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Some Micro - Meso - Macro Relations In Lifelong Learning

CONCEPTUAL FRAMEWORK PAPER FOR LLL2010

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LifeLong Learning 2010

SIXTH FRAMEWORK PROGRAMME

LLL2010

WORKING PAPER N° 17

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Conceptual Framework paper for LLL2010

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Tallinn 2008

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This Working Paper is published in the Working Paper Series of an international research project "Towards a Lifelong Learning Society in Europe: the Contribution of the Education System" (acronym LLL2010) to reflect state of the art results of the research still in progress.

The project involves researchers from thirteen countries and regions of Europe: Scotland, England, Ireland, Austria, Belgium, Slovenia, Czech Republic, Estonia, Lithuania, Hungary, Bulgaria, Norway and Russia. Further information on the project is available online http://LLL2010.tlu.ee

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Table of Contents

1. Purpose of the paper

This draft conceptual paper on micro-macro relations proposes a framework that observations and findings from each subproject (SP) can be referred to. It might therefore better embed (theoretically and methodologically) each SP and contribute to the cohesion between all SPs. In particular for those SPs that have not yet started or still are at an early stage, the paper should offer a framework for formulating hypotheses to be used during the implementation of each SP. The point of departure of the conceptual paper is the description of the project submitted to the European Commission as an annex to the application. The work on this draft paper has been sparked off by comments from the EC and the review team on the need to elaborate on the cohesion between all subprojects.

In the following chapters the structure of LLL2010 is first presented while outlining how it intends to cover a micro, meso and macro level of analysis. Chapter 3 is devoted to the conceptual framework as such, and sets out to explain how characteristics of LLL can be used for making typologies of LLL. The fourth chapter is an attempt to illustrate how LLL characteristics can be measured by splitting them into various dimensions leading to LLL indicators. The last chapter discusses implications of LLL characteristics and typologies for the LLL2010 subprojects and traces some of the expected outcomes of the entire project.

2. Structure of the project LLL2010

Participation in lifelong learning is approached as being subject to influence of national policies, institutional factors and strategies of relevant actors on three - macro, meso and micro – levels.

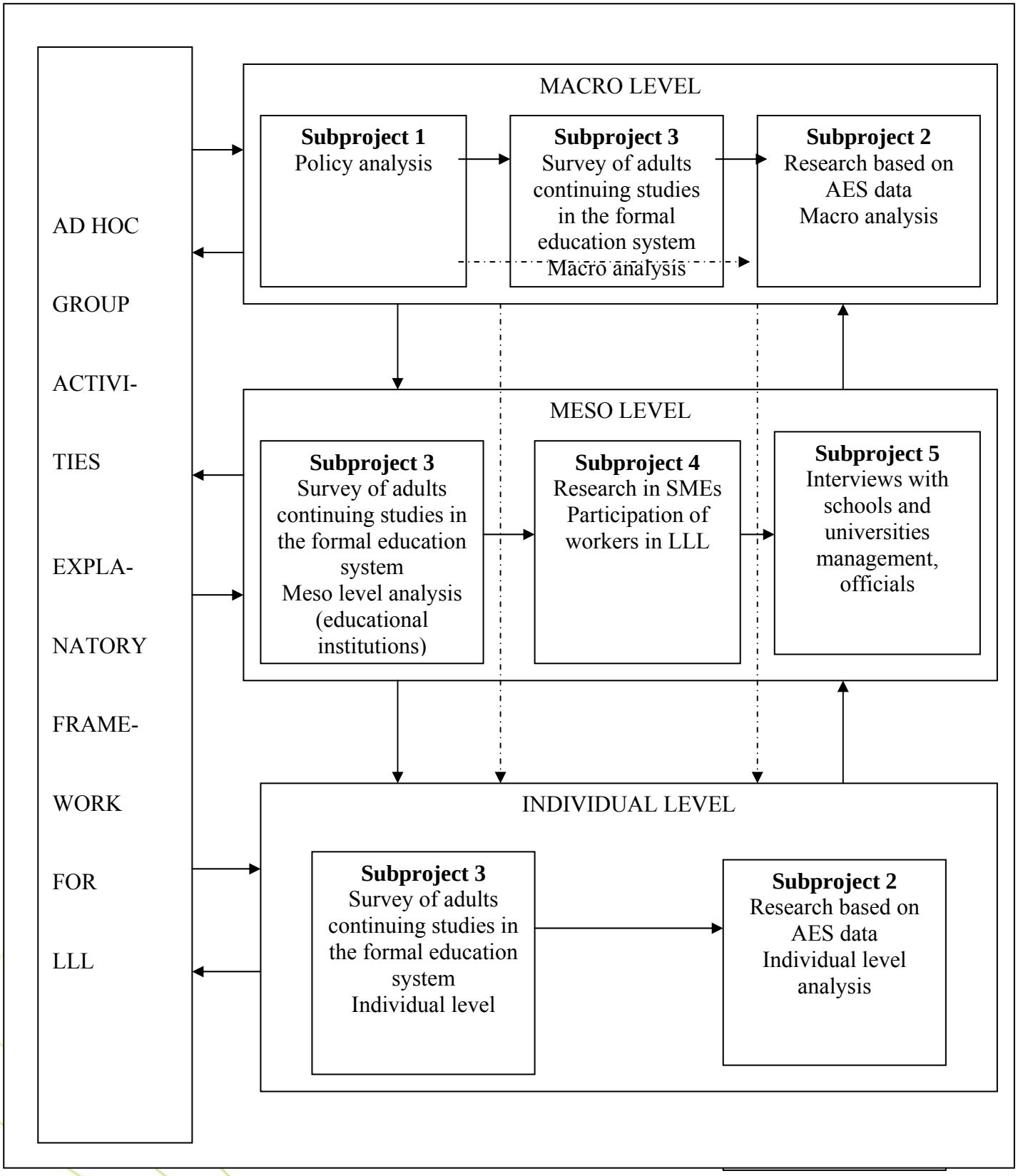
The project's points of departure are the following: **First**, we assume that lifelong learning is functional within the broader economic, social and cultural systems in which it is embedded. Country-specific and historically grown institutional systems (for example, education system, employment system, welfare state regime etc) shape the opportunities as well as incentive for lifelong learning. **Second,** all subsystems strongly interact. It means that the differences between systems are systematic. The systems may be classified along various dimensions of institutional variation, and they may be grouped into types of systems with common characteristics. **Third,** these institutional 'packages' and subsystems yield strikingly different outcomes of analogous political reforms and are the main mechanisms for promotion of the so-called Europeanization. It means that solutions are path-dependent and changes are 'institutionally bounded'.

Within the project empirical studies will be carried out with regard to macro, meso and micro levels in order to take into account macro-structural factors and national policies, as well as institutional factors and actors' motivation and actions, which are all considered to influence the role of educational systems in promoting lifelong learning. Analyses will be based on the following surveys and data: (a) individual learners (a survey of adult learners in schools and universities and data from Eurostat driven Adult Education Survey and/or Ad Hoc Module on Life Long Learning 2003); (b) educational institutions (interviews with schools' management and officials from education ministries); (c) enterprises (case studies in SME, interviews with management, line managers and participants in formal education).

The proposed methodology addresses the different dimensions of the subject of research. The research covers **three levels as well as different aspects**:

- *Macro level, macro-structural aspect* to describe how country specific institutions influence the supply and demand for lifelong learning. We will at first analyse the historical developments in education system and educational policy. We will then use various typologies and will try to show how the institutional differences have influenced the access of adults to education system as well as demand for different types of skills and levels of education (SP1, SP2, SP3, ad hoc group activities).
- *Macro level, policy aspect* to describe different lifelong learning concepts fixed in EU level as well as national policy documents, to analyse national policy measures focusing on lifelong learning policies, to identify the barriers to a co-ordinated focus across different policy field and the concrete initiatives and public sector policies implemented at each level of the education system (SP1).
- *Meso level, schools, universities* to analyse the role of schools to meet the lifelong learning challenge, to promote the access of adults to education system. 15 interviews with (vocational, secondary) schools and universities management, officials of education ministries in each country will be carried out (SP5).
- *Meso level, small and medium sized enterprises,* to analyse the more fruitful approaches to improving the financial incentives for small and medium enterprises to invest in adult general education and the demand of SME for more educated employees. We will carry out 8-10 case studies in SMEs, involving HRD managers, line managers and employees participating in formal education and analyse the results (SP4).
- *Micro level, adult population,* to analyse participation and access of adults to formal learning. We will analyse the data of EUROSTAT Adult Education Survey (2006-2007) (or ad hoc module of lifelong learning of EU-LFS) (SP2).
- *Micro level, adult learners*, to analyse the motivation of adults participating in formal learning , the expectations and attitudes towards LLL, obstacles to access and support received, determinants of choice behaviour, evaluation of the ongoing training, etc. We plan to carry out the Survey of adults studying in formal education system (basic, secondary and tertiary level) (SP3).

Figure 1. Scheme of the LLL2020 project



3. Conceptual framework[1]

The conceptual framework comprises four LLL characteristics that may lead to typologies of LLL systems.

Individual lifelong learning processes and outcomes. These comprise the processes and outcomes, measured at the level of the individual. They include participation in different types of LLL, different outcomes of learning processes, satisfaction with learning etc.

Collective lifelong learning processes and outcomes. These embrace processes and outcomes occurring in collective contexts; varying from local community associations, and trade unions to professional and sectoral associations as well as enterprises.[2]

National patterns. These are aggregate patterns of processes and outcomes at national level. They include national averages and distributions (for example percent of participation in formal learning), relationship between different key parameters, inequalities (for example in relation to education level, labour market status, gender, ethnicity etc.).

Institutional and structural dimensions of lifelong learning processes. These comprise institutional and structural features of the labour market, the education and training system, skill formation system and other aspects, represented as macro-level variables and dimensions**.**

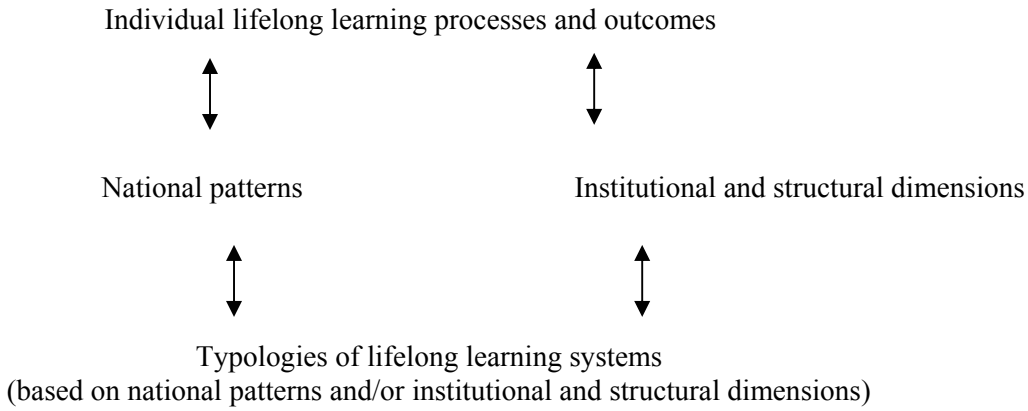
Typologies of lifelong learning systems ensuing from the LLL characteristics. Such typologies may be constructed by classifying countries on a number of the institutional and structural dimensions (either one or two dimensions which are assumed to be most important, or theoretically based clustering of several dimensions). Alternatively, typologies may describe countries with distinctive national lifelong learning patterns (constructed using analysis on the aggregated micro data).

[1] This chapter has been prepared using Raffe's (2006) approach.

[2] As to the enterprise level, which particularly will be addressed in SP4, only learning that is participatory (instead of responding to commands from above) can easily be classified as collective.

The framework is illustrated in figure 2:

Figure 2. A conceptual framework of lifelong learning characteristics.



The following subchapters provide more details about each LLL characteristic and finally return to the question of LLL typologies.

3.1 Lifelong learning processes and outcomes

Most analyses of individual level (micro level) analyses focus on lifelong learning processes and outcomes. For example

1. *Lifelong learning process*
    - Type of learning: formal, non-formal, informal
    - Type of the learning activity
    - Content of learning: work-related, not work related
    - Institution
    - Organization of learning part-time study, modular courses
    - Entry routes
    - Costs
    - Financial assistance and support
    - Motives for participation
    - Experiences and perspectives of adult learners

2. *Labour market outcomes*
    - Salary
    - Unemployment
    - Tenure/security of employment

National patterns

Micro processes and outcomes described in previous chapter form national patterns. This patterns may be identified in different ways:

1. Aggregate lifelong learning processes and aggregate outcomes.
   Processes and outcomes may simply be aggregated to produce national averages or distributions such as percentage of adult population participating in non-formal learning or average duration of learning (Bassanini *et al.* 2007; Dieckhoff *et al*. 2007).
2. Correlation between participation in LLL and labour market outcomes.
   The question is how far LLL benefit workers in terms of higher pay, of higher job security etc. It has been found that this influence varies across countries (Tåhlin 2007; Dieckhoff *et al.* 2007).
3. Inequalities in participation.
   National patterns may be compared with respect to the size or nature of structured inequalities such as gender, occupational class, educational level, economic activity, age group, ethnicity etc.

Most comparative research has examined a relatively narrow range of lifelong learning processes and outcomes and consequently lifelong learning patterns. This largely reflects the limitations of comparative data. With a few expectations the comparative research has not connected closely with the wider research on skill formation system, innovation, family etc. Few comparative studies have included the direct observation of employer behaviour.

Institutional and structural characteristics

The linkage between participation in lifelong learning and features of institutional settings is approached in different ways:

(a) particularities of these institutional settings are not explicitly defined, they are taken rather for granted, their impact on the decisions and motivation of individual actors are approached to a rather universalistic manner, differences between countries are rather those of quantity: same kind of mechanisms work in all the countries in a similar way;

(b) particularities of institutional settings are approached as sources of qualitatively different impact they exert on the decisions and motivation of individual actors, but whether some institutional dimension is approached as the single most important and all differences in participation are derived from this single dimension or few institutional dimensions are considered to be important, but their impact is considered rather consecutively;

(c) *interrelation* between different institutional dimensions is explicitly approached as exerting complex impact on participation in lifelong learning, moreover, linkage between participation in training on one side and labour market and education system on the other, is understood not as just 'one way' road, but rather as dynamic feedback (Markowitsch and Hefler 2007);

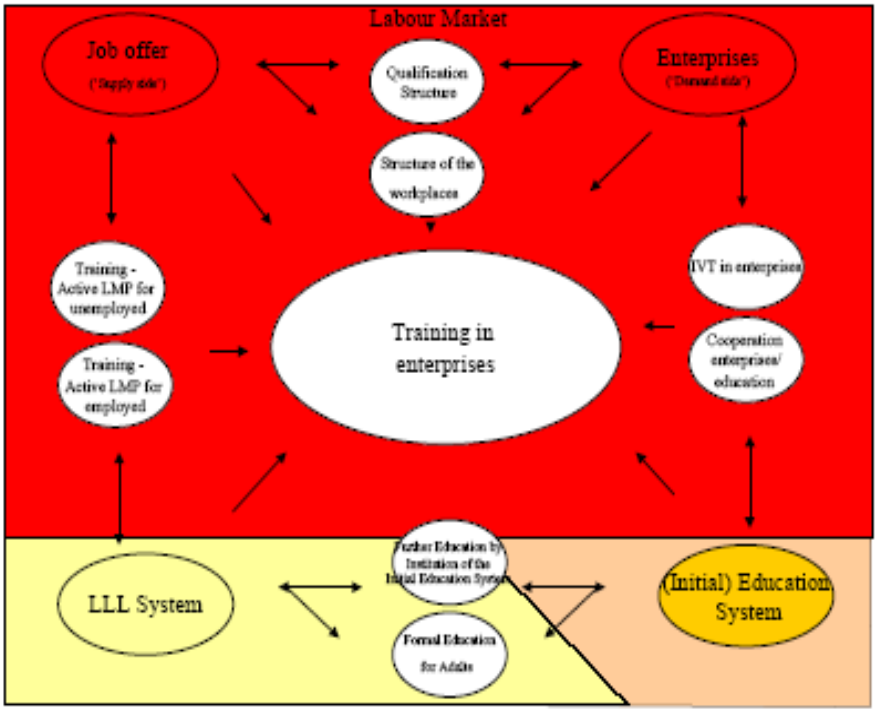
(d) certain general typologies of countries are defined, their institutions are approached as interrelated and congruent (e.g. typologies of welfare states; liberal versus coordinated market economies; welfare production regimes; national systems of skill formation, etc); as the main rationale behind these typologies is to indicate the fundamental differences between few types of countries, the commonality of type-specific features (differences between types) are usually overestimated, thus on the very bases of interrelatedness of institutions that form these few types, it

is very much in line with this approach to rely on some single dimension of some single type of institution to derive first particularity of related institutions and second, to suggest interrelated impact of the whole institutional packages on some outcome (in our case - participation in non-formal learning); in this case particularity of interrelation between labour market institutions and education system and their common impact on participation is of marginal importance.

The main dimensions used in comparative lifelong learning research cover usually labour market institutions, education system, welfare state system, lifelong learning system.

Markowitsch and (2007) map interrelations between the labour market, the education systems and the lifelong learning system (see Figure 3).

Figure 3. Interrelations between the labour market, the education system and the lifelong learning system



Three dimensions of **educational systems** are widely used in comparative analyses:

- *Stratification of education system***.** An important issue with respect to the role of education system as factor of participation in further training is: to what extent are initial and further education complements or substitutes (Wolbers 2005). It is about the degree of stratification of the education system, i.e. about the extent, to which general education and vocational training are separated into distinctive tracks according to ability levels (e.g. special education) or curricula (e.g. general versus vocational tracks), the age at which students are required to make this choice and the rigidity of the boundaries between different tracks. Comprehensive school systems with more emphasis on the general skills are defined as those of low stratification. In such kind of education systems specific skills are obtained

primarily after the initial education, on the job. Here the participation in non-formal education is considered to be kind of compensation for the deficiencies of initial education (Brunello 2001; Crouch *et al.* 1999). In a highly stratified education system, each education track is designed to specialise in awarding rather narrowly defined, occupationally relevant credentials. Here the specific skills are obtained in initial (vocational) education, and there is no need to compensate for lack of specific skills, i.e. to participate in non-formal education. Studies tend to show that in countries with these kinds of education systems, participation in non-formal education is lower than in countries with low stratified education.

- *Vocational specificity***.** The impact of the level of stratification (of the vocational orientation) of education system on participation in non-formal learning is also expected to vary over the life course of workers. Some researchers suggest, that the risk of skill-obsolence and hence demand for further education is higher in vocationally oriented education systems: as Bassanini *et al.* (2007) argue, vocational schools in stratified educational systems produce intensely specialised skills that become more rapidly obsolete in the presence of technical progress. Therefore, more training might be required to update existing skills. Contrary to that, Wolbers (2005) expect, that it is the on-the-job-training, characteristic to greater extent for the more comprehensive education systems, that runs the highest risk of skill-obsolence and hence such comprehensive systems should produce slower decline in participation over the life course (demand for) participation.

- *The proportion of the adult population achieved higher educational qualifications*. Complementarity between initial and further education might be also approached in more general terms: previous studies have shown that participation in further education and training (in both stratified and comprehensive education systems) depends on the level of education people have already attained (Booth 1991; Oosterbeek 1998; OECD 2000b). Further education occurs least often among those with the lowest level of initial education. Inequalities persist after basic schooling. Participation in adult education tends to follow closely the patterns of success in initial education. Additional training supplies cumulative advantages to individuals with higher levels of education (Gangl *et al*. 2003). Implication for macro level is that further education occurs least likely in countries/regions where the proportion of people with low qualifications is high. There might be two explanations for this pattern: education increases the demand for more education or, low educated adults are less motivated.

A second group of system dimensions describe features of **labour market organization** as well as labour market institutions. While according to human capital theory, low participation in non-formal education results from employer's reluctance to invest in employees portable skills (Becker 1975), empirical evidence has not provided much support for this suggestion. The most often offered explanations for inadequacy of human capital theory is the imperfection of labour market due to its segmentation and role of the labour market institutions. The central idea of theories of labour market segmentation is that labour market composed by 'noncompeting groups', boundaries between these groups are created by institutional rules; such rules are established by such labour market institutions and actors as collective agreements, trade unions, employers' associations, actions of government (Kerr 1954).

- *Trade unions.* The channels through which union collective bargaining can affect training are potentially quite complex, and it is not immediately obvious that unionism will be associated with positive or negative returns to training. Booth *et al.* (2003) provide an overview of the different channels through which unions can affect the provision of

continuing training. The implications of unionism for training depend, *inter alia*, on the degree of competition in the labour market and on whether the union effect on training is indirect (through the wage structure) or direct (through the negotiation of training). Explicit contracts such as union agreements directly represent workers' interests in protecting and improving the conditions of their employment in contrast to implicit arrangements that reflect employers' interests in retaining workers not bound by such formal arrangements (Elman and O'Rand 2002). The expansion of employees' learning opportunities is a leading negotiating objective for many unions. Unions also potentially contribute to equity goals in lifelong learning as a result of their concerns over unequal access to learning (Ryan 2002). Unions increasingly provide learning facilities and courses for their members. It means that unionism may have positive effect on participation in LLL. Another channel through which unions may influence training provision is wage compression (Booth *et al.* 2003). By reducing wage dispersion unions may distort workers' incentives to invest in training. This model would predict a negative impact of trade union participation on training incidence. However Bassanini *et al.* (2007) summarizing different theoretical models found that most of them are predicting that unionism will be associated with increased firm-financed transferable training. Markowitsch and Hefler (2007) argue that unions may influence the general orientation of social policy and the balance between high wage and low wage cultures but we cannot expect a direct impact of trade unions on training activities. They maintain that only an analysis of trade unions' actual policies could help to explain their impact on training policies.

- *Labour market flexibility.* The evidence on the relationship between firing costs, employment protection and training is also rather limited. Deregulation increases competition and can affect training in a number of ways. The higher competition induced by deregulation increases productivity by forcing firms to improve efficiency and to innovate. If innovation and skills are complements (Acemoglu 1997) firms have a higher incentive to train. On the other hand, the relative bargaining power of workers can fall, because of the higher risk of involuntary turnover and plant closure associated to more competition. Higher employment protection is increasing firing costs and discouraging involuntary separations. Several studies have indicated that countries with stronger employment protection tend to show higher participation in learning (Acemoglu and Pischke 2000; Brunello 2001). Bishop (1991) is one study in the area, which reports that the likelihood and amount of formal training are higher at firms where firing a worker is more difficult. Acemoglu and Pischke (1999) argue that there are complementarities between regulation regimes and training systems, and that reducing firing costs and increasing employment flexibility could reduce the incentives to train. Their evidence focuses mainly on Germany. Bassanini *et al.* (2007) have found that labour market flexibility has had mixed effects: while the diffusion of temporary work has been associated with a reduction of training incidence, the opposite has occurred with the slow but almost general reduction in the employment protection of regular labour. The main argument in favour of this suggestion is as follows: in countries with decreasing level of employment protection low firing costs enable firms to dismiss less able or less suitable employees. Firms end up with more homogeneous – in terms of skills, 'trainability' and work moral – labour force. At the same time, more competitive product markets force firms to improve efficiency, thus to innovate; and in turn, the innovations are possible only with the high-skilled labour force. Thus, in countries with lower level of employment protection compared with countries with higher level of employment protection, due to the higher demand for high-skilled workers and having more homogeneous (in terms of quality) labour force, firms have higher incentives to invest into training.

- *Qualificational versus organizational labour markets (Occupational versus internal labour markets).* Implications for LLL might also be derived from Maurice and others (1986) who introduced the differentiation between systems of 'organisational space' and 'qualificational space' and their linkage to the educational system. In a system of organisational space, education is academic or general in character with specific occupational skills learned on-the-job. By means of additional training individuals obtain the skills that are necessary in a given company to make internal upward moves. The intensity of additional training is expected to be high in a system of organisational space. In qualificational space education is closely tied to job requirements and more importance is placed on diploma requirements and certificates (Maurice *et al.* 1986). Access to skilled jobs is reserved for those workers who have the specific skills needed for these jobs. In qualificational space the education system produces workers with occupation-specific skills (in other words, vocational education dominates). The acquired skills are transferable across firms and are recognised by employers. Thus it would be reasonable to expect a higher degree of participation in non-formal education in countries where general education is prevailing, given the prevailing of organizational space in the labour market.
- *Collective bargaining.* Dieckhoff *et al.* (2007) expect that employers in systems where collective control over continuing training is high are more likely to offer standardized and transferable skills to their employees than in systems where collective control is low. In systems where employee representation is weak, companies would mainly invest in firm-specific continuing training. In systems with high collective control unions will negotiate the content of training to ensure that the training contains portable elements. Ok and Tergeist (2003) have found that in coordinated economies collective bargaining plays an important role in the provision of continuing training. In liberal regimes only very few collective agreements on continuing training exist and the role of works councils is negligible (Ok and Tergeist 2003).
- *Wage compression.* Concerning the direction of this effect, the literature contains two rival hypotheses. Reduced wage dispersion may undetermined workers' incentives to invest in training. In this scenario one would predict a negative correlation between wage compression and training incidence. On the other side wage compression may provide an incentive for employers to provide training for low-skilled workers in order to increase productivity in line with wage floors, while for high-skilled workers it may be due to the expectation on the part of employers that they will be more able to capture the returns to training where there are constraints on wage increases of skilled workers (in other words, if the increase in productivity after completing the training is greater than the wage increase) (Acemoglu and Pischke 1999). Empirical comparative analysis seems to indicate that compression has a positive effect on participation in training. Later research has hinted at the fact that this only holds at the bottom of the wage scale. Limiting wage differences at the top of the wage scale appear to have the opposite effect: at that level wage compression leads to a lower participation rate (Coulombe and Tremblay 2005).
- *Minimum wages.* Brunello (2001) finds that countries with lower minimum wages (relative to the average wage) tend to show higher incidence of training. Bassanini *et al.* (2007) argue that the introduction of a minimum wage acts as a type of wedge between wages and marginal productivity. Thus it can increase general training and induce employers to train their unskilled workers (Acemoglu and Pischke 2003). Markowitsch and Hefler (2007) maintain that the impact is indirect: minimum wage level influences greatly an economy's structure by limiting enterprises' possibilities for a low-wage, low productivity strategy and influences the likeliness of finding enterprises with a certain training culture.

A third group of institutional characteristics include features of **welfare state systems**.

- *Active labour market policy*. Active labour market programmes refer to a range of measures aimed at helping the unemployed to become reintegrated into the labour market. It has been may expected that investments in an active labour market policy in general, and in training measures in particular (Lassnigg 2005), will lead to increased participation. The condition, however, is that a sufficient number of jobs must be available to convince those who take part in training that participation will effectively result in employment (McGivney 2001).

- *Passive labour market measures and generosity of replacement incomes*. A disincentive effect is often ascribed to the generosity of replacement incomes. The 'dependency hypothesis' has it that, in countries where the welfare state is directed foremost to compensate welfare loss associated with losing employment, incapacity for work or early retirement, the incentive to take part in LLL is reduced. The competing 'human capital hypothesis', however, argues that increased replacement rates will lead to higher participation rates in lifelong learning. Increased levels of replacement income do offer people the opportunity to invest in looking for a decent job and to prevent their human capital from depreciation during unemployment spells (Atkinson and Micklewright 1991). The flexicurity model in the Scandinavian countries is based on this assumption: a sufficiently higher unemployment benefit supports people in a flexible labour market to make both voluntary and compulsory job transitions through participation in education and training. Empirical evidence for this hypothesis has been found in Desmedt *et al.* (2007).

3.2 Towards national Lifelong Learning systems?

In the following we will present characteristics that may contribute to increased participation in lifelong learning, such as the notion is being used (cf. European Commission 2001; OECD 2003; OECD 2005). Comparable quantitative and qualitative international indicators for these characteristics are however quite scarce. The 'European report on quality indicators of lifelong learning' (European Commission 2002, p. 62) assessed for a number of characteristics grouped under the denominators 'comprehensiveness' of the policy and 'coherence' of the policy (see Table 2). Table 2 copies the assessment table as presented in the report. The countries received an A (adequate), a P (partial) or an I (insufficient) assessment for a number of characteristics grouped under the denominators 'comprehensiveness' of the policy and 'coherence' of the policy. It should be noted that the assessment embraces policy strategy as well as concrete actions.

Table 2 The development of strategies to promote lifelong learning in the EU-15 in 2001

	Be	Dk	De	El	Es	Fr	Irl	It	Lu	Nl	Au	Pt	Fi n	Sw	Uk
Comprehensiveness															
Compulsory education	P	A	A	P	P	A	P	A	P	A	P	P	A	A	A
Public investment and funding of education	P	A	P	I	P	P	P	P	P	A	P	P	P	A	P
Supply of formal forms of learning	P	A	P	P	P	P	A	P	P	A	P	P	A	A	A
Supply of non-formal forms of learning + recognition prior learning	P	A	A	P	P	A	P	P	I	P	P	P	A	A	A
Focus on disadvantaged groups	P	P	P	A	I	P	P	I	P	P	P	P	A	A	P
Synthetic indicator comprehensiveness	1	3	2	2	1	2	2	1	1	2	1	1	4	4	3
Coherence															
System development: policy needs, planning, targets, implementation, monitoring	P	A	P	P	P	A	P	I	P	A	P	P	A	A	P
Partnerships: social partners, public authorities, learning providers, civil society	P	P	A	I	P	P	A	P	P	P	P	P	P	A	A
Facilitating aspects: advice & guidance services, flexibility, mobility	P	A	P	P	P	A	P	P	P	P	I	I	A	P	A
Synthetic indicator coherence	1	3	2	1	1	3	2	1	1	2	1	1	3	3	3

Source: European Commission, European report on quality indicators on lifelong learning (2002).

Using this assessment Groenez and Desmedt (2007) calculated the synthetic indicators for comprehensiveness and coherence. The synthetic indicators for comprehensiveness and coherence were calculated by summing up the number of 'A' assessments and add this sum to 1. In the calculation of the synthetic index for comprehensiveness, the first two indicators were not included because these are used as stand alone parameters in the analysis.

- *The comprehensiveness indicator* reflects the extent and diversity of the supply, the visibility and recognition of prior learning and the attention given to disadvantaged groups. The importance of an extensive supply of adult education for the participation rate has been demonstrated empirically for the US (Jung and Cervero 2002). The extent of the non-formal supply of learning activities is of particular importance for counteracting the unequal participation of disadvantaged groups (McGivney 2001). It is further expected that countries with a well-developed national qualification structure and an associated system for the recognition of prior learning (RPL) will also display a high participation rate in lifelong learning. First and foremost these initiatives ensure that the return on learning is made visible, not only for the participants, but also for employers. Furthermore, they also ensure that all learning is validated and transferable, so as to align the entire spectrum of lifelong learning and avoid dead-end learning pathways. However, McGivney (2001) warns that too strong an emphasis on accreditation may also deter adults who rather opt to learn in order to foster their personal development. Among disadvantaged groups, too, this may lead to a fear of failure and thus add another obstacle. In order to win adults over - especially adults from disadvantaged groups - information must be actively distributed regarding both the supply and the expected benefits of participation.
- *The policy coherence indicator* entails the quality of the policy process, the development of partnerships both in policy and in the field, and some parameters facilitating participation. A large and diverse supply must also go hand in hand with sufficient transparency so that potential students can find their way around it (McGivney 2001). Guidance, advice and supporting services can play an important part in matching supply and demand. Attention should be paid to provision in terms of flexibility and geographical distribution. A flexible supply (for example, through a modular system, flexible hours, ICT and distance learning)

allows adults to learn at their own pace and may consequently reduce the major obstacle to participation, viz. lack of time. A geographically widespread provision may reduce the mobility restrictions by ensuring that the supply is available within a reasonable distance (McGivney 2001).

Groenez and Desmedt (2007) have found that the quality of the policy process in the area of lifelong learning, as regards both coherence and comprehensiveness, has a positive impact on the relative participation rate among the low-skilled as against the high-skilled reducing inequalities in participation.

Markowitsch and Hefler (2007) have combined an index with seven dimensions, covering participation in non-occupational training, public support for CVT in enterprises, training provision for unemployed, participation of adults in formal education, state support for general adult education and participation in occupational training of individuals (see Table 3). The countries were rated on each of these dimensions (1-3), the sum was divided by the number of dimensions. They found that the training activity of enterprises fits into the picture of countries' development of adult education.

Table 3. Use of indicators for construction of index characterizing lifelong learning 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

Source: Markowitsch and Hefler, 2007, p. 73.

Comparative research has confirmed the importance of the institutional dimensions described above. Several dimensions are under-represented in current research but are recognized by researchers as important.

Broader economic and social context

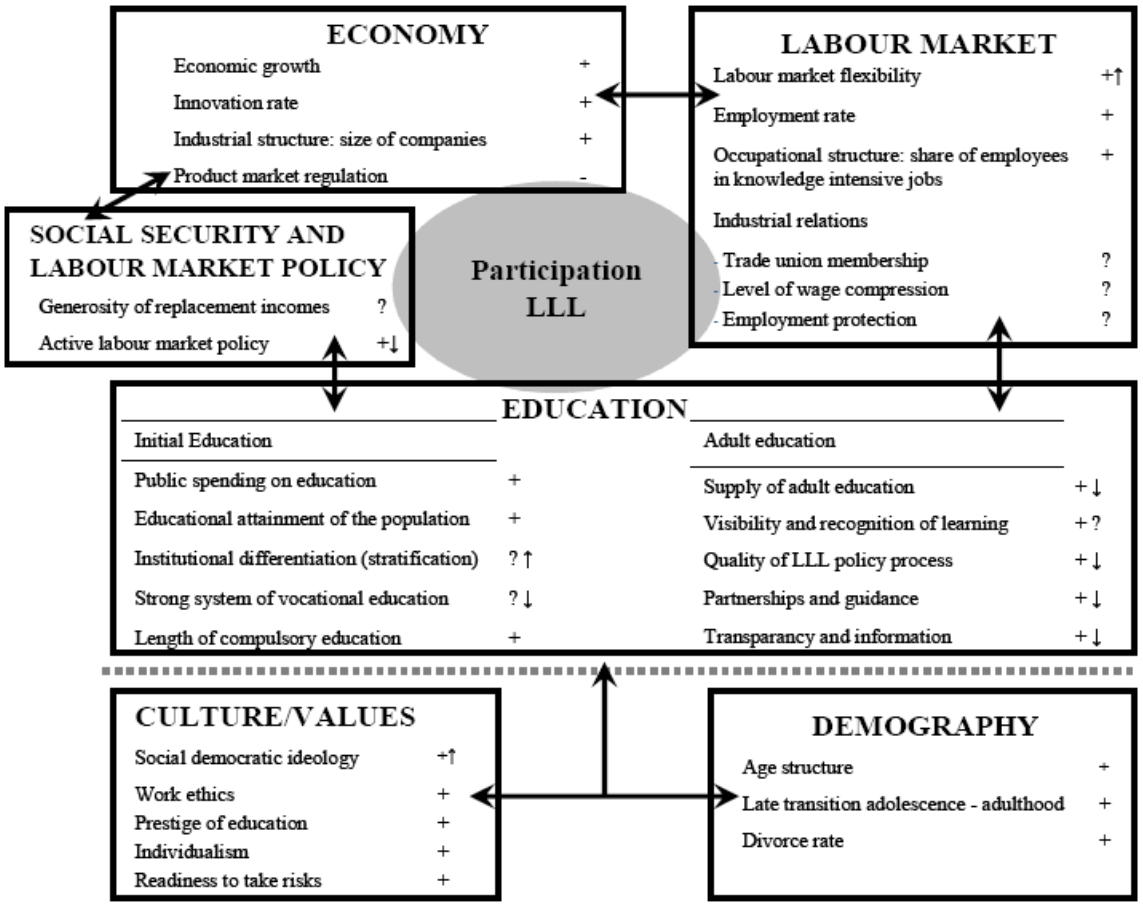
- *Broader economic environment*. This include the stage of economic development, the innovation level, the investments in innovative activities etc, At the macro-level, higher innovation rates in the economy are associated with higher levels of participation rate in lifelong learning (Bassanini *et al*. 2005). Moreover, there is a positive relationship between public investment in innovative activities (measured as the public investment in R&D and spending on ICT as a percentage of GDP) and participation in lifelong learning (Bassanini *et al*. 2007). Markowitsch and Hefler (2007) indicate that the indicator GDP per inhabitant as well as the proportion of employees working in knowledge intensive industries and services express the proportion between productive, competitive enterprises and low-productive enterprises with a comparatively high risk of economic failure. These poorly performing enterprises cannot invest in training for economic reasons. It means that these indicators express different proportion between enterprises excluded from using training and all other enterprises, where training is an option.
- *Occupational structure.* Korpi and Tåhlin (2008) have found that the characteristics of jobs largely determine the likelihood of training, implying that the driving factor is employers' training needs. On macro level it means that the distribution of occupations (or workplaces with different requirements) have higher impact on incidence of training compared with the available qualification of the workforce (see Markowitsch and Hefler 2007).
- *Skill formation system*. According to the framework developed by Estevez-Abe *et al.* (2001) within the 'variety of capitalisms' approach, the creation of incentives for firms and workers to invest in certain type of skills is the key mechanism underlying the logics of skill formation regimes. Just as in human capital theory (Becker 1975), here the important distinction is made between the development of general (thus portable) versus specific (non-portable) skills. There are two ideal types of political economies – coordinated market economy (CME) and liberal market economy (LME) that differ in the ways they protect investments into specific skills. In CME firms pursue product market strategies which depend heavily on firm- and industry-specific skills. Firms are prepared to invest in training because they can expect that workers remain in the firm for a sufficient length of time. It is the logic of *specific skills regime* as characteristic for (CME). For another type of market economy - liberal market economy (LME) - general skills regime logic is deemed to be characteristic. The more fluid markets of LMEs provide economic actors with greater opportunities to move their resources around in search of higher returns, encouraging them to acquire exchangeable assets, general skills being one of them. The institutional framework of liberal market economies - pure employment, unemployment as well as wage protection - does not create incentive neither for firms nor for employees to invest into the industry - or company-specific skills. Individual and firm investments in training are therefore small. It is the case of *general* skills regime.
- *Cultural factors*. Some authors suggest that variations between countries as regards participation in LLL may also be associated with differences in values and attitudes. In

order to explain the success of the Scandinavian countries reference is, for example, readily made to the combination of a socio-democratic ideology stressing the principle of equality and a Protestant work ethic (Antikainen 2006). According to the latter, work is an obligation and training is a way in order to perform that duty better. The question remains, however, whether it will be possible to separate the impact of value patterns from the other system characteristics.

Figure 4 below presents and groups these institutional and structural characteristics in 6 subsystems labelled education, economy, labour market, welfare state, family and culture[3]. The plusses (+) and minuses (-) represent the expected effect of each system characteristic on the overall participation rate in lifelong learning. A question mark (?) is added when the literature mentions contradictory expectations regarding the direction of the association. While hypotheses as regards the impact of various system characteristics on the overall participation rate are quite **abundant**, the number of hypotheses regarding the impact of various system characteristics on social inequalities in participation is quite scarce. For those few system characteristics a second symbol is added: ↑ where the literature indicates that the system characteristic increases inequality in participation, ↓ where we can expect inequality in participation to be reduced, and a question mark where the literature gives contradictory indications.

[3] This chapter is based on Groenez and Desmedt 2007.

Figure 4. Institutional and structural characteristics having impact on participation in LLL



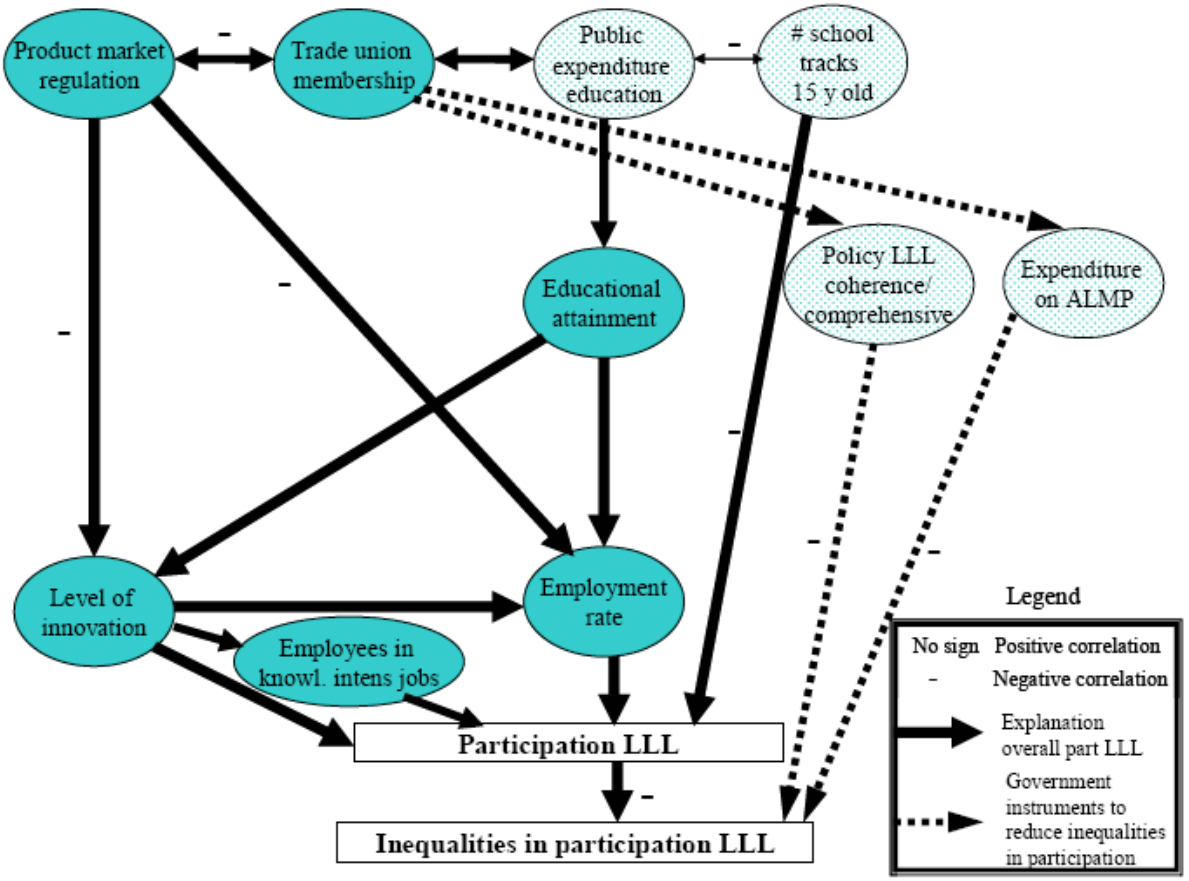
Source: Groenez and Desmedt 2007.

Figure 5 below illustrates the associations between the institutional and structural characteristics for the country-level variations in participation in lifelong learning as well as in inequalities in participation among various social groups found by Groenez and Desmedt (2007). They concluded that two parameters emerge as the most important parameters of the overall participation rate. Both the *employment rate* and *the innovation rate* in the economy have a positive impact. Not only does a considerable training supply generate from the workplace, at the same time a high employment rate also inspires the confidence that learning will effectively lead to a (better) job. The influence of innovation on participation in lifelong learning is both direct and indirect, as next to creating a demand for learning, innovation partly operates by stimulating the employment rate.

A third system characteristic which has a direct influence on participation in lifelong learning is the *institutional differentiation* in initial education. More comprehensive education systems appear to generate higher direct participation in lifelong learning. This supports the hypothesis that adults emerging from an egalitarian system of this kind have acquired more general learning skills, have been less confronted with selection and failure, and have thus developed a more positive attitude towards lifelong learning. Also the hypothesis that participation in lifelong learning is a form of compensation for a lack of specialisation in initial education may be valid.

Finally, *social dialogue* (between social partners) *and social concertation* (with the government) have a positive impact on participation in LLL, both indirect by influencing the employment and innovation rate and direct.

Figure 5. Explanatory model for variations between countries with regards to participation in lifelong learning and inequalities in participation among various social groups



Source: Groenez and Desmedt 2007.

Helemäe, Roosmaa and Saar (2007) have found that the list of important macro level factors and the way they influence participation in non formal learning differs between old and new European Union member states. Suggested by theory, institutional factors matter first of all for old EU member states. The predictive power of these factors for new member states is rather low and varies significantly by countries. They indicate that for old EU member states three types of institutional systems with different opportunities for participation in non-formal education might be distinguished:

- ***High rate of participation*** had been achieved in the UK and Scandinavian countries – countries with the flexible labour markets (this flexibility is achieved differently: due to low employment protection in the UK, while due medium employment protection and high unemployment protection in Scandinavian countries); in these countries comprehensive (thus flexible) education system provide flexible labour markets with labour force that is educated enough to be able to update skills for reasonable costs;
- ***Low rate of participation*** in Southern European countries; here due to strong employment protection the labour markets are strongly segmented into insiders and outsiders; labour force is highly differentiated according to the level of education, while the significant majority of working-age population had not achieved upper secondary education; education

system is quite stratified; for this institutional system might be applied the suggestion that employers are rather reluctant to invest into (due to high firing costs) heterogeneous labour force;

- countries of continental Europe and Ireland are somewhere 'in between': they are characterized by the ***medium rate of participation*** in non-formal education as well as by institutional system with medium-level barriers both in labour market and education system.

This logic – more flexibility in the labour market and education system hand-in-hand with higher participation in non-formal education – does not hold true for the new member states.

Markowitsch and Hefler (2007) maintain that the interaction between single structural and institutional indicators and training in enterprises may be overestimated. They conclude that "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." (Markowitsch and Hefler 2007, p. 60).

3.3 Preliminary typologies

The typology of countries is the most arbitrary feature of most research on lifelong learning systems. One issue concerns the multi-dimensional nature of many dimensions. Another issue is the heterogeneity of systems. The dimension approach assumes that the system can be placed at a single point along each dimension, whereas actual systems are very diverse. This section discusses how dimensions are combined to produce different typologies.

3.3.1 Typology of education and training systems

Green (1999) working from the educationalist perspective stresses the modes of articulation between central governments, education systems, labour markets and firms, as the basis of typology.

Table 4. Typology of education and training systems

	Japanese model	German model	French model	Swedish model	UK model
Countries	Japan, South Korea, Taiwan, Singapore	Germany, Austria, Switzerland, the Netherlands	France, the `Latin rim' states.	Sweden, other Nordic countries	England, Wales
The role of the state	Government of the market providing investment and strategic leadership	state intervention to co-ordinate the roles of the different partners and of labour market regulation	the state centred concepts of political membership	the social democratic state, which also engaged in active labour market measures for unemployed and redeployed adults	

	Japanese model	German model	French model	Swedish model	UK model
Management-labour relations	paternalistic form of organizations; lifetime employment, seniority wages, compliant single company unions	Large sectoral unions; co-operation and compromise; relatively high levels of `trust'; strong traditions of social partnership	widespread sectoral agreements between unions and employers		
Labour market structure	Internal labour market	Occupational labour market	Internal labour market	Internal labour market	Mixture of both occupational and internal labour markets
Characteristic features of skills formation	Cultivation of the social attitudes and personal skills which are conducive to both to cohesive and orderly citizenship and to disciplined and cooperative labour; the cultivation of specific technical skills is less important; in-company training	Standards-based occupational qualifications act as the crucial exchange mechanism	Externally assessed, state-validated certificates play a quite important role	strong traditions of liberal adult education	
Education and training system: general organization and principles	generally highly centralized; strong emphasis on the development of group cohesion and conformism	ETS is organized on a regional basis	strong central control; emphasis on civic education	substantially devolution of control during the last decade to the local or municipal levels; strong emphasis one quality and social solidarism	limit state control in education: in recent years introducing competitive, quasi-market relations into education and training
Compulsory education	comprehensive, unstreamed schools	different tracks leading, usually, to different occupational destinations	comprehensive systems of compulsory schooling	Comprehensive schools	
Secondary schools	General secondary schools predominate over vocational secondary schools	Vocational secondary schools predominate; Dual System of apprentice training	school-based systems of upper secondary education with only a residual apprentice system	predominantly school-based with the dominant institution being the comprehensive secondary school; the apprenticeship forms an important part in Denmark but is essentially school-led	a `mixed system' compromising both school-based and work-based elements: more differentiated than the more integrated upper secondary systems

	Japanese model	German model	French model	Swedish model	UK model
Relationships between firms and ETS	Standards-based qualifications are not important; recruitment is based on recommendations, company assessment tests and the reputatioin of the institution	strong company commitment to training	qualifications play important role in job recruitment and promotion and pay levels; many firms are unable to deliver extensive in company training.		

Source: Green 1999.

3.3.2 Typology of institutional framework of knowledge and learning

Alice Lam (2000) uses the same distinction between occupational and internal labour markets as Green (1999). She has developed a four-fold typology to explain the links between knowledge types, organizational forms and societal institutions. It offers an ambitious attempt to capture links between the education and training system, labour market structures and characteristics of forms.

Table 5. Typology of institutional framework of knowledge and learning

	Occupational labour market	**Internal labour market**
Narrow, elitist education and training system	**Professional model** Narrow approach to learning and inhibits innovation (Anglo-American countries with norms of professional specialization and elitism)	**Bureaucratic model** A superficial approach to learning and has little capacity to innovate (Economies competing through prices and standardization)
Broad. egalitarian education and training system	**Occupational community model** Multiple learning opportunities which amplifies the learning and innovative capability of the firm (Italian industrial districts, Silicon Valley: high inter-firm mobility in regions)	**Organizational community model** Learning community is within the organizational bounded within the firm-based ILM. This inhibits radical innovation (Japanese firms with collective, non-standardised knowledge base)

Source: Lam 2000.

3.3.3 Varieties of capitalism approach

Recently the trend has been towards comprehensive approaches that view institutional contexts as multi-dimensional and highly interactive – institutional systems are interdependent and they complement one another, therefore they are best understood as country-specific institutional 'packages' (Blossfeld 2003). A 'varieties of welfare capitalism' approach seeks out 'institutional complementarities' between different production regimes, industrial relations, education institutions and social protection systems (Hall and Soskice 2001). Rather than grouping countries under a single regime, it seeks to develop multi-dimensional models of institutional structures that are country-specific. According to this, educational system and labour market are a part of country-specific institutional package and therefore individual educational opportunities are shaped by reciprocal actions between two institutions mentioned.

In liberal market economies (LME), firms coordinate their activities primarily via hierarchies and competitive market arrangements. In coordinated market economies (CME), firms depend more heavily on non-market relationships to coordinate their endeavours with other actors and to construct their core competences. In contrast to LMEs, where the equilibrium outcomes of firm behaviour are usually given by demand and supply conditions in competitive markets, the equilibria on which firms coordinate in CME are most often the result of strategic interaction among firms and other actors.

According to varieties of capitalism approach important institutional settings that contribute to different mechanisms of functioning in CMEs versus LMEs are financial systems, systems of industrial relations, education and training systems and inter-company relations. Specific features of these institutions have certain implications for type of innovation firms prefer and type of skills they rely on. In this literature industrial relations are one of the important spheres in which firms must develop relationships to resolve coordination problems central to their competence (Hall and Soskice 2001). In the sphere of industrial relations wage and productivity levels that condition the success of the firm and rates of unemployment or inflation in the economy as a whole are at stake. Vocational training and education is another important sphere of coordination for firms. Here firms face the problem of securing a workforce with suitable skills, while workers face the problem of deciding how much to invest in what skills. On the outcomes of this coordination problem turns not only the fortunes of individual companies and workers but the skill levels and competitiveness of the overall economy.

It had been argued, that such kind of institutional complementarities helps to explain differences between LME and CME in the *level* and *composition* of skills of their workforce as well as differences in market strategies of their firms. Two alternative roads to competitiveness have been followed in Europe: 'low road' based on a low-wage, low-skill, low-involvement, and low-quality equilibrium and 'high road' entailing high wages, high skill, high cooperation and high product quality (Soskice 1989; Berger and Dore 1996; Crouch and Streeck 1997; Regini 2000). Economically developed countries identified by varieties of capitalism approach as coordinated market economies (CME) (Hall and Soskice 2001) might be also characterised as 'high road' competition economies, while those identified as liberal market economies (LME) rather follow 'low road' of competition.

To keep on high quality road certain protection to investments into asset-specific skills is needed. Three different types of such protection have been distinguished: employment protection, unemployment protection and wage protection (Estevez-Abe *et al.* 2001). For firms pursuing

product market strategies which depend heavily on firm- and industry-specific skills, promise of employment and unemployment security is of great importance as it is an incentive for workers to invest in (firm- and/or industry) specific skills. The more successful these firms are, the greater their demand for specific skills, the greater need for (employment, unemployment and wage) protection. Firms are prepared to invest in training because they can expect that workers remain in the firm for a sufficient length of time. It is the logic of *specific skills equilibrium* in CME.

The more fluid markets of LMEs provide economic actors with greater opportunities to move their resources around in search of higher returns, encouraging them to acquire exchangeable assets, such as general skills of multi-purpose technologies. The institutional framework of liberal market economies is considered to be highly supportive of radical innovation, which entails substantial shifts in product lines, the development of entirely new goods, or major changes to the production process (Hall and Soskice 2001: 38-40).

Labour markets with few restrictions on layoffs mean that companies interested in developing an entirely new product line can hire in personnel with the requisite expertise, knowing they can release them if the project proves unprofitable. Fluid markets and short job tenures make it rational for employees to concentrate more heavily on the development of general skills rather than the industry- or company-specific skills. Individual and firm investments in training are therefore small. There is no quality standardization and there are no formal degrees and certificates, which are accepted across firms.

In case of general skills equilibrium (most firms are pursuing general skills strategies, while there is weak employment and unemployment protection) as in LME, higher protection would undermine workers' incentives to invest in these skills, without significantly increasing their appropriation of specific skills (because there is little demand for such skills). Accordingly in the industrial relations arena, firms in LME generally rely heavily on the market relationship between an individual worker and employer to organize relations with their labour force. Top management normally has unilateral control over the firm, including substantial freedom to hire and fire.

Unemployment protection, as protection from income reduction due to unemployment, is deemed to reduce uncertainty about income throughout one's career and is therefore an important incentive for investment into industry-specific skills (Estevez-Abe *et al*. 2001). It is the arena where welfare state policy is of a great importance for formation of skills and their renewal as a component of lifelong learning. There appears to be correspondence between types of political economies and welfare states. While social-policy regimes that accompany coordinated market economies are quite varied, virtually all liberal market economies are accompanied by 'liberal' welfare states, whose emphasis on means-testing and low levels of benefits reinforce the fluid labour markets that firms use to manage their relations with labour (Esping-Andersen 1990). In the 'varieties of capitalism literature' the set of product market strategies, employee skill trajectories, and social, economic and political institutions that support them, are referred to as welfare production regimes; the welfare state can also be understood as a complement within national production systems (Hall and Soskice 2001).

Two distinct welfare production regimes have been distinguished: one combining high protection on at least one of two (employment or unemployment) protection dimensions with firm- and/or industry-specific skills, represented by the continental European countries and one combining weak employment and unemployment protection with a general skills profile, represented by the Anglo-Saxon countries and Ireland (Estevez-Abe *et al.* 2001). In the latter countries there is high demand for semi-skilled workers with general skills; general skills are usually obtained in the formal

educational system; students who are academically strong do their best to get as high level of education as possible, while student who are not academically strong, are offered relatively few opportunities for improving their labour market value outside of the school system and as a result, there are fewer incentives for them to work hard inside the school system (Estevez-Abe *et al.* 2001). Hence, there are fewer incentives to both employers and workers to invest into intensive further training in LME. To put it another way the total demand for work-related lifelong learning in these countries should be more differentiated (shifted rather to low skills but to very high skills as well) compared to CME where most firms pursue specific skills equilibria

As in the long run both LME and CME had proved their sustainability, the same might be expected in relation to general versus specific skills equilibrium. 'Generated by the globalizing economy' the demand for lifelong learning is supposed to be filtered by the country-specific institutional package. This generates different challenges and allows different space for change of education systems. This embeddedness of educational institutions into the wider institutional context has certain implications for the learning career.

Table 6. Characteristics of liberal market economy and coordinated market economy

	Liberal market economy	Coordinated market economy	
Economic governance	Limited business coordination, antitrust laws	Strong business associations, inter-company networks	
Production system	Low-skill production Mass products Numeric flexibilisation	High-skill production High-quality products Flexible specialization	
Industrial relations	Decentralised bargaing Contentious workplace relations Low employment protection leads to a high degree of job mobility. Trade unions and employer associations are weak; low-cost hiring and firing	Coordinated bargaing Statutory worker representation Medium to high employment protection offer the employees more certainty regarding the return on an investment in specific competences. Strong trade unions and employer associations; employee cooperation in firms and wage moderation	
Competence profile	General competences Initially employers invest little in human capital	Industry and/or company-specific competences Initially employers invest in human capital	
Training and employment	General education Short tenure, high turnover and inter-firm mobility	Vocational training Long tenure, low turnover and intra-firm mobility	
Welfare state	Liberal	Social democratic	Conservative
Labour market policies	Minimal income protection	Generous income protection Strongly developed active labour market policy	Good income protection Less developed active labour market policy

Source: Authors' summary based on Hall and Soskice 2001; Estevez-Abe *et al.* 2001; Esping-Andersen 1990, 1999; Ebbinghaus and Manow 2001.

3.3.4 Socio-economic models

More recently, following the expansion of the EU, challenges have arisen in terms of incorporating new member states into existing social welfare models. Aiginger and Guger (2006), drawing on the work of Esping-Andersen and others, look at the differences between the European welfare model and the new model now emerging in much of Europe, most specifically in the successful Scandinavian countries. They argue that the new European model, characterised by welfare and sustainability on the one hand and efficiency and economic incentives on the other, differs from the old welfare state model and from the US model, even though Anglo-Saxon countries are trying to combine some elements of both. Large continental countries (Italy, Germany and France) have been less successful than the Nordic countries in developing this new model. They also argue that the education system and institutions of the knowledge economy are playing an increasingly important role in the new European socioeconomic model, as well as the traditional components of welfare societies such as the social security and taxation system. They suggest that there are three key dimensions, responsibility, regulation and redistribution, which characterise the European socioeconomic model and which are reflected in different ways in a variety of European countries. **Responsibility** refers to the activities which the state undertakes on behalf of its citizens, including providing welfare, health and social care services, housing, education and so on. In some European countries, individuals are expected to accept a greater degree of responsibility for the procurement of social support than in others. **Regulation** refers to the way in which labour relations are institutionalised and the labour market is regulated, as well as other administrative systems which control social relations. **Redistribution** refers to the way in which financial support is transferred to those in need and the extent to which social services are available to all. The taxation system is clearly of great importance in determining the extent and nature of distribution which occurs within a society. Overall, the European socio-economic model, as interpreted in different nation states, influences and is shaped by every aspect of life, including employment, production, productivity, cultural institutions and behaviour, learning and the creation and diffusion of knowledge.

The typology of countries suggested by Aiginger and Guger draws heavily on the Esping-Anderson model, and, despite emphasising the importance of education and lifelong learning, strongly reflects traditional economic indicators such as annual growth, GDP pre capita, employment rate and unemployment rate. It includes the following groupings:

Nordic Model (e.g. Denmark, Finland, Netherlands, Sweden, Norway)
Continental Model (e.g. Germany, France, Italy, Belgium, Austria)
Anglo-Saxon Model (e.g. Ireland, United Kingdom)
Mediterranean Model (e.g. Greece, Portugal, Spain)
Catching-up Model (e.g. Czech Republic, Hungary)

The **Nordic model** places a great deal of emphasis on redistribution, with social benefits financed by high taxation. Social partnership is also stressed, with employers, trade unions and

educationists/trainers contributing to the sustenance of a knowledge society. The model is characterised by active labour market policies and high employment rates.

The **continental model** emphasises employment as the basis of social transfers, but places much less emphasis on including those who are out with the labour market or the education system, with little emphasis on redistribution. Industrial relations and wage-bargaining are centralised and education systems are relatively static and hierarchical.

The **Anglo-Saxon model** is economically and socially liberal, emphasising the importance of individuals adopting responsibility for their own education, training and social welfare. Social transfers are smaller, more targeted and means tested. There is less regulation of the labour market and freedom of movement within the education system.

Within the **Mediterranean model** social transfers are small and the family takes a major responsibility for providing support and care to its members. Employment rates, specifically those of women, are low.

The **catching-up model** is characterised by de-regulated labour markets and low taxes on individuals and companies. New EU member states are relatively much poorer than old member states, and whilst the old socialist forms of social support have disappeared or diminished, new forms of welfare such as those in the Scandinavian countries have not as yet emerged. Key features of the catching-up model have yet to be elaborated, and there is clearly a need to investigate existing and emerging differences between these countries.

3.3.5 Different typologies of skill formation systems

Ashton, Sung and Turbin (2000) assume that the relationship central to an understanding of the process of skill formation are those between the state, in the form of the political elite and the apparatus of state, the education and training systems which deliver skills, capital in the form of employers through which the demand for skills arise, and workers in the form of employees and their organizations which influence the supply of skills. These provide the basic groups which, in specific cultural contexts, form the institutions through which skills are formed. They distinguish between four models: the market model, the corporatist model, the developmental state model and the neo-market model.

Table 7. Typology of skill formation systems

	Market model	Corporatist model	Developmental state model	Neo-market model
Countries	The UK, USA, Canada etc.	Germany, Austria, Switzerland, Denmark etc	Japan, Singapore, South Korea	Chile, Mexico, Brazil
Key societal characteristics	Large social inequalities	Low degree of inequality	Economic security provided by the family, relatively egalitarian distribution of income	Large social inequalities

Production system	Low value-added industries with a few higher value-added industries	High value-added industries	Mostly low value-added industries; more recently the shift in direction of higher value-added forms of production	Low value-added industries with a few higher value-added industries associated with foreign capital
Management-labour relations	The dominance of capital; only the professions sustained a strong control over training and entry to the occupation	Strong labour movement; strong control over training; trust between capital and labour	Unions remain defensive and focused almost exclusively on wage bargaining	A relatively strong labour organizations; increasing power of capital relative to labour
Form of interaction between the state and market	A relatively high degree of autonomy in relations to the state	The state is more heavily involved with both employers and unions	An important role of the state in relation to labour	The privatization of the major industries reduced the power of the state
Main principles of skill formation	Training is seen as the responsibility of the employer or the individual	Governments, with support from labour have encouraged the growth of high levels of initial training	Leading role of the state	The state has relinquished control over the delivery of training to the market
Skill formation system	In-company training	Use of ETS to provide the appropriate skills	ES and training controlled by the state	Foreign capital, private providers
Vocational training system	Support the immediate needs of employers	Stronger impact on the employer's demand for skills, creating pressures on employers to sustain higher value-added forms of production	Different	Support the immediate needs of employers
Coordination of the supply and demand	Through the market, slow	Agreements between the state, capital and labour; a 'tighter fit' between the demand and supply	State	Market
The role of the state	Training of the unemployed, maintaining the employability of marginal workers operating in low cost forms of production	Beyond the provision of training for unemployed	Upgrading the skills of the employed	Training of the unemployed, maintaining the employability of marginal workers operating in low cost forms of production

Source: Ashton, Sung and Turbin 2000.

Brown, Green and Lauder (2001) provide a comparative study of skill formation systems across five countries in the world—Germany, the United Kingdom, Japan, Singapore, and to a lesser extent, South Korea. They argue that skill formation and economic performance are socially constructed and experienced within social institutions such as schools, offices and factories. The relationship between skill formation and economic performance can be organised in highly divergent ways, shaped largely by the very different national contexts in each case study—which are based on culture, history, politics and social mores. The typology is derived theoretically from the differing forms of interaction and interlocking between: a nation's: (i) labour market structure; (ii) its education and training system; (iii) its key social and cultural characteristics; and lastly (iv), the form of interaction between the state and market in each national context. The four-part typology has the following ideal-type characteristics:

Table 8. Types of high skill societies

	The High Skills Society Model	The High Skills Manufacturing Model	The Developmental High Skills Model	The Low Skills/High Skills Model
Countries	Germany	Japan	Singapore	UK
Key characteristics: 1. Labour market structure	Strong Occupational Labour Market —close fit between ET and employment	Strong Internal Labour market—lifelong employment; rewards to seniority	State 'guided' labour market—state intervenes strongly at coordination of skilled labour	Flexible labour market; employment insecurity; casualisation; strong employer prerogative to 'hire and fire'
2. Education and Training System	Dual system of general education and occupational training; smooth transition from education to work	Strong underpinning general education with internal enterprise-based on-the-job training	Massive state expansion of general education; Strong state intervention in training through to manpower planning and vocational streaming to meet skill needs	An underperforming general education system, little state or enterprise-driven training
3. Key societal characteristics	High degree of social inclusion; income equality and trust	High degree of social inclusion; social conformism and strong work ethics, significant inequalities with respect to women workers and SME sector	Strong socialization; compliant workforce; significant inequalities with respect to Malay underclass, women workers and SME sector	Strong polarization of skill and income-low skill and high skill sectors; strong emphasis on 'individual choice' in ET and employment; low trust
4. Form of interaction between the state and market	Social consensus model; strong determination by stakeholders of state-market relations Stakeholder capitalism	Strong state regulation of market Stakeholder capitalism	Conscious state intervention in market relations The 'developmental' state	Minimal state action; Market is the dominant regulatory force Stakeholder capitalism

Source: Brown, Green and Lauder 2001.

3.3.6 Typology of models of lifelong learning

In contrast to traditional political economy approaches which mainly present dualistic theories (Anglo Saxon/neo-liberal vs. Social Market Models) Green (Green 2006) identifies at least three major models roughly corresponding to geographical/cultural regions.

- Neo-liberal model (Anglo-Saxon: Ireland, UK)
- Social market model (Core-European: Austria, Belgium, France, Germany)
- Social democratic model (Nordic countries: Denmark, Finland, Norway, Sweden)

He shows that this typology which is closely related to (Esping-Andersen 1990) differentiation in

- Liberal Anglo-Saxon Countries,
- corporatist Christian Democratic Countries (of northern Europe), and
- Social Democratic Scandinavian Countries

can be correlated with the exception of France to Lifelong Learning systems traditionally seen by comparative analysts and which comes closer to the idea of 'families of nations':

- France and the Mediterranean states
- German Speaking countries (and countries proximate to Germany)
- Nordic Countries
- English Speaking countries

Table 9. Typology of lifelong learning systems

		France and Mediterranean states	The German-speaking countries	The English-speaking countries	The Nordic countries
Education system	Centralization	The most centralized	Regional basis	Decentralized, high level of school autonomy	Local level
	Primary, basic and secondary schools	Comprehensive	Selective secondary schools	Formally comprehensive, a high degree of tracking in secondary schools	Compulsory school system with mixed ability teaching, neighbourhood basis of school admission
	Apprenticeship system	Residual	Strong		
	Adult education and training	Less developed, participation comparatively low		Relatively widespread, highly uneven, makes excluded workers mode employable	Prevalent, often funded by the state
	Diplomas	State controlled	More specialization	High level of specialization, early specialization	The most distinctive set of institutional arrangements
Skill formation	Level of skills	Aggregate levels of skills	Moderate aggregate level of skills		High aggregate levels of skills
	Skills polarization	Rather narrow distribution	High level: skills inequality		Narrow distribution

Source: Green 2006.

The weakness of Green's approach is apparent when it comes to Southern European countries which he only occasionally refers to and which he does not include into the three models. The same is true for the new member states and acceding countries. The strength of the article lies in the argumentation of LLL systems, which is not part of the other typologies.

3.3.7 Typology of countries based on training in enterprises

In Markowitsch's and Hefler's (2007) work on the CVTS data trying to explain difference between countries in training in enterprises, authors in a way tried to stress this historical-political dimension in the labelling of socio-economic models and we came up with at least seven groups (see Table 7 and Figure 4).

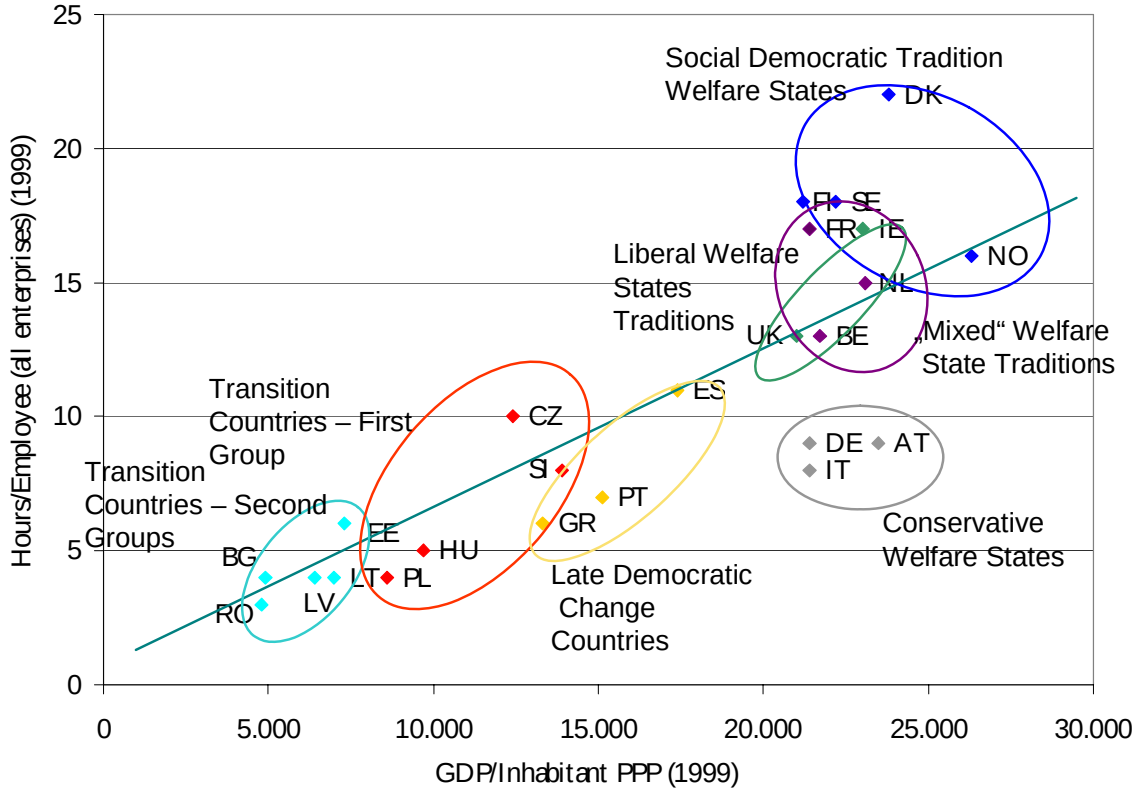
Table 10. Classification of countries

Group	Countries
Strong Social Democratic Tradition Welfare State	DK, FI, SE, NO,
Liberal Welfare State Countries	IE , UK,
„Mixed" Welfare State Regime Countries	BE, FR, LU , NL
Conservative Welfare State Countries	De, It, At
Late Democratic Transition Countries	GR, ES, PT
Post-Socialist Countries – First Group	CZ, HU, PL, SI
Post-Socialist Countries – Second Group	EE, LV, LT , BG , RO

The core ideas of their approach towards an explanatory framework are

- to take the relative autonomy of companies to adopt different training cultures (reactive versus expansive) into consideration;
- to investigate reasons deploring a more or less substantial part of enterprises of the opportunity to engage seriously in training;
- to investigate institutional packages on the country level and their relative importance for the development of training cultures in enterprises.

Figure 6. Correlation of GDP per inhabitant in 1999 and average hours of training per employee (all enterprises) 1999 – Markers for seven groups of countries



(Source: Markowitsch and Hefler 2007.)

The additional culture-geographical dimension is self-evident. As this is done with very old data (ref. Year 1999) it is also evident that some of these will have made significant changes. E.g. we can expect a further differentiation of the group late post socialist transition countries into the 'fast developing new member states and Baltic countries (Estonia, Lithuania and Latvia) and the late post-socialist eastern countries Bulgaria and Rumania joining the EU very recently.

3.3.8 Implications of typologies for micro-macro relations

From different angles, the foregoing typologies feature characteristics of E&T systems, labour market systems and skill formation systems.

Many of the existing typologies are not adequate for the project LLL2010, because

- they either look at a specific selection of countries (mostly large countries as the UK, Japan, Germany, France) or countries not relevant for our project, and do not cover all the

European countries or at least a broad selection as in our project. New EU member states have not received any attention or they are classified as one type;

- they are mainly socio-economic oriented and do not take historical/cultural/political aspects into account;
- they are not detailed/differentiated enough to explain countries lying close to each other though they might be very different;
- much of the research is static;
- poor measures of policy, institutional and other structural dimensions than the socio-economic.

In the light of the above comments, and coming back to the idea of path dependence and the very fruitful thought of David Raffe on typologies (2006), we would conclude the following for our further work on a 'framework'.

- We should not rely upon too much on existing typologies and should not start with pre-existing models based on such typologies (as long as they are so inappropriate).
- We should take the different dimensions used to form typologies into account, instead of designing our own typology at the very beginning.
- By developing our own framework and typology we should take path dependency and changes very seriously. This means that our retrospectives should scrutinise whether a historic event tends to trigger a subsequent sequence that follows a relatively deterministic pattern, be it self-reinforcing or reactive sequences (cf. Mahoney 2000 p.535). However, in order to avoid deterministic and lock-in perspectives in our work, a guiding principle should be to look for changing patterns. The typologies developed during our project thus have to be developmental oriented.

4. Measuring characteristics of lifelong learning

Based on the foregoing attempt to single out the most important *characteristics* of LLL, this chapter will depict how they can be measured by listing *dimensions* leading to LLL *indicators*. These dimensions and indicators are grouped from A-F, starting with the very general framework (broader economic and social context) and ending with the specific contribution of E&T systems to adult learning. The very last group of dimensions and indicators returns to the critical question of whether there is a move towards *lifelong learning systems*.

A. Broader economic and social context

These dimensions aim to capture general characteristics of the economy and occupational structures.

Indicators

-GDP per inhabitant
- proportion of knowledge intensive workplaces
-low skill production (low value-added industries, mass production, competing through standardisation and prices) vs. high skill production (high value-added industries, high-quality products)
- matching between educational and occupational structure (see Markowitsch and Hefler 2007, p. 68-69)
- Public expenditure on education, % from GDP
- Percentage of employees with ISCED 5-6 level

B. Welfare state regimes

Main dimensions

Labour market policy measures: passive and active

Indicators

- active labour market measures, the percentage from GDP
- training of unemployed, the percentage from GDP
- out-of-work income maintenance and support, the percentage from GDP

C. Labour market

Main dimensions

a. Internal vs. occupational vs. flexible labour market
b. Centralized wage bargaining vs. decentralised wage bargaining
c. Labour market flexibility
d. The role of trade unions
e. Wage compression
f. Minimum wages

Indicators

- Qualitative indicator for LM: Internal vs. occupational vs. flexible labour market
- the OECD index of employment protection legislation
- trade union density rate
- centralised versus decentralised wage bargaining
- wage percentiles 50/10; wage percentiles 90/50
- minimum wages: existence, level of minimum wage as % of average wage

D. The system of initial education

The aim is to raise questions about how initial education is connected with the links between education and the labour market, which are further outlined below under the heading ‘skill formation system’.

Main dimensions

a. the stratification of educational systems or the extent to which the school population is sorted early in the school careers into tracks of different curricula, different scholastic demands and with different opportunities and barriers for progression up to the high end of the educational ladder – with relation to the secondary level only (comprehensive versus stratified);
b. vocational specificity - system organized to provide largely general education versus those equipping school leavers with vocational skills;
c. the form of organization of vocational training, either school based or as a combination of training and working (dual system);
d. the degree of standardization of educational provisions, i.e., the degree to which the quality of education meets the same standards nationwide.

Indicators

- the typical age of selection to institutional tracks;
- selectivity of admission to secondary school, eg. Zoned comprehensive; open enrolment/partially comprehensive, selection by ability (Green et al. 1999, 78);
- qualitative indicator from 0 to 2 characterising stratification: 0 – comprehensive education system with little streaming along educational tracks; 2 – non-comprehensive education system with high degree of streaming along educational tracks;
- pupils in secondary education enrolled in vocational stream;
- qualitative indicator - the form of organization of vocational training, either school based or dual system;
- the organization of the tertiary education system: dual, binary, unified or stratified,
- the proportion of recent cohorts achieving tertiary education.

E. Skill formation system

We use the term *skill formation system* to depict how interfaces between the labour market and the education&training system are structured at a national level.

Main dimensions

(a) the role of initial vs. further education in skill formation
(b) in case of further education the role of formal education vs non-formal training in skill formation
(c) the responsibility of individual, employer and the state in skill formation
(d) do employers and individuals negotiate these roles as corporate actors or as individual actors?
(e) the role of enterprises vs educational system vs non-formal training in skill formation
(f) Political rhetoric vs. concrete measures

Indicators

- qualitative indicator - the main role in skill formation : 1-initial education; 2- further formal education; 3- further non-formal education
- 3 qualitative indicators: the role of enterprises vs educational system vs non-formal training in skill formation: 1- main role; 2 – second role; 3 –less important role

- 3 qualitative indicators – the responsibility of individual, employer and the state in skill formation: 1 – mainly responsible, 2-…, 3 – less responsible
- qualitative indicator: 1- In-company training is primarily decided and delivered by enterprises or associations of enterprises; 2- In-company training is extensively subsidised and/or provided by public authorities
- qualitative indicator: 1 - Specific arrangements for social dialogue on training; 2 - Training arrangements primarily settled between employer and employee
- qualitative indicator social dialogue: 1 - Specific arrangements for social dialogue on training; 2 - Training arrangements primarily settled between employer and employee
- Qualitative indicator characterising the role of professions. Professions have 1 - strong control on training and entry into occupations; 2 – medium control; 3 – weak control
- Qualitative indicator characterisng the role of trade unions. Trade unions have 1 –strong control on staff training; 2- medium control; 3 – weak control.

F. The contribution of the formal education&training system to adult learning

Main dimensions

(a) Priorities of educational policy: the role of formal education versus non-formal training; to what extent and at which level the formal educational system is expected to deal with adult learners;
(b) Peculiarities of the educational system: to what extent and at which level the formal educational system deals with adult learners
(c) Are there any tracks aimed specifically for the adult learners at the different levels of education system
(d) Who is responsible for this specific track: the role (financial, organizational, provision) of the state and employer?
(e) Who are the main "clients" of this track?
(f) Entry requirements in these specific tracks, how they differ from the 'mainstream' requirements, to what extent these requirements are "standardised"
(g) What kind of opportunities to move between specific and mainstream tracks exist
(h) To what extent credentials from these specific tracks differ from those obtained in 'mainstream' tracks in terms of opportunities to proceed in next level of education

Indicators

(The dimensions listed above are treated in the introductory part of the SP3 national reports. The indicators therefore depends on how the SP3 synthesis report sums up the national contributions in this regard).

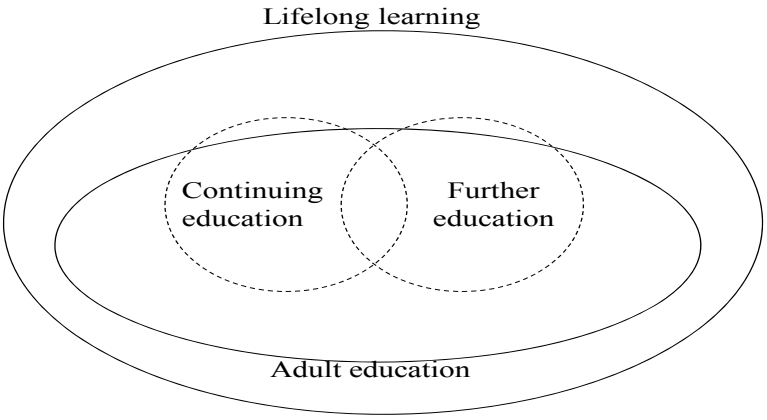
G. Towards lifelong learning systems?

Dimensions and notions of lifelong learning LLL2010 take the standard EU definition of lifelong learning as a point of departure, encompassing "all purposeful learning activity, whether formal or informal, undertaken on an ongoing basis with the aim of improving knowledge, skills and competencies" (EC, 2000).
This definition implies that LLL has a wider scope than adult education because the former also encompasses initial education, for example the crucial question of whether the initial education system is able to prepare young students for a lifelong learning track.

Encyclopedia Britannica defines adult education in broad terms by referring to "any form of learning undertaken by or provided for mature men and women". One consequence of this definition is that both formal and non-formal training are captured, in addition to informal training which is only indirectly covered by LLL2010.

The question then arises of how continuing and further education relate to adult education. These two notions are often interchanged. The Cedefop Thesaurus does not make a distinction between them and this was not done in the SP1 glossary either. In the latter, the definition of 'continuing education and training' is borrowed from OECD and is said to comprehend "all kinds of general and job-related training...".
Encyclopedia Britannica defines continuing education as "formal courses of study for adult part-time students". Further education is, on the other hand, sometimes more related to non-formal courses, which at the level of higher education do not lead to ECTS points. Given that this distinction is not clear-cut, there are reasons for stressing the overlapping dimension of continuing and further education. This point is illustrated in figure 7, which tries to put key notions into the picture.

Figure 7: The notion of LLL and adjacent notions in the field of education&training



Indicators

At the beginning, the relevance of the following indicators explained in earlier parts of this paper need to be discussed:

- The comprehensiveness indicator (see table 2 above)
- The coherence indicator (see table 2 above)
- Indicators for LLL systems (see table 3 above)
-

Additional indicators for consideration:

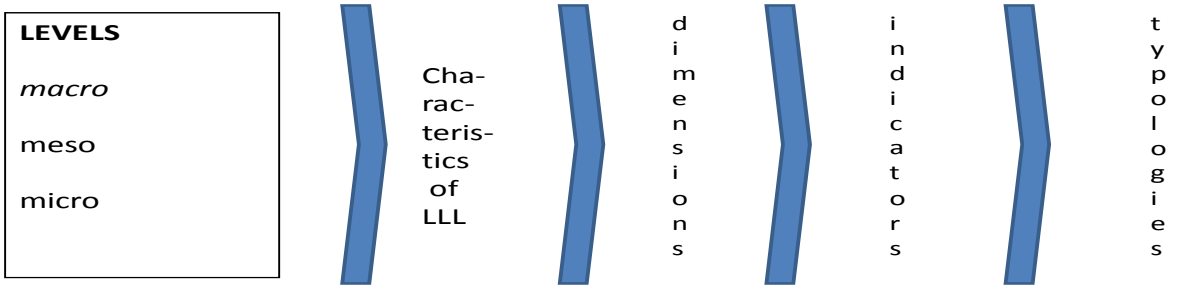
- Qualitative indicator: Control and validation of adult education primarily done by 1 – public authorities; 2 – occupations; 3 – firms; 4- branch organizations; 5 - quasi-market arrangements, e.g. checks&balances
- Qualitative indicator: Coordination by state/societal actors – a qualification framework in partly/fully established, a subsystem of accreditation of prior learning is established; unified qualification exists (3 point per positive answer, divided by 3)
- Public support to employees in further and continuing training

- Public support to all forms of adult education (*alternative*: all forms of further and continuing training)

Preliminary conclusions

At this stage we could remind ourselves of how the conceptual framework has evolved into its present shape.

FIGURE 8. STEPS IN DEVELOPING THE CONCEPTUAL FRAMEWORK



The many dimensions and indicators of LLL need to be judged against the Conceptual Framework illustrated in figure 2 at the beginning of this paper. This framework was boiled down to five ingredients:

1. *Individual lifelong learning processes and outcomes.*
2. *Collective lifelong learning processes and outcomes.*
3. *National patterns.*
4. *Institutional and structural dimensions of lifelong learning processes.*
5. *Ensuing typologies of lifelong learning systems*

It appears that there is a lack of indicators elucidating institutional and structural dimensions at a meso level, including collective learning processes and outcomes. This lack will hopefully be less pronounced after the completion of subprojects 3, 4 and 5.....

5. Implications of LLL characteristics and typologies

The foregoing typologies have featured various characteristics of lifelong learning. While using such insight in the elaboration of the subprojects, a first step can be to map each country according

to key characteristics. Afterwards, more detailed indicators have to be developed depending on available data. Below, we will briefly air some ideas for how to draw on each subproject in our common work on developing a joint framework for the project. As subprojects 2 and 5 have not yet started, they are not mentioned below.

Implications for each subproject

Subproject 1

Two main sources for the comparative report of SP1 are country reports in which national teams scratched under the surface of official statistics and ministerial discourses *and* national/European statistics compiled in a statistical annex. In addition, various typologies of relevance for SP1 have been identified and commented on. One typology is presented in table 2 above. It shows how far Member states have come in developing strategies that promote lifelong learning. Each strategy under scrutiny is set out in very broad terms, like 'focus on disadvantaged groups'. The country reports of SP1 have shed light on **how** disadvantaged groups are included/excluded/neglected in national LLL policies. Although our project should lean on broad classifications e.g. made by the EC, we have to develop our own classifications and typologies in the course of the SPs. A guiding principle for this work should be what LLL characteristics that are important in the fulfilment of each SP (what delivery is promised, how can input from other SPs be used in developing typologies for the SP in question…). SP1 report presented the following classification.

Scandinavian model

Norway has high GDP and high investment in all forms of lifelong learning, which are seen as contributing to human capital, social capital and personal growth. Systems are highly flexible and efforts are made to include those at risk of social exclusion, contributing to a relatively low poverty risk. Unlike the Anglo-Saxon model, labour markets are fairly tightly regulated. Norway exemplifies the new European socioeconomic model, combining economic efficiency and effectiveness with strong social inclusion measures, and in both these areas lifelong learning plays a central role.

Anglo-Celtic Model

England, Scotland and Ireland fall under this heading, with relatively high GDP, but low employment protection and relatively high risk of poverty, reflecting the wide spread in household income. There is relatively high participation of adults in formal education, and a major stress on lifelong learning as the means of generating economic prosperity for the future. In line with Ireland's traditional emphasis on education, lifelong learning, rather than social transfers tend to be seen as the means of tackling social exclusion.

Continental model

Austria and Flanders exemplify the continental model, with fairly rigid and stratified systems of compulsory and post-compulsory education, highly regulated labour markets but fewer efforts to include socially excluded groups through lifelong learning or social transfers.

Catching Up Model

Within this grouping of countries, there are some similarities, but also very wide variations. Lifelong learning is valued in terms of its potential contribution to economic growth. There is less emphasis on using lifelong learning to combat social exclusion and the collapse of earlier social protection systems which existed in the Soviet era means that there is high risk of poverty (although the Czech Republic appears to be an exception here). Slovenia stands out from other Central and

Eastern European countries and appears in many ways to be much closer to the old member states in terms of investment in compulsory and post-compulsory education, participation rates in lifelong learning and attention to the needs of groups at risk of social exclusion through access to adult learning opportunities and social transfers. However, it should be noted that the political situation in Slovenia is volatile, and a more right-wing government has been elected, with a commitment to enhancing economic growth and curtailing redistributive measures.

Subproject 3

- The team co-ordinating this subproject, HIVA, is invited to consider if the national SP3 reports have nurtured the framework proposed in figure 4 and 5 above. In other words, is there now a need for any modification of this framework?
- Other implications from SP3?

Subproject 4

- The team co-ordinating this subproject, DUK, is invited to consider if the national SP4 reports have nurtured the 'typology of countries based on training in enterprises', see chapter 3.4.7. above. In other words, is there now a need for any modification of this typology?
- Other implications from SP4?

Expected outcome at the end of the project

LLL2010 will carry out empirical studies at a macro, meso and micro level in order to analyse macro-structural factors and national policies, as well as institutional factors and actors' motivations that all together influence the role of educational systems in promoting lifelong learning.
To live up to this ambition, the conceptual framework should help us in arriving at a final summary that i.a. takes account of:

1. The state-of-play as revealed in all SPs

2. Explanations of the state-of-play:
    - development lines (do all countries move in the same direction e.g. by means of strategies for 'following the leader' or for 'catching up')
    - is there empirical evidence of convergence into a European LLL model?
    - learning from best practices (slogan or reality?)
    - are there signs of policy learning in the frame of Lisbon 2010?
    - Europeanization vs. globalisation of LLL

3. Implications of our findings:
    - historic paths (to what extent does history matter as explanatory factor vs. other factors?)
    - path dependence (summary of what came out of this perspective on LLL)
    - do our typologies support the existence of regional, national, pluri-national or European models of LLL?
    - (what is the weight of macro-structural factors with regard to these models?)

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General Context of the LLL 2010 Research Project

In March 2000, the then 15 European leaders committed the European Union to become by 2010 "the most dynamic and competitive knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment". The Lisbon strategy, as it has come to be known, was a comprehensive but interdependent series of reforms, which has significant implications for a whole range of social policies, including policies for learning.

As part of the Lisbon strategy, the European Union has set the goal of raising the number of adults participating in lifelong learning to 12.5% by 2010. However, the proportion of learning adults in Europe differs widely across countries. The project **"Towards a Lifelong Learning Society in Europe: the contribution of the education system"**, which forms part of the European Commission's 6th Framework Research Program, is dedicated to identifying the reasons behind these differences and to studying the policies and practices related to adults' participation in and access to lifelong learning in a number of European countries (see project's web-page http://LLL2010.tlu.ee).

The project involves researchers from thirteen countries and regions of Europe: Scotland, England, Ireland, Austria, Belgium, Slovenia, Czech Republic, Estonia, Lithuania, Hungary, Bulgaria, Norway and Russia.

Project objectives

The objectives of this project are to:

- Show to what extent the countries differ in terms of patterns of lifelong learning.
- Reveal how these differences depend upon specific institutions and policies of each country.
- Assess the contribution of each country's education system to the development of lifelong learning.
- Trace the ways institutional and policy prerequisites for lifelong learning have been developed in European countries.
- Identify the barriers to participation in lifelong learning in terms of policies, educational institutions, enterprises' practices and potential learners' motivation.
- Identify the best solutions and most successful practices in terms of participation in lifelong learning and to decide to what extent these would be applicable in other countries.
- Propose changes, which would enhance adult participation in lifelong learning and decrease social exclusion.

The LLL2010 research project extends over five years (commencing in September 2005), and these questions will be addressed in various ways through five sub-projects.

Potential impact

Project is expected to contribute both to competitiveness and cohesion of the EU by (a) developing and carrying out a joint agenda for a better understanding of the tensions between the knowledge-based society, lifelong learning and social inclusion in the context of enlargement of the EU and globalisation, (b) identification of best practices and suggestion of ways for implementation in order to reach the objectives for lifelong learning. The LLL2010 research project extends over five years

(commencing in September 2005), and these questions will be addressed in various ways through five sub-projects.

The plan for disseminating the knowledge

The project aims to examine and report on national differences in approaching formal lifelong learning, but also to assist policymakers and practitioners in learning appropriate lessons from contrasting practice in other countries. Therefore, disseminating knowledge to relevant audiences – individuals, institutional actors and policymakers – is of the core issues within this project, and so dissemination activity will take place throughout the life of the project.

The preliminary results will be discussed in the workshops and conferences and introduced to national as well as international audiences. The results of the different research projects within LLL2010 will be presented in five comparative reports – one per subproject – and a final report, and two books will be published as a result of the project. A Conference "The Contribution of the Education System to Lifelong Learning", scheduled in the end of the project, is aimed at discussing findings, conclusions and expert opinions on a European level.

To contribute to scientific discussion and enhance comparative studies in the field, further analysis of the results of the research will take place in articles published in specialized and interdisciplinary journals. As LLL2010 will undertake a number of original studies, the data, questionnaires and codebooks, and all the other relevant materials generated in the project will be made available to the scientific community at large.

Research Institutions in LLL2010 Consortium

1. Institute for International and Social Studies, Tallinn University, Estonia
2. Higher Institute for Labour Studies, Catholic University of Leuven, Belgium
3. Univeristy of Nottingham, England, United Kingdom
4. Moray House School of Education, University of Edinburgh, Scotland, United Kingdom
5. Educational Disadvantage Centre, Centre for Human Development at St. Patrick's College, Dublin City University, Ireland
6. Fafo Institute for Labour and Social Research, Oslo, Norway
7. Slovenian Institute for Adult Education, Ljubljana, Slovenia
8. TÁRKI Social Research Centre, Budapest, Hungary
9. Centre for International Relations and Studies, Mykolo Romerio University, Vilnius, Lithuania
10. Institute of Sociology, Bukarest, Bulgaria
11. St. Petersburg State University: Department of Sociology, Department of Retraining and Improvement of Professional Skills for Sociology and Social Work, Russia
12. 3s research laboratory, Vienna / Danube University, Krems, Austria
13. The National Training Fund, Prague, Czech Republic
14. Institute for Social Research, Vilnius, Lithuania

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