continuing exclusion – a challenge for more active training and HRD policies in enterprises.

The social policy, class structures and democratic culture shape an influential framework fostering or inhibiting the development of expansive training cultures. For an overview, we have divided the participating countries in seven groups; on the one hand, classifying welfare states, (for the old EU-15 members; Portugal, Spain and Greece have been identified as late democracy reform countries) and, on the other hand, the date of their change to a liberal, democratic capitalist economy.

Most of the groups are rather consistent, only the groups for the post-socialist societies are comparatively heterogeneous.[19] Another essential problem for grouping is the 'historic' reference year 1999. Given the clearly different impetus of political and economic change in the late transition countries, the situation in 2007 does not follow the situation a decade earlier. Therefore, any analysis of the CVTS III data needs a new country classification.

18 These changes included from National Socialism/Fascism in many countries in 1945, the breakdown of remaining Fascist regimes in the 1970s in Portugal, Spain and Greece, the democratic revolutions in the former East Block including East Germany after 1989, the ongoing reforms and struggles in the states of the former USSR, the splitting of the Balkan states after the Civil War in former Yugoslavia, the impact on countries societal structures coming from their joining to the European Union at different times.
19 This is true especially for the Baltic countries, which are clearly different from Bulgaria and Rumania. A detailed overview on the seven country groups is provided in (Hefler & Katscher, 2007 (June))

Overview 4.3

Grouping of countries according to their type of welfare state system and the time of their (final) change to a democratic and capitalistic order

	Group	System Change (after 1945)	Welfare System
1	Sweden, Finland, Denmark, Norway	democratic order before German occupation, 1945 (exception Sweden)	Social Democratic Welfare States
2	Belgium, Netherlands Luxembourg France	democratic order before German occupation, 1945	Social Democratic Welfare States/'Corporate' (conservative)' Welfare States
3	Great Britain, Ireland		Liberal Welfare States
4	Germany, Austria, Italy	(fascistic/nationalist Regimes before - 1945	'Corporate' (conservative)' Welfare States
5	Greece, Spain, Portugal	(fascistic regimes before and after 1945), democratic changes in 1974 (Greece), 1975 (Spain), 1974 (Portugal)	'Corporate' (conservative)' Welfare States
6	Czech Republic, Slovenia, Slovakia, Poland, Hungary	democratic traditions before 1945 (sometimes only short), fascistic regimes/occupation, socialist regimes up to 1989 (Slovenia 1991)	'Post-socialist' Welfare States
7	Bulgaria, Romania Estonia, Lithuania, Latvia	different traditions and states of autonomy before 1945; System change1989 - 1991	'Post-socialist' Welfare States 'Post-socialist' Welfare States

Diagram 4.3

Correlation of GDP per inhabitant in 1999 and average hours of training per employee (all enterprises) 1999 – Markers for seven groups of countries

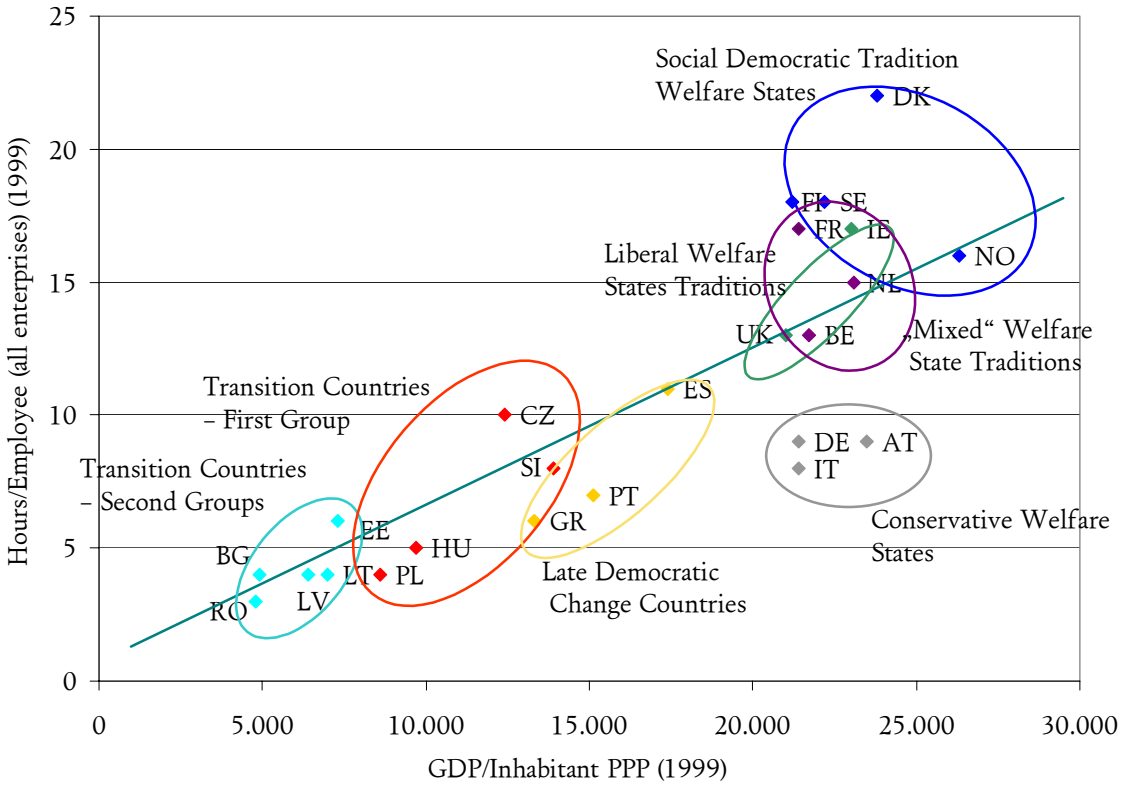


Diagram 4.3 shows that the seven country groups supports orientation. On the one hand, the groups follow the general connection between economic strength and average training performance. On the other hand, the grouping offers an orientation for the three country groups with a rather similar economic strength, showing that:

__ the social-democratic Scandinavian model clearly is associated with higher average training activity (as with training in general as already shown earlier);

__ the liberal welfare state model and the mixed welfare state model intersect in the middle field;

__ the conservative welfare state model falls clearly behind the training performance of the three other groups of economically strong countries.

In the next chapter, we return to a selected characteristics of the seven countries groups. We conclude this chapter by emphasising the following points:

__ Relative (compared to other countries) average training performance can be predicted by indicators focusing on the economic strength and for indicators focusing for the ‘variants of welfare capitalism’ and the duration of an ongoing process of democratic development.

- To understand the connection between economic strength and average training performance, we propose to interpret the strength as representing the relation between not excluded and 'excluded' enterprises, on the one hand, and for the not-excluded, the distribution between enterprises with a reactive and expansive training culture.
- Distribution of size of employers categories and sectors can be interpreted only in the context of a country's general economic states, as the features of enterprises included in the sectors and size categories may change significantly in the course of the economic development.

5 External movers in reactive and expansive training cultures – Investigating the interplay between the labour market, the education system and the lifelong learning system

5.1 Introduction

Research on important factors for training in enterprises regularly notes that factors not to be missed include the labour market, the education system and the network of lifelong learning institutions. As expected, these factors interact with the actual training *behaviour* and activities of enterprises. Significant changes in these three areas, consequently, have an impact on countries' average figures for company training.

Each of the three areas links to enterprise training in manifold ways. Research investigates a selected relationship and seeks to provide empirical evidence for the hypothesis chosen, e.g. the interrelationship of the labour market and training in enterprises or the relationship of the qualification structure of the workforce on the training activity of the enterprises. Hypothesis do not relate to an encompassing model, but mainly focus on a particular theoretical framework and its expectations, e.g. in the economics of education. In many cases, only data on the macro level are available, which involves additional problems.

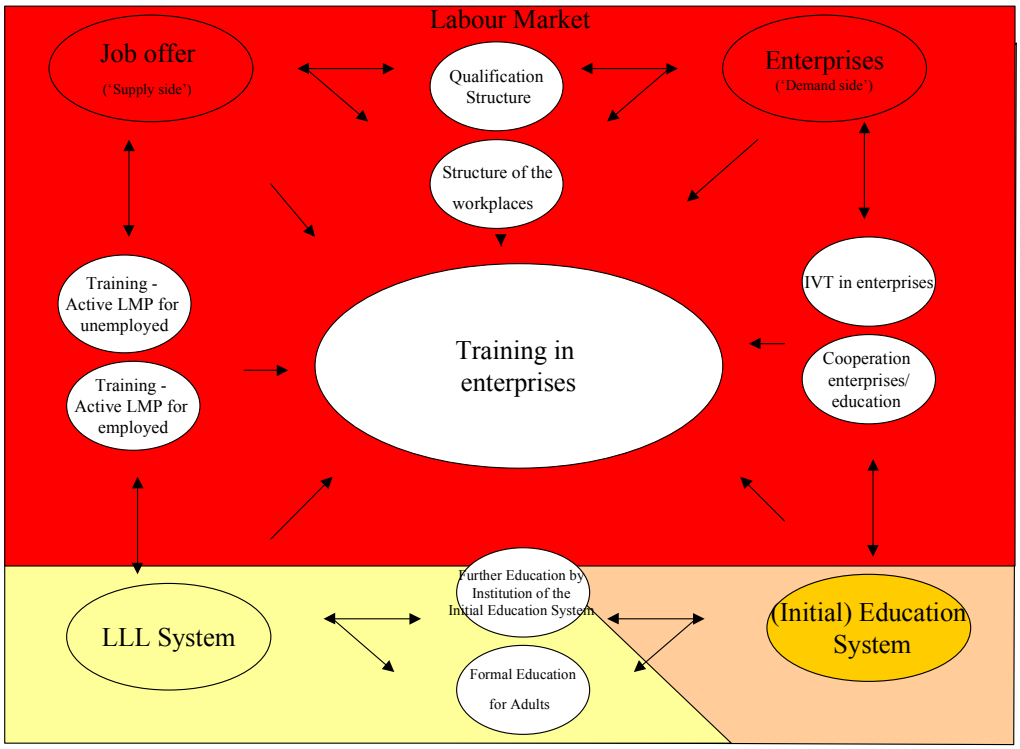
An even more significant challenge is involved in the task, not only to discuss the relationship between one area – or 'framework factor' as we have called it within the ongoing project (e.g. (Markowitsch & Hefler, 2005a) – and training, but the interrelation of areas with each other and the interrelation of these constellations and the training in enterprises. When discussing the connection between the three areas, systems or environments and training at the same time, it becomes clear that:

- The areas or system contain certain elements simultaneously. The 'training for unemployed' belong to the labour market and to the LLL system at the same time. The apprenticeship system belongs to the initial education system and to the labour market. Institutions of the education system may also play an important role in the provision of adult education.
- The framework conditions are not only related to training in enterprises, but also interrelated to each other. The framework factors are methodologically inspired representations of selected aspects of the very same social space. Identifying the different framework conditions includes not only the elements in the foreground (e.g. the number of training institutions, the provision of qualified labour), but also many properties of the social space.
- Constellation between framework conditions may determine the impact on training, so that a similar fact – e.g. the qualification structure – relates differently to training in different constellations.

Finally, enterprises' training policies and the range of strategic options to react on the same framework condition – e.g. shortage of skilled labour, public co-funding offers

for training – forms another challenge. Enterprises have more than one rational reason to react on particular features of their environments – therefore the diffusion of enterprises with different 'styles' or cultures must be considered, even when empirical information is scarce. Therefore, for this chapter, any assumption on the connection between a motivating factor and training in enterprises should be differentiated between enterprises with reactive or expansive training cultures.

Diagram 5.1
Map on selected interrelations between the labour market, the education system and the LLL system



Source: Authors' description

Moreover, the main challenge discussed in our approach becomes vital again. In this chapter, we are mainly interested in the interrelation between isolated characteristics of the environment and the training activity of enterprises, or, more precise, on the hypothesis of the correspondence between changes in these characteristics and changes in the training activity of enterprises. Characteristics of the environment are, per definition, factors on a macro level – not on the level of the individual enterprises – and therefore represented by indicators measuring on the macro level. At the same time, we are interested only in the interplay of these particular characteristics and the enterprises' training behaviour on a micro level. To state it as a question: How may enterprises change their training behaviour when a particular system characteristic, represented by the indicator, undergoes defined changes?

We discuss the problems through one example. How does an increase or decrease of the unemployment rate influence the training decisions of enterprises? And, as a

corollary: How do different levels of unemployment in European countries influence the average training performance because of *different behaviour* in enterprises?

Unemployment levels can indicate a broad range of conditions in the enterprises and consequently affect training. Temporarily higher employment can indicate an upswing phase in a business cycle. Enterprises may have training policies of a pro or counter-cyclical nature. Data for individual enterprises in 12 European states (1997–2001), (Bassanini, Booth, Brunello, De Paola, & Leuven, 2005): 62f) revealed a counter-cyclical relationship between unemployment rates – interpreted as indicators for the current position in the business cycle – and participation rates in enterprise training. For each percentage point of unemployment, enterprise sponsored training is expected to increase by six per cent. The finding comes as a surprise because most research literature (as presented in the introductory section) suggests a pro-cycle training policy should be expected.[20] One reason for this counter-cyclic training policy could be the lower opportunity costs for training during limited production. Unemployment rates can also indicate the expected difficulties in attracting and retaining employees. Lower unemployment rates restrict the leeway for employers and require more active approaches such as training. Higher unemployment rates may reduce possibilities for employees so that enterprises adopt a less active role in attracting and retaining their staff.

For the purpose of demonstration, we restrict ourselves to one hypothesis. We expect a growing need for training when unemployment rates fall below a defined value, say 3.5 per cent (according to Labour Force Concept). The reason could be increasing difficulties to fill vacancies with appropriate job seekers on the labour market. The fewer people seeking employment, the more likely an employer must accept a larger mismatch between available competences and job requirements.

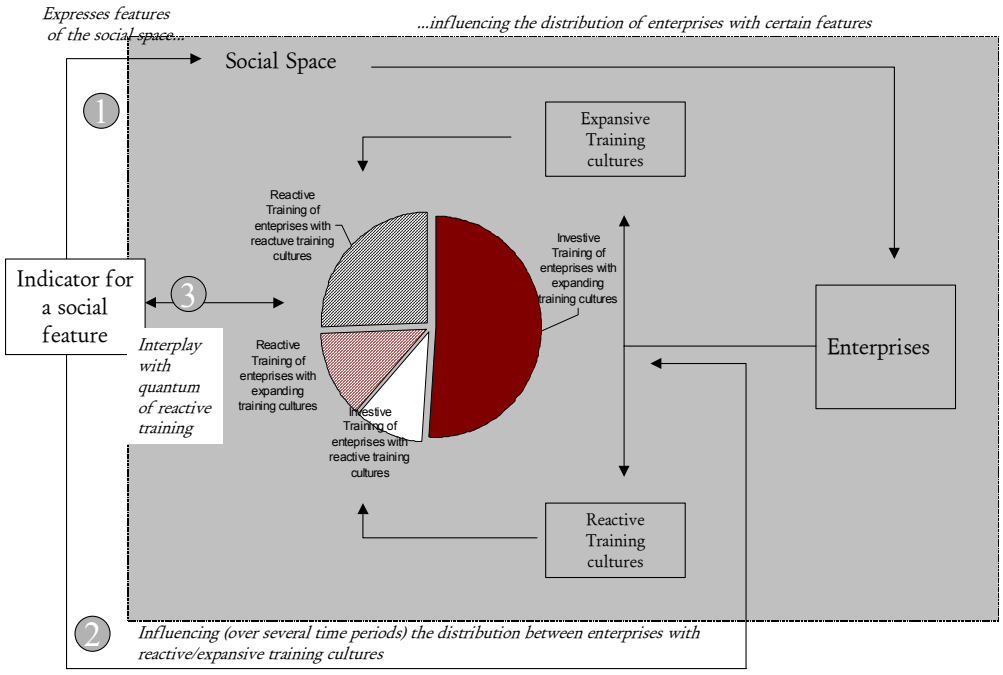
Estimates may help clarify the impact of the difference in training needs when labour supply varies. We may assume – to continue the example – that on average, enterprises must face additional training needs of about five training days (40 hours) for every newly hired employee in case of an unemployment rate of 3.5 per cent. Given a job retention of 90 per cent or 10 per 100 newly hired employees do not stay at least a year, this would make an additional, annual training need of 40 hours per 100 new employees, respectively 0.4 hours per employee. These additional training need of 0.4 hours a year per employee may be regarded as the direct consequence on training needs, when the unemployment rate passes from 4 per cent to 3.5 per cent and the resultant changes on the available job seekers. We would expect that the mismatch increases when unemployment rate falls to 3.0 per cent. Now, in three out of 10 cases, additional training may be necessary, leading – applying the same consideration as before – to an estimate for 1.2 hours per employee and year. For any unemployment rate above 4 per cent, we would expect no change in training needs (respectively, we would not ascribe the still existing proportion of mismatch to the general unemployment level, but to other factors as structural mismatch, shortcomings of the education system etc.).

[20] One of the main arguments was that enterprises might face restriction to finance training investments by private credit, because training investment represents no hard items as do tools and machines that can be physically repossessed.Training investments must be financed out of the current earnings, (Brunnello ..., 61)

We cannot go into any further details of this example here.[21] We would like to emphasise only that for discussion on the impact of unemployment on enterprises' training decisions, we need an estimation matrix, clearly defining the expected impact on training from changes in the labour market. For further examination, we would need to develop a study design devoted to this particular hypothesis, measuring the immediate reaction of enterprises (e.g. how many hours of training are provided for new entrants in their first three years and how this corresponds to the labour market when they were recruited). We cannot expect identical structures in the different countries; thus, the same change in the unemployment level in different countries would not lead to identical changes in the expected training activity.[22] Results may be influenced by other tendencies running in the same or in the opposite direction (e.g. a counter-cyclical training policy of enterprises as argued previously).

21 A non-linear relation between unemployment and additional training needs to overcome an increasing mismatch. Any detailed table of estimates for different additional training hours for different levels of unemployment must be the subject of empirical experiments of different kinds and should be based on longitudinal data. For international comparison, the different composition of the unemployed must also be distinguished between persistent long-term unemployment, on the one hand, and temporary withdrawal of people interested in work, on the other hand.
22 (Bassanini et al., 2005): 112) also points out, that institutions shaping the labour market (e.g. unions, school system, product market regulation) may have quite a different impact in different country settings, which cannot be identified on the basis of available data 'because of the impossibility to control for the full set of confounding country-specific effects.'

Diagram 5.1
Three levels of relationships between indicators representing economic environment and indicators representing average training activity of enterprises



Comparing unemployment rates and the level of training activity in different countries fails to support our reasoning. Diagram 5.1 sums up once again, why this is the case. Actually, we are interested in the interplay between the conditions on the labour market, represented by the unemployment rate, and the training volume directly connected to these conditions (relationship marked with 3 in diagram). We must consider the total number of training hours. Only a small part of the training volume can be ascribed to differences in the unemployment rate. A multivariate analysis may partially decipher the relative weight of the labour market situation compared to other environmental characteristics. Again, only the training regarded as a reaction to present needs can be analysed in this way. For the training responding to stated needs and seen as an investment, crucially important is discerning the proportion between enterprises with different training cultures not connected directly to any framework factor.

At the same time, macro-economic indicators – such as the unemployment rate – express simultaneously many different aspects of the social space that may be connected to enterprises with specific features relevant for training (e.g. medium scale, high productive, high tech enterprises versus large scale, low productive enterprises with a low skilled workforce). High unemployment rates can express significant ongoing changes in the economic structure as well as a sharp economic decline; neither are directly connected to enterprises' training decisions, but to the

structure of the economy and budgetary restrictions. However, indicators represent influences on enterprises' training cultures and have an impact on how quickly enterprises change from a reactive to an expansive training culture. Longer periods of low unemployment may motivate enterprises to set up training programs and thus become more independent from the supply of skilled labour. Because the development of these kinds of schemes is mainly a long-term investment and clearly strategically oriented, it forms not only a part of an expansive training culture, but likely will stay unchanged in periods of increasing unemployment – at least for a certain period.

Any correlation between an indicator representing a framework condition and the explained variable involves the problem of insufficient available information for deciding which connection between the indicator and the explained value shapes the relationship. The correlation of 0.6 between the unemployment rate and the training hours cannot be taken as proof for the impact of the labour market on the average training activity. Moreover, the presented schema indicates that the interaction between single features in the environment ('framework-factors') and training in enterprises may be overestimated. Without reliable information on the reasons enterprises train, their training cultures and the differences in the international distribution of enterprises with various characteristics, the belief in the impact of framework conditions may have become something as the last attempt to explain something we do not yet know.

Overview 5.1

Relationship between selected indicators on the labour market, the education system and training in enterprises (hours per employee)

Examples	Statistical correlation with training hours/ employee	Part of the correlation not related to the enterprise level – expressing structural differences	Influencing Power on reactive training cultures	Transforming power (from reactive to expansive)
Education System				
Expenditure in education - current prices 1999 per employee (under the condition that differences in input represents satisfactory differences in output)	0.863	Very high – expresses economic strength/ structure	little direct influence; reduce need for given tasks, but increase the number of more demanding jobs	better basis for transformation; employee driven transformation
Variation in student performance between countries on the mathematical literacy scale (Mean)	0.662	Very high; expresses mainly the relation between training and the absence of strong social exclusion	some direct influence; e.g. lower number of employees with poor abilities to become trained; segregation between groups of employees less rigid	better basis for transformation;
Labour Market				
Unemployment rate (1999)	-0.417	very high – expresses mainly the relationship between general economic structure and level of social exclusion	higher training needs for new entrants in case of shortage on the labour market	constant difficulties to attract qualified labour is in favour of transition
Active Labour Market Policy expenditure as per cent of the GDP	0.662	very high – expresses mainly the type of welfare state regime	-	-
Passive Labour Market Policy – expenditure as per cent of the GDP	0.631	very high – expresses mainly the type of welfare state regime	-	-

What is true for the unemployment rate is true for all single features in the environment of enterprises ('framework factors'). We cannot overcome the challenge of missing information; with further examples, we discuss what a successful investigation of the impact of framework factors on enterprise training may look like.

In the following chapter, we address the challenge of an integrated picture of what we call 'framework factors'. Instead of consecutively discussing the impact of the labour market, the education system and the LLL system, we sketch the interrelation between these three areas. Having addressed the complexity of this interrelation, we discuss the example of public co-funding for training and the necessity to also consider enterprises' training cultures when studying the interrelation between training and framework factors. As a second example, we look at the structure of the training market for an area where significant change would be necessary to increase enterprises' training activities.

5.2 Addressing constellations of the 'education system', the 'labour market', the LLL-system and training in enterprise

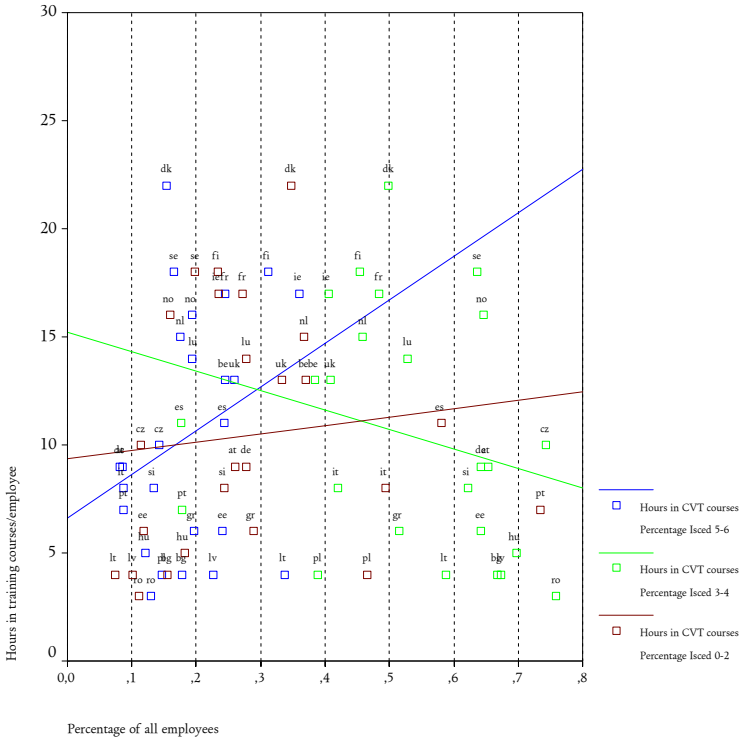
When discussing how a feature in the enterprise's environment (a 'framework factor') may have an impact on training activity in enterprises, any relationship can be expressed only by referring to other factors in the social space. Any hypothesis that a factor is related to training, simultaneously considers conditions in the other fields. We will demonstrate this by discussing the relationship between the workforce's qualification structure and training in enterprises.

On the level of individual employees, sufficient evidence indicates that when jobs require higher formal qualifications, employees receive more continuing education and training.**23** (Bassanini et al., 2005)72, f) find in their regression models based on individual data for 12 countries (1997-2001), clear effects of worker qualification on inclusion in employer sponsored training. However, within their model, effects of country characteristics on the probability of participation in training are much stronger than effects of qualification level and, even more important, effects are clearly different in strength (and sometimes even in direction) in the 12 country models (ibid: 75 and 91f). Thus, the question becomes even more complicated when discussing the relationship between qualification structures of the workforce in the countries and the average training activity (see Diagram 5.2). Is it possible to estimate the effect of a better qualified workforce on the average training activity?

23 This fact is unanimously accepted, but the reasons behind this phenomenon are discussed fiercely. While differences in motivation between high and low skilled workers are discussed, a broad range of research asks whether employees holding different qualifications seek different opportunity structures and results.

Diagram 5.2

Correlation of percentage of workforce classified ISCED 0-2, ISCED 3-4 and ISCED 5-6 and average hours of training per employee (all enterprises) 1999



Correlation are rather weak, no group of employees can be classified according to ISCED. This is true not only because shortcomings of the international classification fail to allow comparisons between different traditions of education systems. Overview 5.2 reflects more carefully on the complexity of the relationship between the qualification structure and its connection to enterprise training.

When discussing the relationship between qualification structure and training in enterprises, several aspects must be considered. Enterprises may offer training differently to different groups of employees; but, at the same time, employees themselves play a significant role in asking for training, accepting training offers and contributing to the success of training initiatives. The individual side must be considered from the beginning (Level I in the Matrix). Influences must be considered from two perspectives. Higher qualification can be seen as a positive re-enforcement, so that better qualified employees are more likely to attend to training – in enterprises and in general – than employees holding a lower degree. At the same time, limitations for employees with low qualification must be considered; they may face general discrimination in having access to training. Employees holding low degrees may not only miss the positive re-enforcement, they may be subject to structures excluding them from training. The overall effect of qualification results from the positive re-

enforcing effects of higher qualification and the presence or absence of exclusionary forces (Level II in the Matrix).

The interplay of qualification structure and training is determined not only by one factor but by a bundle of different factors that often simultaneously address the qualification levels. Different qualification levels go with different assumptions concerning:

- Available resources for training. Better qualified employees are expected to have more income. Enterprises with a higher qualified workforce are expected to be more productive and profitable. Therefore, funding training should be easier and restrictions in training funds more likely to be absent.
- Prevailing attitudes and labelling practices. Qualification levels should indicate different attitudes towards training and expected results of training activities. A main factor may become the presence or absence of a strong prejudice towards training performance of lower qualified workers.
- Connection of qualification and occupation: In most cases, there should be a match between available qualification and demands of the occupation or the workplace. However, this fit between qualification and occupation can vary greatly. In countries with serious delays in expanding their education system, employees with low initial qualification may hold comparatively demanding positions. The problem of over-education may appear differently in different countries and times. The match between occupation and qualification clearly differs between the participating countries of the CVTS survey – this brings us back to the point that provision of training depends not on the workforce's qualification structure but features of the workplaces offered by the enterprises.
- Expectations of career mobility and job enlargement: Better qualified employees may be more aware of their career opportunities and their employers more prepared to allow for career development. However, predefined organisation structures may restrict the developmental options for most employees and eliminate any support mechanism; thus, employees dissatisfied with their dead-end situation must think about leaving the enterprise.
- Transformation of increased performance in increased income/increased revenues: Better qualified workers expect not only to improve their performance through training, but also to benefit from these improvements with higher wages and better job security. At the same time, enterprises expect to convert better performance in increased profit, which can be divided between the employees and other stakeholders of the company.

By sketching the matrix, we would like to emphasise that any expectation on a connection of 'qualification structure' and 'training activity' already applies a set of assumptions. For each assumption, empirical research may give very different answers in the European countries examined. Even more important, the connection between qualification and training on a country level may be defined by the constellation between all the factors, not only by different values of singles cells of the matrix.

In countries with comparatively low proportion of low qualified employees, they may be restricted to jobs of poor quality and to dead-end pathways (and stay excluded from company training) or they can be supported by a bundle of support mechanisms,

including training offered by their employers. In the first case, their exclusion affects significantly the average training figures.

Over-education is a main feature on European labour market, even when the prominence of the topic changes over the years. A lack of synchronisation of the development of the education system and the employment system leads to longer and more difficult transition periods for graduates on the labour market. Significant numbers of highly qualified and specialized employees are made redundant by waves of restructuring and business re-engineering of industries and structural changes. Some of the dismissed accept less demanding jobs before they become reintegrated in positions connected to their qualification level.

Enterprises' ability to use training to improve performance and increased profits depends on their organizational culture and their position on domestic and international markets. This closely relates to organizational learning and therefore to the developed training culture. In addition, this connects to the general economic strength of a local economy and the existing development pathways. Whether the qualification structure is a good indicator for training investment, again depends on the economic structure and development of a country. It cannot be analysed as an isolated feature of the enterprises' environment.

Overview 5.2

Selected consideration on the relation between the education structure of the workforce and training in enterprises

Level I	Level II	Level III Available resources	Attitudes and labelling	Interrelation of Initial Education and occupational careers	Anticipated (Upwards) career Mobility	Social (income) upwards mobility
Individual	Positive Enforcement	Higher income (of better qualified) allow more training activities	Higher self-esteem in educational endeavours Higher esteem for education	Higher educational attainment is connected with more demanding workplaces (higher occupational rank)	Better the qualification bases results in higher individual expectations to reach higher ranks	Higher income is expected for better performance/ for taking steps within the career
	Absence of Restrictions	Income is not too low to pay for training/training for no/low fees is available (by the employer, the community...)	Absence of dissatisfaction and symbolic exclusion	Absence of over-education Absence of strong segmentation/ discrimination according to education	Absence of strong segmentations and dead end careers	No disconnection between performance/ payment; career steps/ performance for groups of employees
Enterprise	Positive Enforcement	Good performing enterprises are less restricted in their investments	Higher expectations of results for better qualified	For more demanding jobs, higher qualification *and* more training offers to support the development of specific competences are necessary	Higher average qualification is connected with broader offers for occupational careers	Offering performance related increases of wages; broad options for career pathways (management, expert careers)
	Absence of Restrictions	Absence of shortcoming of resources	Absence of expected restrictions to participate in training successfully for groups of employees	Absence of restrictions in the work organisation limiting the productive use additional skills and competences	Absence of rigid work organisation, fixing a proportion between low and high qualified workforce	Absence of limitations to convert increased performance in increasing revenues

We cannot discuss the details of the different elements defining the constellation linking countries and qualification and training in enterprises. We would like to discuss only the correspondence of qualification levels and occupation as one core element in the constellation (see Overview 5.3). We briefly discuss three groups of countries.

In the Scandinavian countries, average educational attainment would not indicate an outstandingly high training activity. Other factors clearly dominate the scene, as indicated by the PISA survey, the educational system's high level of inclusion, provides everyone a comparatively good educational base.

In liberal welfare states, a comparatively high proportion of low qualified employees is combined with a comparatively high proportion of highly qualified employees. Here, the number of employed on the ISECE 0-2 level is much higher than the number of people working in a comparatively low occupational position (ISCO 1–3). This means that the lack of formal qualification is counterbalanced within the employment system and more jobs with higher demands are offered.

A completely different situation exists in the post-socialist countries such as Rumania, Bulgaria and the Baltic states. Here, the proportion of employed with low educational attainment is very low and the number of employed with qualifications labelled at ISCED 5–6 is very high. These comparatively high levels of available qualification is obviously not used within the labour market. The number of persons employed in occupations labelled on ISCO 7–9 is several times higher then the number of people holding qualifications up to the ISCED 2 level. Here, the qualification level fails to predict the distribution of occupations present in the labour market. Consequently, the training hours in enterprises reflects more the distribution of occupations – or workplaces with different requirements – than the available qualification of the workforce.

Even this rather short analysis reveals that any study of the impact of educational attainment on training in enterprises must consider this constellation.

Overview 5.3

Background data on the relation between qualification and training in enterprises

Group/Countries	social democratic countries	'mixed' countries	liberal countries	conservative countries	late change to democracy countries	post-socialist countries – Group 1	post-socialist countries – Group 2
	Sweden, Finland, Denmark, Norway	Belgium, Netherlands Luxembourg France	Great Britain, Ireland	Germany, Austria, Italy	Greece, Spain, Portugal	Czech Republic, Slovenia, Poland, Hungary	Bulgaria, Romania Estonia, Lithuania, Latvia
Position according to hours in CVTS courses per employee	3,2,1,6	9,7,8,4	10,5	13,14,15	19,11,17	12,16,23,20	26,25,18,22,21
Value scale (hours in CVTS courses per employee)	16-22	13-17	13-17	8-9	6-11	4-10	3-6
Proportion employed ISCED 0-2	Medium	High	High	Medium	High	Low	Low
proportion of employed ISCED 5-6	Medium	High	High	Low	High (exception: Pt)	Low	High
Matching between Qualification and Occupation (ISCO) – low position (7,8,9) with ISCED 0-2	Higher proportion of ISCO 7-9 than ISCED 0-2	Higher proportion of ISCO 7-9 than ISCED 0-2	Lower (1)proportion of ISCO 7-9 than ISCED 0-2	Higher proportion of ISCO 7-9 than ISCED 0-2	Lower (1)proportion of ISCO 7-9 than ISCED 0-2	Higher proportion of ISCO 7-9 than ISCED 0-2	Higher proportion of ISCO 7-9 than ISCED 0-2
	Medium	Medium (exception Netherlands lightly less ISCO 7-9 than expected):	High	Medium (exception Italy: slightly less ISCO 7-9 than expected)	High	Low (exception: Poland)	Very low
Matching between Qualification and Occupation (ISCO) – low position (1,2.3) with ISCED 5-6;	Higher proportion of ISCO 1-3 than ISCED 5-6	Higher proportion of ISCO 1-3 than ISCED 5-6	Higher proportion of ISCO 1-3 than ISCED 5-6	Higher proportion of ISCO 1-3 than ISCED 5-6	Higher proportion of ISCO 1-3 than ISCED 5-6	Higher proportion of ISCO 1-3 than ISCED 5-6	Higher proportion of ISCO 1-3 than ISCED 5-6
	Medium	Medium (except: Nederland: Low	Medium	Heterogeneous (Germany low, Austria medium, Italy high)	Medium	Low	Medium
Engagement of enterprise in CVT	Very high	High	High	Low	Low	Low	Very Low

5.3 The impact of countries' lifelong learning systems

Among the various features in the enterprises' environment, we identify the countries' lifelong learning systems as making the strongest impact on enterprise training.

We define the LLL system as a set of regulations, institutions and markets, which provides organized learning opportunities for adults and simultaneously contributes to the attitudes towards and motivation for learning. (We exclude from our definition the initial education system). Training in enterprises is both an important part of the lifelong learning system and, as an element of the system, highly influenced by the constitutive elements of the LLL system, notably, by the attitudes and motivations – i.e. the culture – the LLL system produces in the general population.

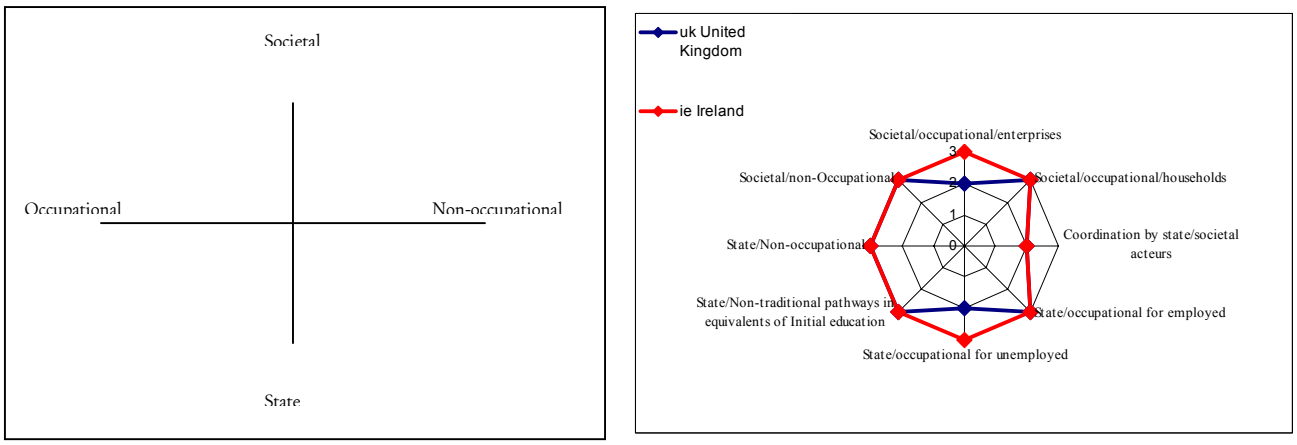
Scholars unanimously that important differences exist between the LLL systems in European countries is unanimously accepted. However, in comparative research, a well-accepted and sound concept to define countries LLL system is still missing. Existing approaches try to combine qualitative stylisations and quantitative proxies (e.g. (OECD, 2007). We propose here another way to come to country characteristics.

We describe countries using a scheme with two main axis (see Diagram 5.2),

- First, the division between learning activities connected to occupation and the development of professional competencies on the on hand and learning activities connected to all other parts of social life as citizenship, health and tasks involved in the life cycle (e.g. parenting), religion and leisure activities (e.g. sports, playing a musical instrument) on the other hand.
- Second, the division between the sphere of state's influence and responsibility traditionally connected to the use of public means to run all kinds of activities, and the societal sphere, comprising the activity of individuals, their non-government institutions of all kind, including employer organizations, trade unions and churches.

Diagram 5.2

Dimensions of countries LLL system – The example of United Kingdom and Ireland



We can describe any LLL system by studying the involvement of the governmental and non-governmental actors (including individuals or enterprises) in the two main dimensions of occupational and non-occupational.

We expect the strongest impact on motivation and attitudes in systems, where the state and the societal actors are strongly involved in LLL and complement each other in the fields of lifelong learning, vocational oriented schooling and general education.

Diagram 5.2 demonstrates the idea of the scheme for Great Britain and Ireland. Beside the four main dimensions – Societal/Occupational; Societal/Non-occupational; State/Occupational; State/Non-Occupational – we have differentiated the activity of the state by two more dimensions (offers of training for unemployed and engagement in opening and adjusting the initial vocational system for participants at any time of their career, leading to higher participation in formal education). We divide the dimension Societal/Occupational into an enterprise and a household component. Finally, we add one dimension for coordinating the activities within the LLL system that includes topics such as establishing a qualification framework, permeability of pathways and acknowledgement of prior learning.

We use a three-point-scale for each dimension, starting with 1 'weakly developed', 2 'significantly developed', 3 'strongly developed.' For the ranking, we use partially quantitative, partially qualitative indicators. In general, we try to compare the countries to each other, so normally 3 means also – very strong as compared to the other countries. Overview 5.4 shows, how we have managed the classification.

Form a fully developed LLL system, we expect the development of a culture in favour of lifelong learning based

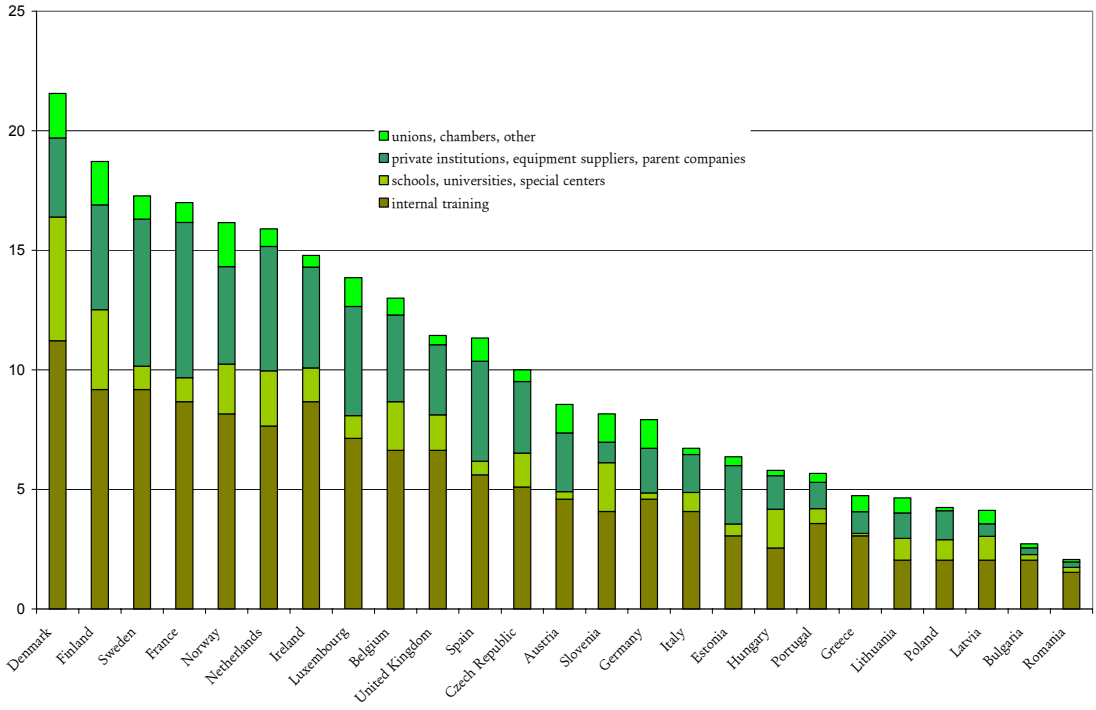
- on a widespread experience of participation in well-adjusted learning activities, meeting the needs of the participants and supporting their individual goals;
- on a positive attitude towards LLL, co-evolving with the visibility of public and societal acknowledgement.

We also expect that the dimensions outlined previously apply to fundamental aspects of the LLL system, so that strength in one dimension provides little help to overcome restrictions in another dimension. For example, strong state involvement in training for unemployed may not compensate for a public disengagement in providing learning opportunities for the employed.

Diagram 5.3 supports another example for this argument that shortcomings in one dimension cannot be counterbalanced easily in other dimensions. For-profit enterprises will probably not completely replace the training services of non-profit organisations such as public schools, universities, specialized training institutions or trade unions. Their markets only overlap only partly and not all training offers important for enterprises can be easily offered by for-profit training institutions. For-profit enterprises develop training products according to the logic of expected turnover and available profit rates. This clearly leads to other training offers than that offered by non-profit organisations. The Danish or Finnish non-profit organisations provide more training hours than all training providers in countries of comparable size

as Austria or the Czech Republic. A stronger development of non-profit providers, normally based on support by public funds, would therefore be a prerequisite for any expansion in training activities in countries with below-average training. The public LLL policy clearly supports the institutional framework of training provision.

Diagram 5.3
Number of hours of company training (per employee/all enterprises) for different groups of training providers – (CVTS Results)



More qualitative aspects may also be important. In a not fully developed LLL system, its obligatory and corrective character for unemployed may shadow their participation, so that their experience does not increase self-esteem and desire for further education. Furthermore, for each dimension, different reasons can become crucial for not exceeding an elementary level. For the Societal/Non-occupational dimensions and Societal/Occupational/Households dimensions, the average income and structure of the household budgets may be significant. In some countries, households excluded from participation for financial reasons may be limited, in other countries the opposite is likely to be the case.

Overview 5.4

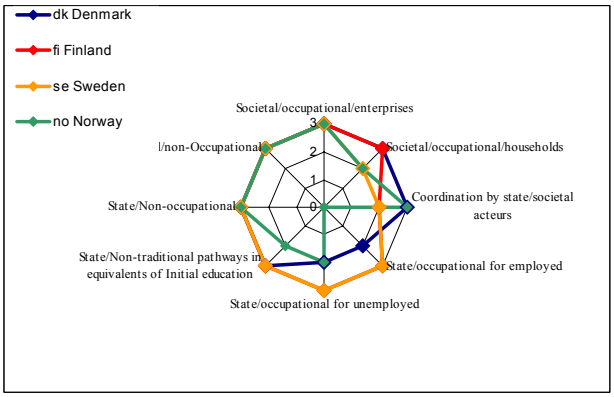
Use of indicators for sketching the dimensions of the LLL system

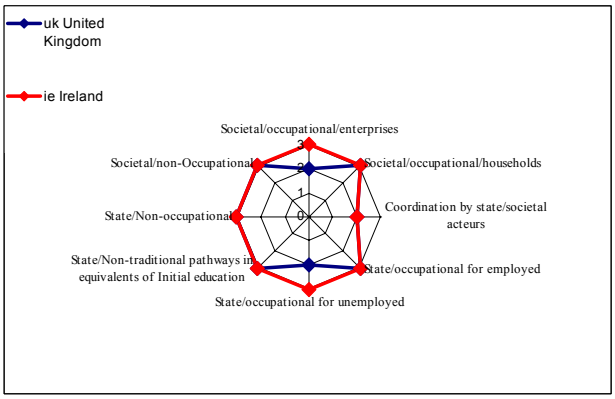
	Conceptualisation
Societal/Occupational: *enterprises*	CVTS results: (1) 10 hours and below; (2) 11-15 hours (3) 16 hours and above
Societal/Occupational: *households*	Participation in LLL (15-64) – main reason is not related to the occupation (LLL 2003); (1) below 1.5 per cent of the population; (2) 1.5-3.0 per cent (3), more then 3 per cent participates
Coordination by/of state/societal actors	Countries where a Qualification framework is partly/fully established, a system of accreditation of prior learning is established and unified qualification exists (3 point per positive answer, divided by three)
State/Occupational: *support for employed*	CVTS results – co-funding for enterprises (1) up to 10 PPP per employee; (2) 11 to below 30 PPP (3) 30 PPP an more per employee
State/Occupational: *support for unemployed*	PPP for active labour market policy (training only) for unemployed – (1) up to 500 PPP, (2) more than 500, less then 1500 PPP, (3) more than 1500
State/occupational or general: *Non-traditional pathways in equivalents of initial education*	LLL2003; participation in formal education 25-64; (1) 0-3 %; (2) more than 3, below 6 per cent, (3) more then 6 per cent
State/non-occupational: *Support for General Adult Education*	Qualitative Assessment by the authors
Private/Non-occupational: *General Adult Education*	Participation in training for mainly not job-related reasons (1) up to 1.5 per cent (2), more then 1.5 per cent to 3.0 per cent (3) more than 3 per cent

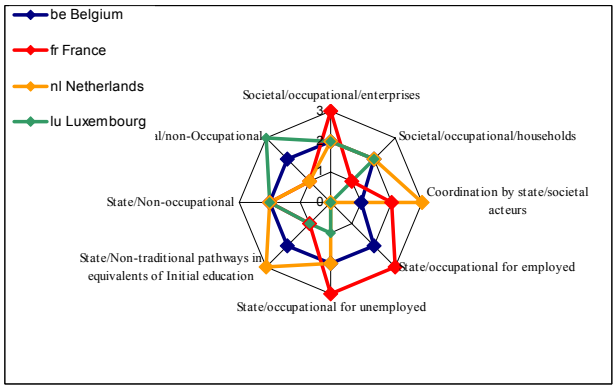
For a preliminary stylisation of the system in seven country groups (see Chapter 4.3), we use qualitative and quantitative indicators as described in Overview 5.4. We only intend to demonstrate the usefulness of an approach that describes the involvement in LLL as a comprehensive features of societies and emphasises the importance of societies developing a culture of LLL that explores the relationship between single indicators for these cultures (e.g. participation in non-formal education outside the working hours) and other aspects of the same culture (e.g. training in enterprises). We must restrict ourselves to a quick outline of the approach and leave the main challenges – including a theoretical foundation for defining a fully developed LLL system and the expected values for its dimensions – for further work. In addition, restriction in available indicators allows only a tentative interpretation.

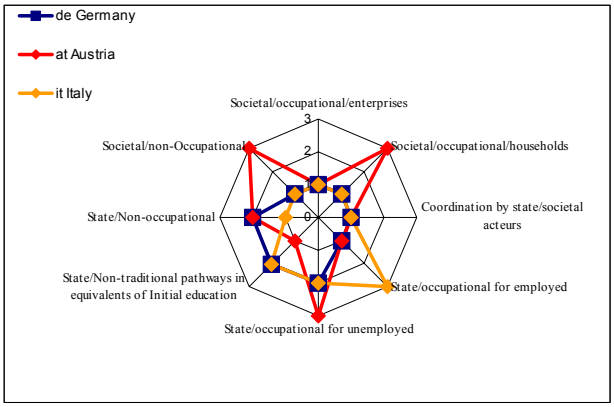
Diagram 5.4

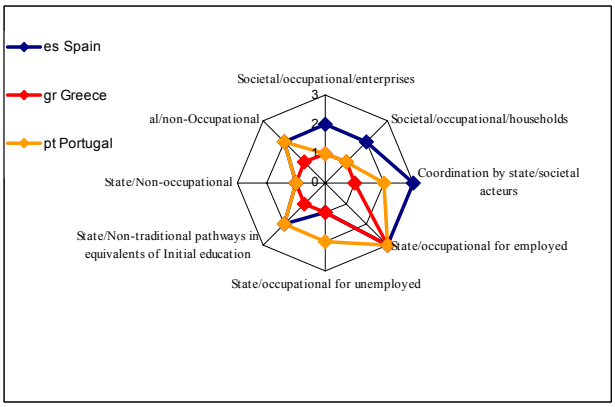
Dimensions of countries LLL system – Overview

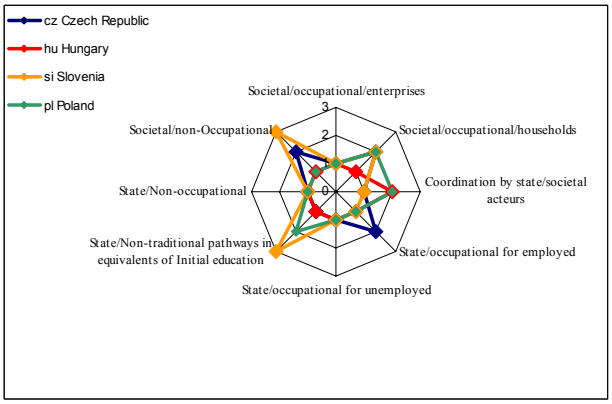


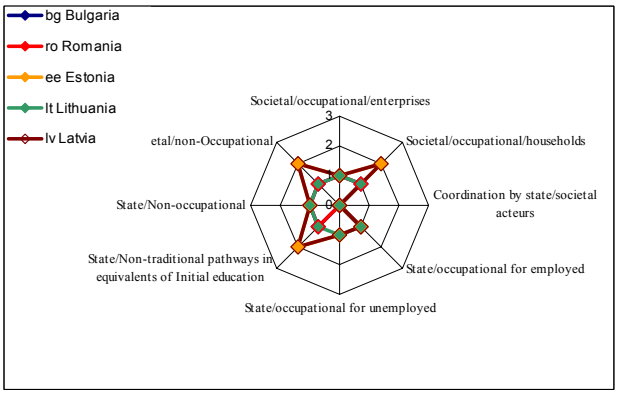












We interpret these representations of the LLL system in the seven country groups and their relations to training in companies in the following:

- In the country group with high average activity rates in company training (Scandinavian countries, liberal welfare state countries), all dimensions of the LLL system are well or very well developed. Therefore, the training policies of enterprises seem clearly to reflect the general esteem for LLL in these countries' cultures. Differences between the two country groups may exist primarily in equity dimensions and the fundamental ideologies gearing the development of the LLL system. Nevertheless, both groups can be expected to have clearly better developed LLL system than the five other groups.
- The 'mixed system' group is still characterized by comparatively well-developed system characteristics. For example, France has an outstanding co-funding approach for training in enterprises.**24** At the same time, formal education for non-traditional students seems to be clearly underdeveloped. All together, the system characteristics may be in favour for company training but do not reflect a strong basis for LLL in the country cultures on the level of the first two groups.
- The 'conservative welfare state' group and the group of late democratic transition countries are characterized by weak development of LLL in some dimensions and only exceptionally strong values in a small number of dimensions. The same critique applies to the first group of transition countries. Any influence of a general culture of LLL on company training can be expected to lie clearly below that for the three groups of countries with above average values for company training. In some countries (e.g. Portugal, Greece), restrictions (e.g. available income) important for company training show their impact also in all other dimensions. At the same time, any activity concentrating on enterprises training would have to counterbalance the poor development of the other dimensions.
- The values for the second group of transition states are low on most dimensions and high on not a single dimension. In comparison to the other countries, their LLL system are clearly defined by restrictions (e.g. available income), which are not as important in other country groups. In these countries, we expect the training in companies to be the forerunner of the development of the training system and not as an aspect of the LLL system gaining from the other dimensions.

Our stylisation of the LLL systems of the countries cannot replace a solid, detailed analysis of the country systems and a more elaborated approach for comparing them to each other. Our aim here is only to demonstrate the likelihood that training in companies is – as already stated in Chapter 4 – dependent on societies' approaches towards adult learning. Policies in favour of enterprise training need to be embedded in a general LLL strategy. Here, we follow the dominant reasoning within the field of LLL policy in Europe.

24 Payments received from obligatory levy schemes for enterprise training can be regarded as public co-financing because contributions to these funds are comparable to other obligatory contributions to the social welfare system. Obligatory contributions to institutions of the welfare system are different from general taxes only because funds are earmarked and cannot (depending on national traditions of financial laws) be easily used for other public purposes.

We conclude that the LLL system characteristics have a significant impact on training policies in enterprises. As the LLL system become more comprehensive and better developed, the enterprises receive more requests for training. We expect an impact in the following dimensions:

- Experiences of employees and the members of the management: in well developed systems, more members of the organisation have a longer record of training experience to build on and to share within in the process. More understand what training and further education can achieve for the individual and the organisation.
- Better opportunities for specialisation: In better developed systems, evoking high participation in all fields of adult education, enterprises can build not only on the results of these diversified learning processes, but also concentrate more training specifically connected to improvements in the actual workplace. We expect a better division of work and a higher concentration in enterprises for training on specific goals, where the workplace constitutes a prerequisite and resource for the learning process.[25]
- Attitudes of employees and the members of the management: in fully developed cultures, attitudes more clearly favour training activities.
- Stronger public support for training in a variety of ways: In developed systems, training in enterprises is supported directly by public co-funding offers, but also indirectly by co-funding the training institutions and by supporting training for individuals (no matter if employed or unemployed).
- Better balanced and developed spectrum of training providers: Only in a well developed LLL system will a wide range of non-profit and for-profit training suppliers be present providing a broad spectrum of good-quality educational offers differentiated for varied purposes. In countries with high volumes of company training, all types of providers contribute significantly to that volume
- Well developed coordination: Enterprises profit from good coordination. Independently of the question who finances training, enterprises benefit when their employees' competences develop because of better-coordinated learning offers. Additionally, they fit their own training interests into the system, use reliable offers where appropriate and develop missing elements.

The existing LLL system also defines limitations for training activities in enterprises, because enterprises training can probably not make up for the poor development in the other dimensions. Leaving out the questions of costs and missing infrastructure for training providers, poorly developed systems enterprises would lack the positive experiences with training and the self-esteem resulting from completing successful training.

25 However, we do not mean that this group of learning activities is specific to the actual workplace and cannot be used in other jobs. We would like only to highlight the fact that important fields of competence development need the presence of a current work experience.

5.4 The Impact of public co-funding offers on company training

The national LLL system is the necessary context to study the importance of public co-funding offer for company training. For a given engagement in co-funding of enterprise training, we expect completely different results between countries with fully developed LLL systems and countries where the public engagement in company training must substitute for training offers missing in the other dimensions. Before we return to this integrated approach, we discuss the expected impact of company training in general.

The usefulness of public support schemes for training in enterprises is an unresolved issue. Empirical studies on single instruments find themselves regularly restricted in accessing the necessary information. Effectiveness, efficiency and sustainability are studied in close connection to a sample of beneficiaries (e.g. by running a survey and interpreting their perceptions or by comparing the group of participants with a group of statistically matched non-participants.) Normally, evaluations focus on single programs with a restricted budget and not likely to have any effect on the country level. Any expected result is normally below the scale that could be measured by the general reporting systems (e.g. the LLL Indicator of the Labour Force survey).

Therefore, the impact of co-funding can hardly be demonstrated on the macro-level. Even relations between a given budget of co-funding (e.g. 10 Million Euros) and the general training activity of enterprises are limited. Many co-funding programs described have too limited resources to be likely to boost average training activities in one country.[26]

Finding a relevant quantitative estimate for public co-funding offers for company training is difficult. Enterprises may profit substantially by public investment in institution of further training: this kind of support can be found in the LLL system approach, but not separately.

Another problem involves the different settings of public co-funding. Normally, co-funding financed out of the general tax funds of a state and co-funding based on obligatory contribution to the social security system (conceptualised as a second taxation system) are both regarded as public co-funding. Enterprises contribute to the revenues of both systems significantly. Receipts from obligatory training funds are often not seen as public co-funding, because a more direct link between contributions and beneficiaries remain visible. Actually, obligatory training funds can be regarded in the same way as contributions to the social security system, where contributions are foreseen for designated purposes. The history of the development in training funds (for example Italy[27]) reveals the trade-off between contributions to special fund devoted to training and employers' contributions to the unemployment insurance system. The expected effects of the co-funding payments on the enterprises' training activity should not depend on the form in which the distributed resources are first collected. Here, the eligibility criteria should define efficacy and efficiency.

26 Compare the calculation tool provided on www.trainingineurope.com.
27 CESPIM wp 12

Any impact analysis should primarily discuss the possible impact of public co-funding offers on groups of enterprises with different training cultures. We return here to our tripartite schema of section 4, studying excluded enterprises, enterprises with reactive training cultures and enterprises with expanding training cultures. Overview 5.3 sums up the argumentation.

The immediate impact of any available public co-funding should have positive effects mainly for:

- Enterprises otherwise excluded from training – substantial difficulties exist in accessing this group of enterprises;
- Supporting the change from a reactive to an expansive training culture. For this kind of change, co-funding programs should be available for longer periods and with substantial co-funding volume.

In general, we expect little impact of isolated co-funding programs on the countries' average training figures, if the schemes are not targeted and not systematically interlinked with the LLL system. When established as part of the LLL system, we expect substantial contributions of co-funding programs to the system's capacity.

Overview 5.3

Selected consideration on the relation between the education structure of the workforce and training in enterprises

		Enterprises – Excluded from training (no/very low training activity)		Enterprises with a reactive training culture		Enterprises with expanding training culture
Effectiveness	+	Overcome financial restrictions	+	Well accepted If targeted, involvement in activities for target groups may grow	+	Well accepted Only highly targeted intervention may have an impact on the policy
	-	Enterprises get hardly involved with the programs when they miss the preconditions to profit from the result of training No organisational support within the organisation	-	In general: very low; Level of training activity remains unchanged and clearly in line with discrete needs (e.g. training for the implementation of new technologies)	-	As financial burden is not the prior limitation for evolving training programs, co-funding have little effect
Efficiency	+	High – without co-funding, no training	+	For clearly targeted groups, medium (replacements may occur)		Positive only in cases of highly targeted offers
	-	High costs involved for attracting enterprises (often higher than the actual co-funding budget)		Not targeted offers: low – dead weight is supposed to be high; (most of the actual training activity may become co-funded)		High dead weight effects; in case of large enterprises with a expansive training culture, deadweight loss may be limited by maximum levels of co-funding[28]
Require-ments for Sustain-ability		Positive experience and results may change the conditions of the enterprises		If the co-funding supports the development towards an expansive training culture		Mainly in reducing the overall costs of an expansive training culture (support continuity throughout the business cycle.
Visibility in activity rates (e.g. hours of training/employee)		Clearly visible (but group contribute little to the overall training activity)		Restricted visibility (changes are not likely to be significant)		No change (targeted co-funding may change kind of activity but not volume of activity)

28 Compare for example the 'de minimis' regulation within co-funding within the European Social Funds, limiting the total co-funding for the individual enterprise.

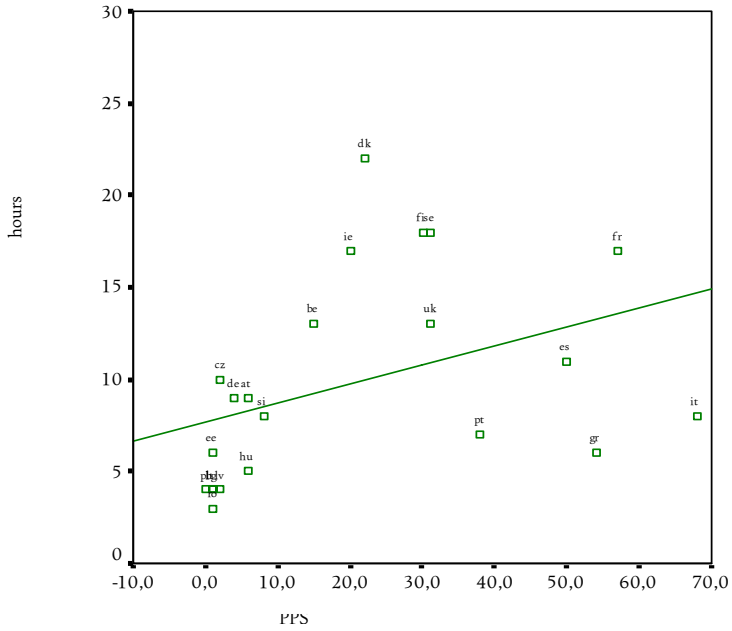
Using CVTS II data on receipts from public funds as a proxy, we analyse the impact of the co-funding system on company training. All countries, with training activities above 10 hours, have a significant public co-funding per employee in enterprises with training courses.

In four countries with high public co-funding per employee, we find low rates of training activities. The economic strength of three of the countries is comparatively low, which partially explains the divergence between public engagement and training activity (and training figures are likely to remain lower without this major public engagement). However, in all four countries, the co-funding is concentrated on a smaller basis of training active enterprises and the general development of the LLL system is clearly not favourable.

We conclude therefore, that as a part of the LLL system, public engagement in training in enterprises contributes to the training performance of enterprises. The absence of a long-term engagement restricts the options to overcome the exclusion of enterprises on the one hand and the change to expansive training cultures on the other hand. At the same time, public co-funding for enterprise training is limited in its scope, as long as the LLL system is not fairly well developed in its main components.

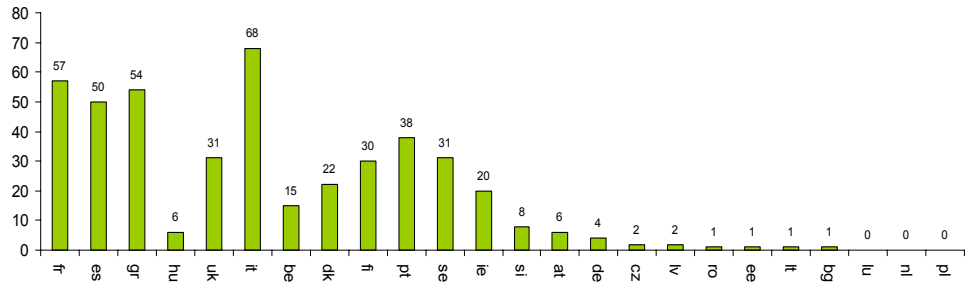
Diagram

Scatter Diagram – CVTS hours per employee and receipts of funds (1999) per employee in training active enterprises



Source: Eurostat - dissemination database (accessed: 15 February 2007)

Diagram
Structure of costs (in PPS) of CVT courses per employee in 1999 - a) Total of paid and received payments, b) Contributed payments, c) Received payments and d) Differences between contributed and received payments)



6 Conclusions – Why are average figures on training in companies so different throughout Europe?

In the present paper, we have considered three levels of approaches to assess differences in average training figures for enterprises in Europe.

- First, at the micro-level of the enterprises, we discuss in Chapter 2 the importance of considering enterprises' training cultures as a necessary core dimension of any approach to explain differences in enterprises' training activities. In Chapter 3, we argue for the need to develop information on the actual reasons for training on a company level, again closely connected to our proposed differentiation between enterprises with reactive and enterprises with expansive training cultures. We discuss, with the help of several examples, why differences in the occurrence for clearly isolated reasons to train are not likely to explain a large proportion of differences in the average training activity between the countries. While single reasons to train – e.g. job mobility or regulations on security or quality management – can count for a certain quantity of training, we emphasised that differences in this quantity are small compared to differences resulting from differences in the composition of the economy out of enterprises with different approaches to training.
- Second, at the level of the general socio-economic background, we argue that the composition of the economy and societal structures of social inclusion broadly determines the probability of finding enterprises with reactive and expansive training cultures. We define as a third group, those enterprises practically excluded from the opportunity to provide or to profit from training. We emphasize that this level is important in explaining the differences in average training figures between countries.
- Third, at the level of the interplay of the enterprise training policy with defined factors in the environment, we developed the concept of three main frameworks (labour market, education system and LLL system). We argue here that it is hardly possible to isolate single factors within these three frameworks or even the three-framework model. We find the three frameworks clearly interrelated with each other and with the social space. Indicators available express more than the intended isolated fact in its relation to enterprises' training policy. They express, at the same time, a probability of finding enterprises with different approaches to training, an influence on the development of enterprises' training cultures. While an isolation of 'causes' to train involved in the framework concept fails, we show in an integrated approach, that training in enterprise can be analysed in the context of national LLL systems. While it is difficult to phrase, how a single framework factor – e.g. the existence/non-existence of public co-financing programs for training – shapes enterprises training policies, we show that a more integrated approach make sense and that it reasonable to stress the overall importance of the LLL system for company training. To put it in other words: Differences in the development of the LLL system definitely explain a significant part of the differences in the training activities between countries.

Overview 6.1

Summary of reasons for differences in average training figures in seven country groups

		I	II	III	IV	V	VI	VII
		Strong Social Democratic Tradition – Welfare State	Liberal Welfare State Countries	'Mixed' Welfare State Regime Countries	Conservative Welfare State Countries	Late Democratic Transition Countries	Post-socialist Countries – First Group	Post-socialist Countries – Second Group
		DK, FI, SE, NO,	IE , UK,	BE, FR, LU , NL	DE, IT, AT	GR, ES, PT	CZ, HU, PL, SI	EE, LV, LT , BG , RO
A Struc-ture	Strong influence, separating Groups 1-4 from 5-7	Little Restrictions	Some Restrictions	Some Restrictions	Medium Restrictions	Strong Restrictions	Strong Restrictions	Very Strong Restrictions
B Training cultures	Very Strong Influence – expected to explain half of the country differences or more	*Expectation: Number of enterprises with an expansive training culture is ...*						
		Clearly above average	*Clearly above average*	*Above average*	*Below Average*	*Below Average*	*Below Average*	*Clearly Below Average*
		Open Tasks: Re-Analysing the CVTS III Data – Operationalisation of 'Expansive Training Cultures'						
C Environ-ments	Comparatively weak direct influence (but influencing B)	Mainly favourable	Mainly favourable, but: segregation issues	Partly favourable, partly dis-favourable	Partly favourable, partly dis-favourable	Partly favourable, partly dis-favourable	Partly favourable, partly dis-favourable	Mainly disfavour-able

3s research laboratory, www.3s.co.at

Overview 6.1 brings together, for seven groups of countries, the arguments on the three levels. It emphasises that the economic framework – defining the proportion between excluded enterprises, enterprises with reactive training culture and enterprises with expansive training cultures – if of crucial importance, followed by the level of social inclusion in close connection to the different approaches of welfare state and the development towards a democratic, welfare capitalistic societies.

Group with the highest average training performance – countries with a strong social democratic tradition of welfare state (Sweden: 3rd place, 18 hours, Finland 2nd place, 18 hours, Denmark 1st place, 22 hours, Norway 6th place, 16 hours): Strong economic performance (GDP/inhabitant above PPP) reflects a low presence of low-productive, low-wage enterprises that do not have resources to provide training. A country's high-wage policy limits the use of low-productive, low-wage production techniques. In Sweden, the percentage of employees in large enterprises (500+) is above the average, in Denmark and Finland, slightly below the average and in Norway clearly below the average. All four countries have lasting democratic, egalitarian traditions. Social-democratic, welfare-state traditions lead to a low rate of social exclusion. Inclusion policies are vital for the education and labour market policy. A well developed, LLL-

system that builds on a broad tradition in adult education supports a strong commitment from enterprises to training. The number of companies with an expansive training culture is expected to be clearly above the European average. LLL system includes a strong diversified spectrum of training providers, including public education institutions and non-profit training centres. Together with a comparatively high direct co-funding of enterprise training, this leads to a broad diffusion of training activities, even among small enterprises (1019, 20–49 employees). Training activities per employee in small enterprises reach 78 per cent to 92 per cent of the combined high country averages.

High Performance group 1: Liberal Welfare State Countries (Great Britain 10th place/13 hours, Ireland 5th place/17 hours). Both countries are characterized by a strong economic performance (while for Ireland a quite recent development), driven by outstanding strength in some economic sectors and economic turmoil including a boosted structural change of the economy in the past two decades. Besides high productive, high wage sectors, the economic structures also allows a strategy built on low production costs based mainly on low wages. While the percentage of employees in large enterprises (500+) is clearly above average in Great Britain; in Ireland, a considerably low number of employees is employed by larger cooperation (second lowest presence of large enterprises, only half of the EU average). Strong income inequalities are partially outweighed by a liberal welfare state regime. Culture is clearly oriented towards qualification and lifelong learning as a basis of individual performance on a competitive labour market with outstanding differences in payments. We expect a broad presence of enterprises with an expansive training culture and an outstanding training activity. However, the number of enterprises with a low-cost, low-wage strategy has an impact on the average figures for company training. The LLL system is comparatively well developed and based on a lasting liberal democratic tradition and a high connectivity to the general education policy. As equity in education and education policy has a long tradition before appearing on the political agenda, the LLL system is quite inclusive and well developed, but still a major part of the people are excluded from participation. Co-funding initiatives for training in enterprises are very developed. In Ireland, even small corporations have particularly high figures for training hours per employee. In Great Britain, the considerably low average training activity of enterprises with more than +1000 enterprises have a strong impact on countries average training activity. Average training figures for small enterprises and medium enterprises up to 1000 employees are among the highest in Europe in absolute figures.

High Performance group 2: 'Mixed' Welfare State Regime Countries (France 4th place, 17 hours, Netherlands, 7th place/15 hours, Luxembourg 8th place, 14 hours Belgium 9th place, 13 hours): The group is characterized by a strong economic performance, driven by major enterprises (especially in France and the Netherlands) and a well developed spectrum of medium-sized enterprises. The number of employees in large corporations is clearly above the average in France, slightly above or even to the average in the Netherlands and Belgium and clearly below in Luxembourg. The LLL system are fairly well developed, especially in France, but in no country in all dimensions. Strengths (e.g. co-funding for enterprise training) are counterbalanced by the weak development of other dimensions (e.g. alternative pathways in formal education in France). Training activity among small enterprises is

well developed in the Netherlands and slightly less developed in Belgium. In France, average training activity of small enterprises (up to 50 employees) is weakly developed, both in relative and absolute measures. So the French co-funding structures do not support successfully a broad training participation in small enterprises and the high average figure on country level is determined by the training activity of the 1000+ cooperations with nearly 40 per cent of the employees and approximately 60 per cent of all training activities.

Below average performance Group 1: Industrialized Countries with a conservative welfare state regime (Germany 13th place, 9 hours, Austria 14th place, 10 hours; Italy 15th Place, 8 hours). General economic performance is high and on the same level as for countries showing a clearly higher training activity of their enterprises. Economic structure is dominated by a comparatively high number of major enterprises, providing ground for the development of high productive clusters of SMEs. Percentage of employees in large enterprises is average in Germany, slightly below average in Austria and clearly below average in Italy. Also, in Italy, the percentage of employees in small enterprises stands out among the highly industrialized countries. Other parts of the economy fall clearly behind these two groups. In Germany and Italy, regional disparities in economic strength are comparatively high. Education systems took a long time to overcome a clearly excluding, segregating operations, which was highly enforced during fascistic and national socialist regimes. Still, the process falls far behind the levels achieved in the first three groups of countries. The post-1990 unification of East and West Germany had an important impact on Germany's average figure. The LLL system is characterized by major imbalances, as the state is active only in some of the dimensions. In 1999, public engagement in training in enterprises was weak in Germany and Austria. In all countries, the state takes little role in coordinating the LLL system, which is regarded as a more or less a state free zone, while state activities are highly developed in the field of general education and initial vocational training. In Austria and Germany, small enterprises reach high 78 per cent, respectively 67 per cent of the rather low country average. In Italy, small enterprises, hiring 40 per cent of the employees, have an outstandingly low training activity, reaching only one third of the country average.

Below average performance Group 2: Late democratic transition countries: (Spain, 11th Place, 11 hours; Portugal 16th place, 7 hours; Greece 18th place, hours). All three states are still in a process of catching up economically, which have take up speed first, by the change from fascistic regimes to democracy and second, after their joining the European Union. Average income is comparatively low. In the mid 1970s, all three countries faced a severe economic breakdown and had become widely excluded from the industrial development of Western Europe in the decades after World War II. In all three countries, there is a co-existence of highly productive, high-tech enterprises and low-productive, low-wage enterprises. A comparably high number of enterprises is expected to share characteristics excluding from the successful offer of training. A comparatively low number of (often major) enterprises with an expanding training culture are expected to count for a substantial part of the total training volume in enterprises. In all three countries, the percentage of employees in large enterprises (+500) is clearly below the average of the participating countries of CVTS. At the same time, the concentration of training activities in these large enterprises is comparatively high and above the average. A developed welfare

state system (providing support in case of accident, sickness, retirement and unemployment) and a more inclusive educational system has been developed in waves since the democratic revolution. Social segregation within the initial education system (originally including tuition fees for higher secondary and tertiary education) have only been reduced in a longer process. Family networks retain their importance in providing limited social security standards. Given the time lag, the social security and education level of the population still lies significantly below the other 'old' member states. In all aspects, Greece falls clearly behind the other two countries. As a heritage of fascist period with its clear orientation towards a segregated traditionalistic class society, income inequality is particular high. The proportion of the population with relatively low incomes is high, which limits their access to further education offers. LLL system is weakly developed in Portugal and Greece, but clearly better in Spain. Co-funding offers for training in enterprises are well developed but cannot make up for the development in the other system characteristics. In particular, they fail to enable small enterprises in providing training more frequently. In all three countries; but particularly Portugal and Greece, the training activity of small enterprises are low. So while up to one third of the employees work for enterprises with up to 50 employees, less then one tenth of training hours are offered by these enterprises.

Below average performance Group 3: Post-socialist countries – first group (Czech Republic, 12th place, 10 hours; Slovenia 16th Place, 8 hours, Hungary 20th place, 5 hours Poland 23rd place, 4 hours) We characterize the rather heterogeneous group of countries by their strong industrial traditions (even counterweighted by major agricultural sectors in the case of Poland and Hungary), rooted in the pre-socialist era. In 1999, economic power is clearly below the level of the 'old member States'. Steps towards market economy and liberalization have been taken earlier than in the second group of countries. Economic restructuring was fairly advanced in 1999, but put pressure on domestic enterprises. Establishment of foreign companies had reached a substantial level. The percentage of employees in large enterprises (+500) is slightly above or on average in the Czech Republic and Hungary, and clearly above average in Slovenia and Poland. Training in enterprises is expected to be concentrated partly in downsized former state owned large-scale enterprises and in restructured or new enterprises owned by internationally active businesses. Average level is comparatively low. The welfare state system was partially based on pre-socialist tradition; in principle well-developed in the communist area, but strongly affected by the economic decline in the pre-transformation area. Reforms brought both more restrictive regulations but an actual increase of actual provided support alongside with the economic recovery. The education system is inclusive and only a small proportion of the workforce hold a qualification on ISCED 0-2 level. The LLL system is comparatively weakly developed. While in Slovenia and the Czech Republic, small enterprises have a comparably high average training activity, this is not true for Hungary and Poland.

Low performance group: late-transition countries - second group (Estonia 19th place, 6 hours, Latvia22th place, 4 hours, Lithuania, 23rd place, 4 hours, Bulgaria 24th place, 4 hours, Romania 25th place, 3 hours): The group comprises two subgroups the Baltic countries on the one side, Bulgaria and Romania on the other side. Economic capacities are far below the average of the old EU-15. Bulgaria and Romania lacked a strong industrial tradition in the pre-communistic period. The Baltic states were

strongly involved in the economic relations of the former Soviet Union and therefore had to face a more difficult transition process, but can relay on their traditions and pre-soviet integration in economic relations to north Europe. The Baltic states, too, are characterized by an outstanding low proportion of employees in large enterprises. In Bulgaria, the percentage of employees in large enterprises is also below the average, but already twice as high as in the Baltic states. In Rumania, in 1999, large enterprises dominate the picture, employing more than a half of all employees covered by the survey. In all states of the groups, restructuring of social protection after the system changes follow a restricted model, provision in the different fields (health, age, unemployment) remain clearly below the level of the countries in the first transformation group. All countries have a comparable inclusive education system and low proportion of employees on the ISCED 0-2 level. The Baltic states also have a highly developed higher education system. However, all countries have a strong discrepancy between available qualification and positions offered on the labour market. The LLL system is comparatively weakly developed, restrictions for training in enterprises also limits, in general, participation in adult education. In all countries, the average training activity of small enterprises is outstanding low (with the exception of Estonia).

From our analysis so far, which illustrates our own research and learning process, we would like to draw three conclusions: firstly, concerning the future research need; secondly, concerning areas of policy intervention to support lifelong learning in enterprises; and thirdly, our expectation for the further development on training in enterprises and differences in the training performance in Europe.

On the methodological level, we have shown the difficulties arising from the current presentation of average figures on training activity of companies. Without additional information on the distribution of values and the number of high and low performing enterprises, the CVTS data provide little help for analysing the background of large differences in the average figures of the European countries. At the same time, the schism between mainly quantitative oriented research on company training and the more fieldwork oriented qualitative approaches in the study of workplace learning and learning organisations have been found to be a main obstacle for any further development. Here, we are still missing a clear conceptual framework discussing the interplay of the different forms of learning in the workplace, which takes place mainly by participation in processes and communities of practices, the different ways to support workplace learning and the development of competences and training as one particular instrument in this field. Comparable quantitative data on enterprise training, provided by the CVTS services, remain an important asset for the research on workplace learning and company training. At the same time, the existing data should not obscure the fact, that we still miss basic information on many topics. As we have shown in Chapter 3.2, we actually cannot answer the question, why enterprise train properly, as we have not found any data on this topic and enterprise themselves often do not report on the different reasons to train. Therefore, while it is not difficult to present different justifications for training provided, we are not in the position to provide any figures for training activities connected to different goals of enterprises' training policies.

Overview 6.1

Summary of the expectations for future development of average training figures for seven country groups

	Importance of change	I	II	III	IV	V	VI	VII
		Strong Social Democratic Tradition – Welfare State	Liberal Welfare State Countries	„Mixed" Welfare State Regime Countries	Conservative Welfare State Countries	Late Democratic Transition Countries	Post-Socialist Countries – First Group	Post-Socialist Countries – Second Group
		DK, FI, SE, NO,	IE , UK,	BE, FR, LU , NL	De, It, At	GR, ES, PT	CZ, HU, PL, SI	EE, LV, LT , BG , RO
A Structure	Major influence – positive/ negative	Slight improvements	Stagnation? Loss of jobs in major companies may balanced by the equal creation of new job s in high/low productive enterprises			Slight improve-ments	Strong improvements	
B Training cultures	Strong, but mixed influence	Slight increase of companies with expanding training cultures		Slight increase of companies with expanding training cultures; but severe reduction of employees in traditionally highly training active enterprises			Strong increase of companies with expanding training cultures	
C Environments	General improvements, path dependency – Strong impact of Union Membership	Slight Improvements					Strong Improvements	
	Expected outcome	Slight increase	Stagnation?	Stagnation?	Stagnation?	Slight Increase	Strong increase	Strong increase

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On the policy level, we would like to emphasize that any policy on company training should be assessed as an integrated part of industrial policy, innovation policy in particular as well as Social policy, regulations on the labour market and the unemployment insurance system in particular. Any substantial progress towards the full use of the potential involved in company training, is depended from the general approach in industrial and economic policy. Influences on the level of general economy, e.g. the support or restriction of low-wage industries, are likely to outweigh any particular initiatives in the field of LLL policy. Nevertheless, any progress towards a more comprehensive LLL system have to include the support for training in enterprises as one core element among the dimensions to be addressed. Here, public co-funding mechanisms are likely to contribute to the development, if they clearly focus on a project based approach, supporting training activities enterprises have not been adopted so far. By widening the experience with training and development projects with specific criteria, it should not only be possible to support specific target groups at risk to remain excluded from training at the workplace, but also to support the transformation of training cultures towards expansive ones.

In the future, we expect three main trends with a substantial impact on the countries average figures for company training. First, the progress of economic reform and restructuring of the economy will clearly reduce the number of companies without a real chance to offer training in the post-socialist states. Additionally, internationalisation of the economies will increase sharply the number of companies with an expansive training culture. Meanwhile, the closing down of training organisations of former state owned companies should also end. Therefore, for many countries, we would expect clear increases of company training. In the countries with higher training activities, but also in Germany or Austria, losses in training activity due to reduced workforce and restructuring of large scale training programs in sectors with traditionally high training activity have to be balanced by increased training intensity and increased training activity in enterprises in general. Here, it is not clear, if the countries' total will increase. However, the coming CVTS III data will involve the large temptation to interpret changes in the average training activity against changes in the training behaviour of enterprises and not as a complex interplay between changes in behaviour and changes in structure of enterprises. The data may tempt one to forget that we are still far from understanding in a comparative approach on the macro level the particular interests for learning and training in the workplace and training.

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29 One of the main arguments was that enterprises may face restrictions in financing training investments with credits, because training investment represents no material goods that can be mortgaged as are investments in machines. So training investments must be financed out of the current earnings, ((Bassanini et al., 2005)61)
30 A non-linear relation between unemployment and additional training needs to overcome increasing mismatch. Any detailed table of estimates for different additional training hours for different levels of unemployment must be subject of empirical experiments of different kinds, and should be based on longitudinal panel data. For international comparison, the different composition of the stock of unemployment must also be taken into consideration, which is determined differently by persistent long-term unemployment on the one hand and temporary withdrawal of people interested in work on the other hand.
31 (Bassanini et al., 2005), 112 also points out, that institutions shaping the labor market (e.g. unions, school system, product market regulation) may have quite a different impact in different country settings., which cannot be identified on the basis of available data because of the impossibility to control for the full set of confounding country specific effects.)
32 While this fact is unanimously noted, the reason behind these phenomenon are discussed fiercely. Possible differences in motivation between high and low skilled workers are identified; other research examines differences in opportunity structures and expected results from employees holding different qualifications.
33 Thereby, we do not mean at all that this group of learning activities is specific to the actual workplace and cannot be used in other jobs. We would like only to highlight the fact that important fields of competence development needs the presence of a current work experience to be related with.
34 Compare the calculation tool provided on www.trainingineurope.com and the included descriptions, how we have calculated our estimates.
35 CESPIM wp 12
36 Compare for example the „de minimus' regulation within co-funding within the European Social Funds.

Page: 3
[HO1] I'm not sure what this should mean.
Page: 9
[HO2] I'm not sure what this should mean.
Page: 10
[HO3] Should this question remain?
Page: 11
[HO4] I assume that you want to replace these question marks.
Page: 14
[HO5] I assume that you want to complete this before publishing.
Page: 15
[HO6] Something to complete before publishing.
Page: 15
[HO7] Something to complete before publishing.
Page: 15
[HO8] Incomplete citation.
Page: 17
[HO9] There is only one conclusion 'bulleted'. (Only point a.)
Page: 17
[HO10] I'm not sure what this sentence means. A dysfunctional training culture is not a sign that an organisation has learned to make good use of training.
Page: 23
[HO11] Should this stay in your working paper?
Page: 30
[HO12] Should this stay in your working paper?
Page: 39
[HO13] Should this stay in your working paper?
Page: 64
[HO14] In the diagram, you should capitalise the country abbreviations to fit international conventions; e.g. AT not at. Also, ISCED should be fully capitalised instead of Isced.
Page: 70
[HO15] I have difficulty editing the pictures, but you may want to change the abbreviations ie and uk to the more internationally accepted style of all CAPs.
Page: 70
[HO16] Did you mean Great Britain (England, Wales and Scotland) or the United Kingdom (Great Britain + Northern Ireland)? The diagram uses the term United Kingdom.
Page: 76
[HO17] Which diagram are you referring to?