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PART I**ON SOCIO-ECONOMIC SUSTAINABILITY
AND ROBUSTNESS****Guest editor: Ilari Karppi, Jukka Kultalahti, Olli Kultalahti****INTRODUCTION**

Effects of globalisation can be seen simultaneously on several geographical scales, in numerous societal arenas and with a variety of consequences. The three articles of this issue (Part I) scrutinise and discuss some of these. Their themes were originally selected with the purpose of opening a multifaceted perspective to the mechanisms and processes present in the current transformation of the developed economies. The authors come from Finland, but the phenomena and processes are not confined to Northern Europe or any particular geographical area.

The issue is also an effort reflecting the inspiring intellectual cooperation with-in a European community of researchers called the Tampere Group. The name refers to the venue of the Group's first meeting a decade ago. Since then the Tampere Group has organised conferences and workshops, mainly in different university locations in Finland and Italy and typically inviting external specialists to broaden the scope of discussions. We firmly believe that multidisciplinary communities based on long-term and inclusive relationships may contribute to a deeper, more innovative and creative understanding of complex phenomena – such as globalisation.

Multidisciplinary approach is a lead idea in the work of Tampere Group. The Group operates as a network of researchers from various disciplines and from several countries. Methodological approaches of different disciplines, including anthropology, sociology, statistics, economics, political science, history, law, regional studies, human and social geography, and environmental policy have been widely scrutinized in the Group's conferences and workshops as well as in the published works of its members.

On the basis of the papers presented and debated in these meetings the network produced its first book, *Globalisation, Challenges to Research and Governance* (J. Kultalahti, I. Karppi, O. Kultalahti and E. Todisco, eds., 2009, Helsinki: East-West Books), and is currently working on the second volume. The 2009 volume of the Tampere Group was deliberately focused on aspects of globalisation not

typically emphasised in the gradually emerged tradition that tends to put its economic and even business drivers and due implications to the foreground. This issue of the ESRP, in turn, shifts the perspective to the more traditional economic impacts of globalisation, starting with the challenges faced by taxation and continuing with papers that focus on impacts met on other geographical levels, by different actors and through different mechanisms of governance.

The first paper *Tax Competition as a Challenge to the Governance of Global Economy* (by Seppo Penttilä and Jukka Kultalahti) concentrates on analysing the role of taxation in global economy. The main focus is on national, regional and global tax systems. The authors emphasise that the power to tax is one feature of an independent state and the borders of a state have an important role in taxation. On the other hand, in global economy, the flows of goods, services, persons and capital are extensively crossing the borders. How do tax systems respond to this challenge? Is the answer in tax competition or in tax harmonisation? The paper approaches the questions from the perspective of the governance of globalisation. The authors analyse the actors, goals, and mechanisms of governance. They emphasise that both hard law mechanisms (legally binding rules, e.g. national laws and international treaties) and soft law mechanisms (legally non-binding means, e.g. international standards and models) have been used in governance by taxation. So are also both tax competition and tax harmonisation. Attempts to govern the processes of global economy on national level may easily lead to tax competition. On the other hand, at least at the supranational level, i.e. at regional or global level, the goals and mechanisms of governance seem to emphasise harmonisation. Global and regional actors, such as the OECD and the EU, have developed international cooperation in taxation in order to prevent and reduce harmful tax competition and tax avoidance. Soft law mechanisms, developed by e.g. the OECD, have then been converted into hard law mechanisms on national level. At the regional level (EU) the governance activities have been based on both soft law and hard law mechanisms.

The second paper *Developments in Education and International Migrations in New Member States of the EU* (by Olli Kultalahti) deals with globalisation on the European level emphasising national aspects. Estonia is the example of the countries in the Baltic Sea Region, and the Czech Republic and Slovakia represent the countries of Central Europe. All these countries were in a dynamic phase of development in the 1990s and the 2000s proceeding towards market economy under the challenges of spreading and deepening globalisation. The three new Member States of the EU offer an exceptional and almost experimental opportunity for this type of approach. The countries have experienced and undergone changes and developments which took several decades if not a century in the old Member States. The paper focuses on various elements in the developments of education systems making people capable to cope with in global labour markets. The outcomes of these developments largely regulate the supply of labour and consequently its

international demand. Some statistics on international migration and integration of migrants in global labour markets are presented. The aim of this paper is to raise questions about relevant issues to be paid attention to in studies focusing on education and international migrations rather than to try to give any straightforward solutions. For example, gender differences, i.e. men's weaker participation in education in all EU countries, and their potential role in international migrations and over-qualification both among the native and foreign-born populations are among the questions emerged in the paper.

In his paper *Open Innovations and Living Labs: Promises or Challenges to Regional Renewal*, Ilari Karppi moves the focus to an intra-organisational scale. The paper highlights processes and practices whose transformations reflect the impacts of globalisation. It introduces two real-life case processes that seek to utilise two popular approaches for making the boundaries between organisations and their environment more permeable: open innovation and living lab. The venues studied in the paper are unique. One of them is located in one of the oldest still remaining factory buildings in the innermost core of the city of Tampere. The processes housed by this venue may well contribute to the renewal of entire mindsets associated with work in knowledge-intensive industries. The other process has taken over an abandoned log house and turned it into an exceptionally ambitious venue for an innovative urban renewal working group. It seeks to bridge the gap between conflicting interests in urban planning, using a wide array of tools ranging from high-tech solutions to nurturing of the spirit of the community to serve this goal. As it is emphasised in the paper, the processes and developments introduced here need still to stand the test of time. They are not (yet) regular administrative or market-led practices but innovative and open-minded processes for broadening the existing practices and approaches. By doing so they may add new experience-based insights on what may be the forthcoming evolutionary directions in our established ways of thinking about work or entrepreneurship, or urban planning or other processes imbued with public interest.

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INVITED ARTICLES**Seppo PENTTILÄ*, Jukka KULTALAHTI*****TAX COMPETITION AS A CHALLENGE TO THE
GOVERNANCE OF GLOBAL ECONOMY**

Abstract: The paper analyses the role of tax competition in global economy. How can tax systems respond to the challenge – by international cooperation or by national rules, by tax harmonisation or by tax competition? In this paper we approach the question as a matter of global governance. Tax competition is seen both as a means and as an object of global governance. Our conclusion is that there is no universal answer to the question: competition or harmonisation? Attempts to govern the processes of global economy on a national level may easily lead to tax competition. On the other hand, at least at the supranational level, i.e. at regional or global level, the goals and mechanisms of governance seem to emphasise harmonisation. Nowadays especially the OECD has become an important actor or forum for cooperation in taxation. It has succeeded in many ways in preventing and reducing harmful tax competition. The soft law mechanisms developed by the OECD have often been converted into the hard law mechanisms on national level. The governance activities have been based on both soft law and hard law mechanisms.

Key words: tax competition, tax harmonisation, hard law, soft law, globalisation, governance.

1. INTRODUCTION

This paper concentrates on analysing the increasing role of tax competition due to the globalisation of economy. How do national and international tax systems respond to this challenge? Is the answer in international cooperation

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or in national rules – in tax harmonisation¹ or in tax competition²? Is it possible to answer this question? What are the possible mechanisms of tax competition?

The power to tax is one feature of an independent state. It includes the legislative power, the right to receive the tax revenues and the administrative power. The borders of a state have always been important in taxation.³ Within its own borders a state can exercise its power to tax. Because the borders in taxation are important, states have guarded the borders in taxation effectively so that crossing the border does not enable people to escape taxation. It is even possible and usual that cross-border activities face extra tax burden compared to purely domestic activities. How do such laws, which were developed at a time when cross-border flows of goods, services, persons and capital were much less important than they are today, appear in a globalised world?

We approach the questions of tax competition from the perspective of the governance of globalisation. In this context tax competition may be seen both as a means of governance and as an object of global governance. We start from the more general aspects of governance and then go deeper into the mechanisms and empirical findings of tax competition.

2. GOVERNANCE OF GLOBALISATION

The general idea of global governance is to maximise the benefits and minimise the hazards of globalisation. The governance activities aim at solving or alleviating:

- the problems caused by social polarisation and social/global injustice;
- environmental problems, e.g. global warming and problems with the ozone layer;

¹ Within the EU tax harmonisation consists in the adaptation of each Member State's legislation to a standard which is common to all Member States and which has been set by the EU supranational bodies. However, this is quite a strict definition and tax laws of different countries may harmonise or at least approximate also without standards issued by supranational bodies. Tax systems and tax rates may move closer when countries use foreign tax rules and models as a base when shaping their own legislation. E.g. the dual income tax rate system in the Nordic countries is such an example. Harmonisation may also be a result of tax competition. For more about the concept of tax harmonisation see Steichen (2003, pp. 47–48).

² Tax competition may be defined as improving the relative competitive position of one country *vis-à-vis* other countries by reducing the tax burden on businesses and individuals in order to retain, gain or regain mobile economic activities and the corresponding tax base, whether at the expense of other countries or otherwise. See Kiekebeld (2004, p. 8) and Steichen (2003, pp. 45–46). Often participating in tax competition means lowering of tax rates below those of other jurisdictions or the opening of loopholes in the tax base, e.g. exempting some kind of income from income tax.

³ Borders naturally have many functions. See e.g. Bufon's (2011) analysis about borders producing socio-economic environments of simultaneous potential opportunity or danger, contact or conflict, cooperation or competition, convergence or divergence.

- a shortage of global natural resources (including fossil fuel and water);
- economic inefficiency;
- problems in economic and financial stability;
- problems caused by unbalanced labour markets;
- problems with information society development, the digital divide;
- other problems.

The problem is how to manage with the conflicting benefits of globalisation, with the fact that the benefits and disadvantages of globalisation are unequally distributed. This is also the case in the governance of global economy, where the tax competition seems to be an outstanding phenomenon. The answer to the question: tax competition or tax harmonisation, for instance, depends on the distribution of the benefits and disadvantages of economic globalisation. Whether the question should be approached from the global perspective or from the level of individual state, is also a substantive issue.

The relevant aspects in governance concern who the actors in governance are and what the goals and mechanisms of governance are.

2.1. The Actors in Governance: General Aspects

The governance of globalisation can be carried out by many different actors. There is a need for common principles of governance at the global level but also more detailed governance at the national level. If we understand governance as a broad concept, the actors can be private or public, or actors from the so-called third sector. The governance activities may manifest at global, regional, national or local level. The potential tools of governance vary depending on what kind of power the actor is able to wield.

The institutional features of governance are also connected to the flows in focus. The flows of money, people, goods, environmental hazards or information and others all need different kinds of governance and different actors to implement the governance activities. The actors may also jointly build very complex institutional systems of the governance of globalisation (Rosenau, 2004, p. 73). Thus the concept of governance is highly nuanced and multidimensional.

In the literature there are at least the following types of characterisations of the architecture of global governance (Held and McGrew, 2004, p. 9):

- it is multilayered (suprastate, like the UN; regional, like the EU; transnational civil society, business networks; national, local etc.);
- it is pluralistic (political authority is fragmented);
- it has a variable geometry (infrastructures vary around the globe and from issue to issue);
- the system is structurally complex (composed of diverse agencies and networks with overlapping jurisdictions, differential power resources and competencies);

– national governments are crucial as strategic sites for suturing together the various infrastructures of governance and legitimising regulation.

Thus the institutional system of governance is now highly complex and likely to remain so in the future. It is difficult to describe the whole system of governance. Legal governance can roughly be categorised by two dimensions: (1) *institutional level of governance*: global/international – national and (2) *mechanisms of governance*: ‘hard law’ – ‘soft law’ (according to the legal instruments available to the actor) – see table 1.

Table 1. Some examples of actors of global governance

Mechanism of governance	Institutional level of governance	
	international actors	national actors
‘Hard law’	UN, WTO, WB, IMF... EU, NAFTA IGOs TNCs etc.	states (governments) local communities other authorities (by delegation of legal power) etc.
‘Soft law’	INGOs G8 (org G7 or G20...) OECD TNCs Science (Organisations) etc.	NGOs Third Sector Private Citizens, Science (Organisations) etc.

Legend: UN – United Nations; WTO – World Trade Organisation; WB – World Bank; IMF – International Monetary Fund; EU – European Union; NAFTA – North American Free Trade Agreement; IGO – International Governmental Organisation; OECD – The Organisation for Economic Cooperation and Development; TNC – Transnational Corporation; INGO – International Non-Governmental Organisation; G7 – Governance arrangement between a group of states: USA, Japan, Germany, France, the United Kingdom, Italy, Canada and the European Community (G8 = G7 + Russia; G20 – Group Twenty, arrangement between so-called emerging markets and G7; Formerly the Group of Seven (G7), the G20 was created in 1999 as a forum for national finance ministers of the G7 together with the European Union and the heads of the IMF and World Bank); NGO – National Non-Governmental Organisation.

Source: Kultalahti (2006, p. 78).

The institutional system of global governance is in a state of flux. Rorden Wilkinson (2006, pp. 2–5) has pointed out several trends in the structures of global politics, actors, processes and mechanisms of governance. Concerning the actors there is a trend from state to non-state actors, from bilateral to multi-lateral relations and towards the idea of using networks of actors to solve global problems. There is also a need to respect human rights and develop democratic

systems of governance. These trends are relevant if we look at the issue from a more general level of governance activities. From the taxation point of view the most important actors – in the field of hard law – are national states, local communities or other authorities having taxation competence. The actors use taxation – not only for fiscal purposes but also as a means of governance, where the tax competition is an essential instrument. International hard law actors consist mostly of national governments (tax treaties) and regional authorities like the EU. In this case taxation may be seen as an object of governance. It is often a question of tax harmonisation.

Due to the legalistic nature of taxation, soft law does not have a very important role in it, at least not on the national level. The soft law actors focus on defining tax policy, international standards and models. This is primarily done through international cooperation, carried out e.g. by the G8, G7, G20 and international organisations like the OECD and WTO. Because taxation is pronouncedly national, legislators and national authorities are the most important ones. In federal states local governments may also be of importance. It is well known that some but not all the Swiss cantons have a very good climate from the perspective of tax planning. However, in the field of taxation international cooperation is also needed. The role of the OECD is central in matters of international taxation. Nowadays the OECD can be classified as global actor. At least in Europe, but also more widely, the EU is important as a regional actor. The premise is that the role of the OECD is seen mainly at the level of soft law whereas the role of the EU is seen in both hard law and soft law. Such governance activities are also in a state of flux.

2.2. The Goals of Governance

In the global information society and economy there is a need to strengthen the positive aspects of globalisation and to weaken the negative ones. The best deals are those where all the parties win (the ‘win-win’ situation).⁴ The problem is that the benefits and disadvantages of globalisation are often unequally distributed. Hence the need for governance varies from place to place and from time to time. It is difficult or even impossible to construct a universal model of governance. Sometimes we only have to strengthen our capability to adapt to the global changes.

Held and McGrew (2005) have analysed the new globalisation policy which they call a *cosmopolitan social democracy*. In addition to economic efficiency

⁴ This refers to the idea of ‘Pareto theory’ (‘Pareto optimum’). In the field of tax harmonisation or tax competition this means that these taxation activities are only justified if they improve the actor’s situation without deteriorating that of any others. See e.g. Steichen (2003, pp. 78–79) and the source mentioned there.

they emphasise such values as the rule of law, political and international equality, democracy, social justice and global solidarity, transparency in political and administrative processes etc. These values should also be implemented in the distribution of natural resources and human security. Held and McGrew call for communality both on the local level and on the global level, and also on all the intermediate levels. They speak for the governance of world trade by publicly controlling the money and commercial flows of the world, by producing global public services and by compelling the stakeholders to commit to directing the big companies (Held and McGrew, 2005, pp. 141–142).

Recently attention has also been paid to the paradigm change of globalisation. The idea is that the globalisation process is now accruing at a much finer level of disaggregation. As Richard Baldwin (2006) puts it,

[...] due to radical reductions in international communication and coordination costs, [...] firms can offshore many tasks that were previously considered non-traded. This means that international competition – which used to be primarily between firms and sectors in different nations – now occurs between individual workers performing similar tasks in different nations.

The other new feature is that globalisation will seem quite unpredictable. Since individual tasks can be offshored, globalisation may help some workers in a given firm while harming others. Baldwin suggests that this all calls for flexibility, the ability to adapt rapidly to new circumstances and an education policy which concentrates on learning how to learn, instead of learning particular sets of skills (Baldwin, 2006, especially pp. 5, 24–30 and 45–46).⁵

The governance of globalisation is of course a matter of political will. If values like the rule of law, democracy, transparency of activities, social justice, human rights and economic efficiency are deemed important, they should appear both in the content and measures of governance as well as in the institutional structures of the governance of globalisation. In the field of taxation this means a ‘good tax system’ built on democratic decisions and social/global justice – and at the same time guaranteeing economic efficiency. The last two or three conditions (justice and economic efficiency) depend strongly on the standpoint we are looking from, global or national. A so-called ‘good tax system’ has many definitions. Usually the national tax system is characterised by features like economic efficiency, social justice, clarity, flexibility and international compatibility (Hjerpe *et al.*, 2003, pp. 25–31).

Is there a need for tax competition and/or tax harmonisation? If we take tax competition as a means of a national state to govern global economy by ensuring the national competitiveness, what are the pros and cons of it? Schön (2003, pp. 5–6) emphasises three aspects as pros of tax competition: downward

⁵ Giuseppe Burgio also paid attention to this idea in the meeting of globalisation researchers in Rome 5th October 2006.

pressure on tax burden, fiscal discipline and proper balance of tax level and public goods. Steichen (2003, p. 73) states that tax competition should be welcomed because it is the perfect tool for making public services leaner and more efficient. At the other end of the scale are the risks of harmful or unfair⁶ competition and the so-called ‘race to the bottom’. There is also a possibility that tax competition undermines the constitutional foundations of a tax system, i.e. the institutional power of the parliament as a tax legislator. It may also challenge the material principle of equity which requires a non-discriminatory approach as to the different sources of income without respect for the economic mobility of the tax base (see Schön, 2003, p. 14 and the reports referred to there). Steichen (2003, pp. 60–62) thinks, however, that the race to the bottom will never happen and he prefers tax competition to tax harmonisation (see also Schön, 2003, p. 30). The pros of tax harmonisation are also many: reduction of compliance costs, transparency for the taxpayer, tax neutrality and equity of taxation and redistributive effects of taxation (Schön, 2003, p. 5). On the other hand tax harmonisation also has many undesirable features, such as its character as a ‘tax cartel’ or the possibility that, ultimately, everybody may turn out to be a loser from tax harmonisation (Steichen, 2003, pp. 60, 83–84). Steichen (2003, pp. 43 and 119) also thinks that, at least in the EU, tax harmonisation is possible only in the field of indirect taxes, but an ‘impossible task’ in the field of income taxes. However, there has been at least some progress in tax harmonisation, including income taxation and currently there are fairly ambitious efforts in this field namely the proposal for the Common Consolidated Corporate Tax Base (CCCTB).

Taxes are the main source of income of most welfare states and taxation is also used as a tool of economic policy. It is understandable that states are reluctant to restrict their sovereignty in taxation. On the other hand states endeavour to remove barriers to international trade, and to foster capital flows and mobility of persons but at the same time they want to retain their sovereignty in taxation and tax the cross-border activities maybe even more severely. How to strike a balance between these objectives? It means to develop a system that does not constitute an undue impediment to cross-border activities while protecting the revenue of the state (see Vann, 2002, p. 720). So, how to govern globalisation in tax matters?

If we set these findings against the background of general goals of global governance and the good tax system, tax harmonisation seems to promote their social and global justice aspects fairly well. Of course justice is also heavily dependent on other circumstances. On the other hand, tax competition tends to contribute to

⁶ It has been pointed out that the distinction between ‘fair’ and ‘unfair’ competition is not possible from the legal point of view. It is a definition of the political level see Schön (2003, pp. 18–19).

the efficiency of the national economy – and perhaps also the global economy. This is the case if the ‘race to the bottom’ does not take place. Thus there may not be any universal answer to the question: tax harmonisation or tax competition? We need some empirical findings to understand better the benefits and disadvantages of these two tendencies of taxation.

2.3. The Mechanisms of Governance

Governance may be carried out by governments and international cooperation, it may happen at the global, regional, national or local level and it may be based on legal regulation or different kinds of practices or conventions. The mechanism of governance can also be arranged hierarchically or horizontally, the governance activities may be described as ‘top down’ or ‘bottom up’ etc.

What is then the role of law in the governance of globalisation? It is naturally important to try to maximise the benefits and minimise the disadvantages of globalisation. Obviously, not all the problems can be resolved by legal regulation, but it may be possible to keep the problems from becoming critical. For example, common rules are needed to prevent the emergence of unreasonable and unjust divides (e.g. the digital divide, the informational divide; see Pöysti, 2002, p. 36) and polarisations in the information society and global economy (see e.g. WSIS, 2003a, b). The problem with legal governance is that in many cases the law is lagging behind. Legal regulation is often reactions to things that have already happened, ‘beating the fire out’, rather than guiding the development in the right direction. Yet it is possible to strengthen a healthy global information society and global economy by legal regulation. This can be done with common legal rules and rational allocation of resources.

The categorisation of the actors in global governance already demonstrated that there are many kinds of legal means available. The mechanisms vary, of course, depending on the actor or the level of governance. It is also worth keeping in mind that there are many other mechanisms than the legal ones, e.g. direct/indirect economic and financial governance. ‘Money makes the world go around’. The mass media also influence people’s behaviour on the market, as do cultural, political, imaginary and security issues.

We now concentrate on the legal measures, which also are many and varied. The institutional categorisation made above is based on two categories: legally binding mechanisms (‘hard law’) and non-binding or indirect mechanisms (‘soft law’). We could also use the concepts of ‘formal’ and ‘informal’ regulation. Such a dichotomy is not, of course, analytical and detailed enough to describe the legal mechanisms available. We now attempt to analyse the mechanisms in greater detail (see table 2).

Table 2. Some examples of the legal mechanisms of global governance

Mechanism of governance	Institutional level of governance	
	global, international or regional actors	national actors
'Hard law'	Human rights (UN, Council of Europe...) International tax laws and treaties (custom duties etc.) Air safety laws (ICAO) Shipping laws (IMO) Intellectual property rights (WTO, WIPO) etc.	rule of law constitutional rights, fundamental rights other national laws (e.g. tax laws)
'Soft law'	international standards (OECD) food standards (FAO) motor vehicle standards (ECE) market governance (by TNCs) etc.	part of the legal principles (rule of law and good governance principles...) social capital national standards private contracts/agreements etc.

Legend: ICAO – International Civil Aviation Organisation; IMO – International Maritime Organisation; WTO – World Trade Organisation; WIPO – World Intellectual Property Organisation; OECD – The Organisation for Economic Cooperation and Development; FAO – Food and Agriculture Organisation; ECE – Economic Commission of Europe; TNC – Transnational Corporation.

Source: Kultalahti (2009, p. 286).

It is obvious that there is no way to construct a comprehensive instrument of global governance. However, we can learn from our experiences of international relations (e.g. the regulation of the UN), building up regional governance systems (e.g. EU law) and even national government. It is possible to intervene in flows of globalisation and guide them in the right direction by using the existing legal mechanisms, by learning from them and by developing new mechanisms. For example, international human rights regulation and the national fundamental rights laws are used to guarantee private autonomy for every individual, autonomy which both public authorities and private citizens are forbidden to violate. These legal rules have programmatic future effects and they also ensure a minimum level of rights for every individual. The principle is that these rights should be the basis for the governance of globalisation. The national legal regulation aims in the same direction by strengthening democracy and the rule of law. Many international and national regulations concerning some specific fields direct different kinds of economic and welfare flows, and try to safeguard the rights of individuals.

The roles of international and national standards, self-regulations, principles and conventions are often important, even when they are non-binding in nature. Some social and cultural factors also have at least indirect regulatory effects on

the flows of people and capital. From the point of view of legal validity the mechanisms of international law can be categorised as follows (figures 1 and 2).⁷

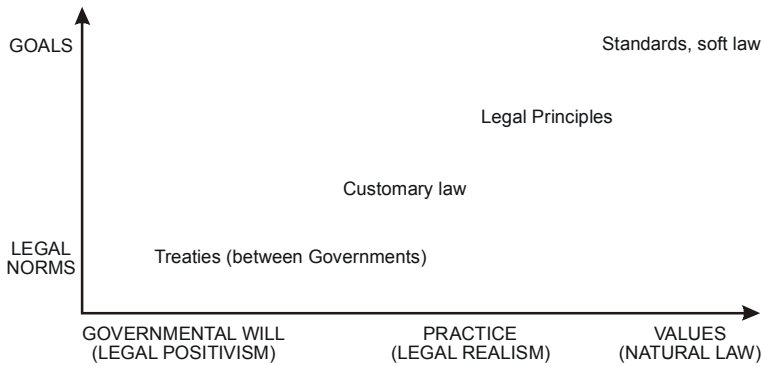


Fig. 1. International sources of law
Source: Rosas (1993)

Langet *et al.* (2006, p. 276) have pointed out that ‘there exists a lack of clarity in the international system as to which type of rules should govern particular situations and conflicts’. For example, it is possible to use either formal rules (here ‘hard law’) or informal rules (here ‘soft law’), but neither of these types of rules (formal/informal) should be preferred to the other, because both are subject to dispute and can lead to abuse (Lang *et al.*, 2006). Therefore both are needed!

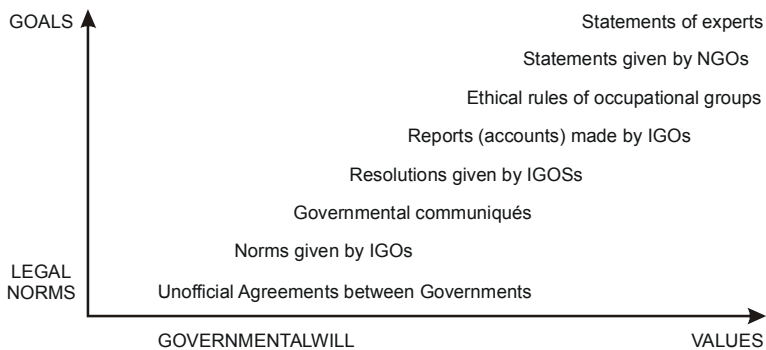


Fig. 2. International soft law documents (some examples)
Source: Rosas (1993)

⁷ See also Rosas (1993, pp. 68–71), where the international sources of human rights are categorised in this way. Figure 1 concerns both ‘hard law’ and ‘soft law’ documents, figure 2 concerns only ‘soft law’ documents.

Legal principles are also very important mechanisms of global governance. The principle of *Pacta sunt servanda* ('agreement must be abided by') is very important both on the international and national level. The role of the principle depends, of course, on how strongly binding the governments and other actors consider them to be.

It is worth noting that the regulatory effect depends on how binding the legal mechanisms are considered to be. This interdependence is not necessarily linear, however. For example, a certain 'gentleman's agreement' may not be legally binding but at the same time it may have a very strong factual effect on some flows of globalisation. In developing the legal governance mechanisms we have to pay attention to this kind of phenomenon. At the same time we have to take care of the coherence and parallelism of the legal governance mechanisms.⁸

The nature of globalisation as a network development constitutes a problem for governance. The change of global activities into horizontal networks may undermine the governance mechanisms based on vertical interrelations. On the other hand, many of the hierarchical political/legal mechanisms are still efficient. At the level of international law the problem is the lack of implementation apparatus and legal sanctions. These problems can also be seen in the implementation of declarations of common intent.

This brief overview of the general mechanisms of global governance shows that there is a complexity and variety of legal mechanisms to be used also in the field of taxation. Tax harmonisation and tax competition may be carried out by hard law and soft law mechanisms. Hard law consists mostly of international tax law (tax treaties, avoiding double taxation etc.) and national tax law. They are used both in tax harmonisation and in tax competition. Soft law mechanisms are also numerous: model tax conventions, standards, statements of NGOs and experts etc. which are often used in the field of tax harmonisation. Tax competition usually takes place on national level (by national legislators), but it aims at strengthening the comparative competitiveness of a national economy on the global market. The idea is to attract economic production factors to the country, and to prevent the economic resources from leaving the country. It is important to note that tax competition – and partly also tax harmonisation – contains only one constellation of mechanisms in this field of governance activity. There are also many other attracting factors, like public services, infrastructure, education, income transfers etc. An exclusive focus on taxes may be misleading. In a global environment governments compete by means of the pattern of both revenue and expenditure (Steichen, 2003, pp. 77–78). The competition therefore occurs on much a broader level, as a competition of systems (see e.g. Penttilä, 2006, p. 596 and the report referred to there). In this respect the coherence of policies has to be taken care of.

⁸ At the meeting of globalisation researchers in Rome 6th October 2006 Graziano Battistella paid attention to the need for coherence of policies e.g. in the governance of migration.

One central mechanism in balancing of taxation and globalisation consists of bilateral treaties. The OECD has offered the states a model by which to retain their national tax laws but at the same time facilitate free movement. This is done on a reciprocal basis restricting their fiscal jurisdiction through tax treaties. The OECD has also guided how some internationally acknowledged principles intended to protect the tax base against improper tax planning, especially the arm's length principle, are applied. In transfer pricing documentation requirements the guidance is in many states transformed into tax law and thus the guidance has achieved the status of hard law. The OECD also has a central role in cooperation which aims to protect the tax revenues of national states in a globalised world. This is done e.g. by effective exchange of information for tax purposes.

The EU is to establish an internal market. The TFEU (Treaty on the Functioning of the European Union) includes fundamental freedoms such as free movement of workers, freedom of establishment, freedom to provide services and free movement of capital. These are also applied to taxation, although there have been difficulties in striking a balance between them and the old traditions of taxation of cross-border activities. To a certain extent fundamental freedoms accelerate tax competition in Europe. It noteworthy that the fundamental freedoms can – at least to a certain extent – also be used to avoid the taxation of a Member State.⁹ However, purely artificial arrangements are not protected by EU law.

Of course the EU imposes limits on tax competition by harmonising taxation. This has happened in value added taxation. In income taxation there is only little harmonisation and its aim is mainly to abolish the tax obstacles to cross-border activities. However, the TFEU includes state aid provisions which are also of significance in taxation. They, as hard law, considerably restrict the scope for using various tax incentives in Member States and thus also impose limits on tax competition. The EU is also of importance in ensuring the effectiveness of taxation e.g. by the exchange of information. The Savings Directive is an example of this.

In the next section we illustrate harmonisation and competition mechanisms by referring to some examples and empirical findings of present legal mechanisms used.

3. EXAMPLES OF TAX COMPETITION AND TAX HARMONISATION

As a whole, although taxation is essentially national, quite a lot of work has been done – other than tax competition – in this field, which aims to facilitate free movement by removing the tax obstacles to cross-border activities, but at the same time

⁹ In C-196/04, *Cadbury Schweppes*, p. 49, the ECJ states as follows: 'it is settled case-law that any advantage resulting from the low taxation to which a subsidiary established in a Member State other than the one in which the parent company was incorporated is subject cannot by itself authorise that Member State to offset that advantage by less favourable tax treatment of the parent company'.

the aim is to govern the movement and thus protect the tax revenues of the state. Next present some examples of this kind of mechanisms but also tax competition mechanisms. The latter are mainly national. We will now approach the question by analysing goals, mechanisms and actors on global, regional and national levels.

3.1. Global Level

3.1.1. Tax Treaties

It is natural that states have demonstrated a tendency to extend the powers of taxation in general as widely as possible. Most countries tax the income on the basis of both the residence status of the taxpayer and the source of income. E.g. Finland taxes residents on their worldwide income and non-residents on income received from Finnish sources. This causes international juridical double taxation. The income of a Finnish resident may also be taxed in the source country and the income of a non-resident may also be taxed in the country of residence. Foreign source income is thus taxed twice: once by the country of source and again by the country of residence.¹⁰ This inevitably causes double taxation. Its harmful effects on the exchange of goods and services and movements of capital, technology and persons are well known. There are two mechanisms which are used to alleviate or to abolish such double taxation. Firstly, most countries have domestic legislation which will partly or wholly abolish international double taxation. Secondly, countries have mostly made bilateral tax treaties with each other in order to abolish double taxation. It is clear that the objective of tax treaties, broadly stated, is to facilitate cross-border activities (trade, investments and mobility of persons) by eliminating the tax impediments to these cross-border flows (see Arnold and McIntyre, 2002, p. 105). Thus tax treaties are a good example of how countries can cooperate in the field of taxation to promote globalisation but also at the same time to govern globalisation. They are also a very widely used method; there are more than 3,600 bilateral tax treaties (see OECD, 2011a, p. 12).

In income tax treaties the treaty countries divide the right to tax certain income and if both countries levy tax, the treaty includes paragraphs on how the double taxation can be avoided. Tax treaties are based on reciprocity. This is one remarkable difference, if we compare tax treaties with tax competition. Despite this, tax treaties are at least to a certain extent also an instrument in tax competition. If a country has a wide tax treaty network, the country is assessed positively in tax

¹⁰ Such situations are called residence-source conflicts. It is the most common case of international double taxation. Another quite common conflict is that of residence-residence. This is the case when two or more countries regard the same taxpayer as tax resident in their country (see Rohatgi, 2005, p. 17).

planning.¹¹ A country with a wide treaty network may be seen as a good country in which to locate or in which to invest. This is because tax treaties will usually reduce withholding taxes of the source country or they may abolish them altogether. For example, for finance and holding companies it is important that the taxes they have to pay on interest, dividend or royalty inflows or outflows are modest.¹² Thus a country on participating in international cooperation may concurrently also have tax competition aspects in mind.

Although tax systems are designed by national legislators and tax treaties are a part of the national tax system the treaty law (tax treaties) is globally quite uniform (or well harmonised). This is due the system of Model Tax Treaties. There are two influential model tax treaties: (1) the OECD Model Tax Convention on Income and Capital and (2) the UN Model Double Taxation Convention between Developed and Developing Countries. The main difference between these two models is that the UN Model Treaty imposes fewer restrictions on the tax jurisdiction of the source country (Arnold and McIntyre, 2002, p. 109).

It is clear that the nature of Model Tax Conventions is soft law. The OECD or UN member countries may decide independently whether to conclude tax treaties and with whom they will do so.

The member countries may also deviate from the Model in their tax treaties. Nearly all OECD member countries have also made reservations on some provisions of the Model. At least the OECD Model indicates cooperation but at the same time adhering to the sovereignty of the Member States to their power to tax. However, this kind of purely juridical characterisation downgrades inequitably the influence of the OECD Model Tax Convention.

The OECD Model Tax Convention has a long history. The first version was published in 1963. Since then several revisions have been made. The success of the OECD Model Treaty has been incredible. First, OECD member countries have largely conformed to the Model Convention when concluding or revising bilateral tax treaties. Second, the impact of the Model Convention has extended far beyond the OECD area. It has been used as a basic document of reference in negotiations between member and non-member countries and even between non-member countries (see OECD, 2010, p. 10). One can say that virtually all existing bilateral tax treaties on income and capital are based on the OECD Model (Arnold and McIntyre, 2002, p. 109). Of course every treaty is independent and may include deviations from the OECD model but as a whole or at least

¹¹ E.g. the Netherlands has a wide treaty network.

¹² See Finnerty *et al.* (2007, p. 86), where they outline the key requirements for a holding company jurisdiction. They write: 'Ideally the holding company location would not tax dividends, capital gains, interest or royalty income. There would be no withholding tax on dividends, interest or royalty outflows and the holding company location would provide access to EC Directives and/or a strong network of double tax treaties, thereby eliminating or reducing withholding taxes on dividend, interest and royalty inflows?'

the mainlines of tax treaties are similar. Actually OECD member countries have only a weak obligation to adapt their tax treaty policy to the Model Convention and non-member countries have no obligation at all. However, from the point of view of countries which are negotiating tax treaties the influence of the OECD Model Convention is more than the influence of soft law and is approaching the influence of hard law.

There is still one remarkable feature in the OECD Model Convention. It includes commentaries on the provisions of the convention. These commentaries are a widely accepted guide to the interpretation and application of the provisions of existing bilateral treaties. Therefore the interpretation of tax treaties is quite uniform although each country has its own and different traditions concerning the interpretation of national tax laws. One can say that when the treaty is applied the influence of the commentaries in interpretation is more powerful than that of soft law, although commentaries can be categorised as soft law in jurisprudence.

As stated above, the main purpose of tax treaties is to eliminate double taxation. In this way tax treaties abolish tax obstacles to cross-border flows of goods, investments, capital and persons. Making these tax treaties promote globalisation and without them the world would be less globalised than it is today.

Double taxation is not the only problem of international taxation although it is a central issue for the taxpayer. Another important problem in international taxation and in the globalised environment is the international tax avoidance. Nowadays prevention of fiscal evasion is also a purpose of tax treaties (see Rohatgi, 2005, p. 25). This can also be seen in the titles of many tax treaties,¹³ and in certain articles of treaties. Treaties based on the OECD Model include limited anti-avoidance measures such as comprehensive taxation for residents (art. 4) and restriction on tax concessions on dividend, interest and royalty income only to beneficial owners (art. 10, 11 and 12). In this sense article 26 is very important. It contains the provision for the exchange of tax information between tax authorities. A recent addition in the OECD Model Convention is the new Article on mutual assistance in the collection of taxes (art. 27). These anti-avoidance features of tax treaties became more and more important as soon as cross-borders flows have increased and globalisation advanced. Because tax treaties normally include such anti-avoidance features, some countries or tax havens have not been willing to conclude tax treaties with other countries. On the other hand, a country with high tax rates may be willing to conclude a tax treaty with a low tax country if the information exchange article is included in the treaty. These anti-avoidance features of tax treaties especially show that they can be used also to govern globalisation. Because tax treaties are quite well harmonised law, this limited governance also has the same feature.

¹³ See e.g. Convention between the Government of the Republic of Finland and the Government of the United Kingdom of Great Britain and Northern Ireland for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income and capital.

3.1.2. OECD Transfer Pricing Guidelines and Transfer Pricing Documentation

The role of multinational enterprises in world trade has increased dramatically over the last 20 years. It has been estimated that 60% of world trade consists of trade within multinational corporate groups. Therefore transfer pricing issues are of the utmost importance today. Transfer prices are the prices at which an enterprise transfers physical goods and intangible property or provides services to associated enterprises (OECD Guidelines, 2010, p. 13) For example, if A Ltd manufactures goods in country A and sells them to its foreign subsidiary B Ltd, located in country B, the price at which that sale takes place is a transfer price. Because A Ltd is taxed on its profits in country A and B Ltd in country B, the transfer price affects how the total profit and taxes of the company group are divided between countries A and B. If the tax rate in country B is lower than in country A, it may, from the tax planning point of view, be profitable to set the transfer price as low as possible. Unless prevented from doing so, multinational enterprises engaged in cross-border transactions could avoid the income taxes of a country through their manipulation of transfer prices.

Each country wants to ensure that its legitimate rights over the tax revenues due from the activities of the multinational enterprises in its tax jurisdiction are protected. Therefore domestic tax laws usually include provisions for transfer pricing. It is an international custom that an appropriate transfer price of cross-border activities is set according to the so-called arm's length standard. This standard is met if the prices with associated enterprises are set so that the prices are the same as the prices used in comparable dealings with unrelated parties. This means that the transfer price should be 'market price'.

In order to protect their tax revenues countries have adopted the same standard in assessing transfer prices. However, the arm's length standard provides only little guidance as to how transfer prices should be established in concrete situations. The aim is in principle quite clear, but how to achieve it is very unclear. The companies and the tax authorities of different states may not be unanimous regarding the arm's length price. It is notable that different countries often have opposite interests in transfer pricing disputes and there is not only dispute between a taxpayer and a tax administration but also between tax administrations. In order to avoid the possible conflicts and international double taxation, the OECD has drawn up Transfer Pricing Guidelines for multinational enterprises and tax administrations. The Guidelines analyse the methods for evaluating whether the conditions of commercial and financial relations within a multinational enterprise meet the arm's length standard. Additionally the Guidelines discuss the practical application of those methods.

The Guidelines are targeted to tax administrations and multinational enterprises. They are to be categorised as soft law. Of course there may also be legal provisions including the main principles of the Guidelines. Even though the

Guidelines are not binding on the tax authorities they are very widely followed (see Helminen, 2009, p. 123).¹⁴ Certain states¹⁵ have their own transfer pricing guidelines. They largely follow the OECD Guidelines but may differ in details.

The OECD Transfer Pricing Guidelines include also a section which provides general guidance for tax administrations to take into account in developing rules and/or procedures on documentation to be obtained from taxpayers in connection with a transfer pricing inquiry. They also provide guidance to assist taxpayers in identifying documentation that would be most helpful in showing that their controlled transactions satisfy the arm's length principle. It is obvious that the documentation guidance of OECD is soft law, but it has become extensively hard law because in the last ten years many countries have added transfer pricing documentation requirements to their domestic legislation. These documentation requirements are usually quite well in line with the OECD Guidelines.

The EU Council on 27th June 2006 adopted a Code of Conduct on transfer pricing documentation for associated enterprises in the European Union (EUTPD). The EU Code is based on the OECD Guidelines. The purpose of the EU Code of Conduct is to standardise the documentation that multinational enterprises must provide to tax authorities on their pricing of cross-border intra-group transactions. The EU Code is a political commitment, but the documentation made according to this Code should be accepted in Member States. Thus the Code may be categorised to be above the normal soft law though it is not strictly speaking hard law. The EU Code is an example of how global soft law or governance by an international actor (the OECD) is channelled through a regional actor (the EU) to national level and the binding force of the soft law at the same time increases.

3.1.3. The Harmful Tax Competition Project and Exchange of Information

It has been said that harmful tax competition means competition for the location of profits rather than fair competition for the location of economic activity (see Timms, 2009, p. 3). Harmful tax competition is not a healthy aspect of a global economy, since it may result in investments and other decisions made solely on a tax basis and not on a commercial basis. Such distortions cause ineffectiveness from the global point of view and also in the light of economic growth. Such distortions caused by national tax laws should be abolished. The question is by whom and by which mechanisms this abolition is feasible because tax laws are national and states have sovereignty in fiscal matters. The OECD has offered countries a forum where they can cooperate in this field.

It is evident that globalisation has added the need for the international exchange of information in tax matters. Most countries have adopted the taxation of

¹⁴ See also HE (107/2006 vp, p. 5), where it is stated that the commitment with the OECD Transfer Pricing Guidelines is worldwide.

¹⁵ E.g. the United States and Germany.

worldwide income of residents. In order to be effective the tax system thus needs to be able to receive information from foreign jurisdictions. Otherwise the taxpayers could evade the tax of their state of residence by neglecting to report foreign income. The OECD has done a lot work in this field.

In 1998 the OECD report: *Harmful Tax Competition: An Emerging Global Issue* was published. The 1998 report contains recommendations to counter harmful tax practices. As part of the 1998 report, the OECD Council adopted Guidelines for Dealing with Harmful Preferential Regimes in Member Countries. Under these Guidelines the harmful features of preferential regimes in member countries must be removed within 5 years. In 2000, the OECD identified 47 preferential tax regimes in member countries as potentially harmful on the basis of the criteria contained in the 1998 Report and the guidance developed by the OECD Fiscal Committee on the application of these criteria (see OECD, 2006, p. 3). In 2004 it was reported that 18 of these regimes has been abolished, 14 had been amended to remove their potentially harmful features and 13 were found not to be harmful after further analyses. In 2006 it was concluded that there was only one regime which was harmful.¹⁶ The OECD's project concerning the harmful tax practices in member countries had been successful.

In its report *Towards Global Tax Cooperation* (2000) the OECD published a list of 35 jurisdictions which were found to meet the tax haven criteria of the 1998 Report (see OECD, 2000, p. 17). However, many of these had indicated an interest in the possibility of cooperating with the OECD by committing to the elimination of harmful tax practices. Therefore it was decided to prepare a list of uncooperative tax havens. If a tax haven did not make a commitment to eliminate harmful tax practices it would automatically be included in the list. In 2001 the tax haven work was modified. According to the new definitions a jurisdiction was not be considered uncooperative if it committed by 28th February 2002 to transparency and effective exchange of information for tax purposes (see OECD, 2001, p. 11). Seven jurisdictions did not make commitments to transparency and exchange of information at that time and were identified in April 2002 by the OECD's Committee on Fiscal Affairs as uncooperative tax havens. By the end of 2007 four of these made commitments and were removed from the list. In May 2009, the Committee on Fiscal Affairs decided to remove all three remaining jurisdictions (Andorra, Liechtenstein and Monaco) from the list of uncooperative tax havens in the light of their commitments to implement the OECD standards of transparency and effective exchange of information and the timetable they set for the implementation. As a result, no jurisdiction is currently listed as an uncooperative tax haven by the Committee on Fiscal Affairs.

¹⁶ That was the Luxembourg 1929 holding company regime. Since the publication of the 2006 Progress Report, the Luxembourg 1929 holding company regime has been abolished by legislation enacted on 29th December 2006, with transitional rules for certain existing beneficiaries up to 31st December 2010.

Although the aims of the OECD's project on harmful tax practices have been achieved, the work continues and non-OECD countries are also cooperating with the OECD in tax matters. The cooperation takes place within the Global Forum on Transparency and Exchange of Information for Tax Purposes. The Global Forum now (at the beginning of August 2011) includes 101 member jurisdictions. Membership includes all G20 members, all OECD countries and all major financial centres. The Global Forum ensures that all its members fully implement the standard on the exchange of information for tax purposes they have committed to implement. Member jurisdictions, but, if needed, non-member jurisdictions will be assessed on their ability to effectively exchange information. The internationally agreed standard on the transparency and exchange of information is primarily reflected in the OECD 2002 Model Agreement on Exchange of Information in Tax matters and in article 26 of the OECD's Model Tax Convention. Neither the Global Forum nor the OECD has the power to impose sanctions on countries that do not implement the standards. However, there is strong international pressure to implement standards. It is possible that individual countries will decide what actions they consider necessary to ensure the effective enforcement of their tax laws. The G20 has provided a list of potential countermeasures against non-cooperative jurisdictions based upon an analyses provided by the OECD.

It is clear that the Global Forum has successfully expanded the network of international agreements allowing for effective exchange of information (see OECD, 2011b, p. 9 and the Annex IX). Because exchange of information is an important tool in fighting non-compliance with the tax laws in an increasingly borderless world the success in this field is notable from the point of view governance of globalisation. Of course, even today a country may be one with low or zero income tax, but because of the exchange of information residents of other countries are not safe if they are trying to use the low tax country to evade their tax liabilities in their home countries.

3.2. Regional Level (EU Level)

3.2.1. Introduction

The EU is an example of a regional actor in governance. The actions taken in the EU exert influence within the EU and its Member States. The EU law is mainly implemented in Member States by the authorities of the Member States. Thus the EU and its Member States are intertwined with each other as actors of governance. In some areas of taxation the EU has succeeded in also including non-member states to cooperate so that it is possible to say that in these areas the EU, the Member States and also the cooperating non-member states are actors in governance. The Savings Directive, which we consider later, is such an example.

Tax directives may be only adopted on the basis of unanimity in the EU Council. In other words, all Member States must agree on measures adopted in the field of taxation. It is clear that Member States perceive fiscal harmonisation, especially in the field of direct taxation, as an infringement of their fiscal sovereignty. Therefore direct taxation directives have only limited scope. One can say that it is quite difficult to govern taxation and also tax competition by using EU-level hard law, i.e. directives, as a mechanism of governance. However, there has been some success (e.g. the Savings Directive and the directive concerning mutual assistance by the competent authorities of the Member States in the field of direct taxation) and just now there is an ambitious Commission proposal (the CCCTB directive). Another new proposal from the European Commission is the Proposal for a Council Directive on a common system of financial transaction tax.¹⁷ However, directives are not the only source of EU tax law. The articles of the TFEU are also applied to taxation. In the light of governance the TFEU includes an important hard law mechanism in the articles concerning state aid.

Soft law as a tool to govern harmful tax competition is also used in the EU. On 1st December 1997 the Council of Economics and Finance Ministers (ECOFIN) adopted the Code of Conduct for business taxation. The Code is not a legally binding instrument but it clearly does have political force. By adopting this Code, the Member States have undertaken to roll back existing tax measures that constitute harmful tax competition and refrain from introducing any such measures in the future ('standstill'). It is to be noted that this soft law tool has been used combined with hard law, i.e. with state aid provisions of the TFEU. The Commission has used the state aid procedure to pressurise the Member States in the rollback process of existing harmful tax measures of the Code of Conduct (see Bárbara, 2011, p. 273).

3.2.2. State Aid

The TFEU 107–109 articles include state aid provisions. According to the TFEU 107 (1) save as otherwise provided in the Treaties, any aid granted by a Member State or through state resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the internal market.

It is clear that tax provisions may also constitute forbidden state aid. Such state aid may be provided by decreasing the undertaking's tax burden in various ways. Firstly, a reduction in the tax base (such as special deductions), secondly, a total

¹⁷ The tax would be levied on all transactions on financial instruments between financial institutions when at least one party to the transaction is located in the EU. The exchange of shares and bonds would be taxed at a rate of 0.1% and derivative contracts, at a rate of 0.01%. See COM (2011) 594 final. The Commission has also explored ways to introduce a financial transaction tax at global level.

or partial reduction in the amount of tax (such as exemption) or thirdly, deferment, cancellation or even special rescheduling of tax debt. It is evident that special tax incentives may be forbidden state aid. There are also many cases where a special provision in the tax legislation of a member country has proven to be forbidden state aid. In that case the taxpayer may have to reimburse the aid received under the forbidden provision.

The state aid provisions of the TFEU restrict tax competition in the EU. The provisions are hard law provisions aimed at the legislators of Member States. They are also hard law from the taxpayers' point of view because they may have to pay back the forbidden aid. Therefore e.g. in tax planning, it is very important to know that the tax incentives to be used are not forbidden state aid.

3.2.3. The Savings Directive

In the EU there are quite many directives which are focused on specific income tax areas. Usually they seek to remove tax obstacles to cross-border activities. E.g. the aim of the Merger Directive is to avoid the imposition of tax in connection with mergers, divisions and with other cross-border transactions to which the Directive is applied. The Parent-Subsidiary Directive deals with the elimination of economic double taxation arising within a group of companies from cross-border distributions of profits. EU income tax directives thereby facilitate free movement and also globalisation, at least within the EU.

The Savings Directive differs from all other direct tax directives insofar as it does not seek to remove tax obstacles to cross-border activities. It seeks to ensure effective taxation of savings income and to protect national revenue from attempted tax evasion and fraud by EU nationals. This is pursued by obligatory and automatic exchange of information between the competent authorities of the Member States. When a paying agent established in one Member State makes an interest payment to an individual resident in another Member State the paying agent is obliged to report to the competent authority of its own Member State the payment and the detailed information of the beneficiary owner of the interest income. The competent authority of the paying agent, in turn, is obliged to forward the information gathered to the competent authority of the beneficiary owner's Member State of residence.

Some Member States considered that the information exchange system violated their system of banking secrecy. These states (Austria, Belgium and Luxembourg) were granted the concession of a transitional withholding tax regime.¹⁸ Instead of requiring paying agents established on their territory to exchange information, under the same circumstances and condition a withholding tax is carried levied. As of 1st July 2011 the withholding tax rate is 35%, which is quite high. Because

¹⁸ Belgium applies the exchange of information system as of 2010.

the tax rate is high it is less attractive for a beneficiary owner of the interest payment not to declare the income in his state of residence. If he declares the income, the withholding tax is wholly credited in the state of residence. Thus it is possible to receive a cash payment from the residence state if the tax rate there is less than 35% and if the income is declared. The Member State using the withholding system is obliged to pass 75% of the withholding tax to the beneficial owner's Member State.

The Savings Directive's coming into force was made subject to the concurrent application of measures equal those contained in the Directive by all dependent or associated territories of Member States and equivalent measures by five key European third countries (Switzerland, Liechtenstein, San Marino, Monaco and Andorra). Many of these jurisdictions are known as low tax areas. The EU concluded the agreements with these five countries and each Member State concluded a treaty with dependent and associated territories. After these treaties the directive entered into force on 1st July 2005.

From the point of view of the governance of globalisation the Savings Directive is an important example. It applies to income from interest which in a globalised world often escapes taxation. The taxation on interest income is also an area where countries have diverse opinions. It is quite often claimed that effective taxation of interest income exiles the capital to other countries where it is not taxed. To avoid this it was important for the EU to succeed in expanding the territorial scope of the Directive to some non-EU key jurisdictions. Of course, the information exchange system of the Directive is important, likewise the mechanism by which the information exchange system and the considerations of the bank secrecy of some Member States could be balanced.

3.2.4. Common Consolidated Corporate Tax Base (CCCTB)

Groups of companies doing business in many or all EU Member States face compliance and double taxation problems. They have to deal in principle with 27 different tax base determination systems and their administrative requirements. Cross-border activity within the EU is therefore facing administrative burdens and high tax compliance costs. This is in contrast with the single market. To avoid such problems the European Commission on 16th March 2011 proposed a directive for a common system for calculating the tax base of businesses operating in the EU: the Common Consolidated Corporate Tax Base (CCCTB).¹⁹

The CCCTB is a system of common rules for computing the tax base of companies which are tax resident in the EU and of EU-located branches of third-country companies. Specifically, the common fiscal framework provides for rules

¹⁹ COM (2011) 121 final, Proposal for a Council Directive on a Common Consolidated Corporate Tax Base (CCCTB).

to compute each company's (or branch's) individual tax results, the consolidation of those results, when there are other group members, and the apportionment of the consolidated tax base to each eligible Member State. The CCCTB would mean that the tax base would be harmonised.

Under the CCCTB, groups of companies would have to apply a single set of tax rules across the Union and deal with only one tax administration (one-stop-shop). A company that opts for the CCCTB ceases to be subject to the national corporate tax arrangements in respect of all matters regulated by the common rules. A company which does not qualify or does not opt for the system provided by the CCCTB Directive remains subject to the national corporate tax rules. These national rules may be more advantageous or more burdensome than the CCCTB rules. The CCCTB would mean fewer opportunities for tax planning by companies using transfer pricing or mismatches in Member State tax systems. However, the central tax planning question would be to opt or not to opt for the CCCTB.

The introduction of the CCCTB would harmonise the corporate tax bases of the companies to which the system is applicable. This would abolish tax base competition of the companies which have opted for the system. However, the system would be optional and there would also be the national system. It is obvious that there would be tax base competition between national systems and between national systems and the CCCTB. Of course the competition would be more complex than today, because there is a new challenger, i.e. the CCCTB, on the market.

The CCCTB would not harmonise tax rates. The taxable income of the group is divided to each member country and the tax due depends on the tax rate of that country. Thus there might be tax rate competition. As a whole tax competition would be more transparent than today because the tax base would be harmonised.

Currently, it is impossible to predict what will happen regarding the proposal of the Commission. One can assume that not all EU countries are willing to introduce the CCCTB system. It is possible that the system will be introduced in some Member States if there are enough such countries. The system includes tax consolidation. This means that the losses incurred in one member country may be deducted from the profits made in another member country. Many countries seem to doubt this kind of cross-border loss deduction. Therefore one alternative may also be a more limited system, a system without consolidation. This system would be CCTB. Such a system would also be one step ahead in tax harmonisation.

3.3. National Level

Globalisation causes pressure to change the national structure of taxation because international tax competition focuses on different tax bases differently. It is obvious that corporations and their profits are sensitive to tax changes and at the same

time also sensitive to tax competition. An enterprise may quite easily transfer at least some of its functions to another country. If the functions are transferred the future profits of this function are taxed in the destination country and the country of origin loses its tax revenues. It depends on the line of business how easily it or its functions can be transferred. It is to be noted that in the enterprise there are nearly always some functions which can be shifted although the main function, e.g. manufacturing, will remain in the home country. E.g. holding, financing, marketing, research and development activities and intellectual property right (patents, trademarks, know-how) are quite movable and also sensitive to taxes. The location of such functions and property will often have a material impact on the allocation of taxable income and the tax burden of a multinational enterprise. Therefore corporate tax rates are very important from the national point of view and they are also a key element in international tax competition.

The average corporate tax rate in 2000 of the OECD countries was 33.6% and in 2009 it was 26.3%. The drop is remarkable and indicates the pressure of tax competition. In small OECD countries corporate tax rates are lower than in big countries. The finance crises of 2008/2009 stopped the fall of corporate tax rates but there are signs that this stop was temporary. The UK Government in March 2011 published a radical plan to get the UK economy growing. One element in this plan is to create the most competitive tax system in the G20. This is to be achieved *inter alia* by cutting the corporate tax rate; the corporate tax rate will fall to 23% in 2014. After this e.g. the Netherlands and Finland have announced that they will also cut their corporate tax rates.²⁰

Although corporate tax rates have dropped there has not been a dramatic change in the ratio of corporate tax and gross domestic product. One reason for this has been the fact that at the same time the corporate tax base has been broadened. However, at the moment such broadening seems to be difficult and the trend seems to be to the opposite direction. Countries seem to compete by offering a narrowing tax base by which certain transactions are exempt from tax or are taxed more leniently than other income. One example of this is the participation exemption system. Under this system, the alienation of shares is tax-exempt in corporate taxation if certain requirements are met. Such a system has traditionally been included in the Netherlands tax system. Therefore the Netherlands has been a country where multinational company groups have located their holding companies which own the subsidiaries of the group. As a countermeasure, other countries have also included similar tax exemptions in their legislations. This also happened in Finland in 2004 although the official tax policy in Finland has been to retain the broad tax base of corporate taxation. The tax base erosion of corporate tax seems to be continuing. Many countries have special incentives for research

²⁰ There is often also domestic pressure to cut the corporate tax rate. The cut is mainly argued for by the claim that the drop will have a positive influence on economic growth.

and development (R&D) activities. As noted, before the location of intellectual property of a multinational company group may have notable influence of the tax burden of the group. Intellectual property is also easy to transfer from one country to another. Therefore there are countries which have special tax regimes for this kind of income. The outcome of this kind of 'patent box' provisions is that the income from intellectual property will be very low taxed income.

Reduction of corporate tax rates and narrowing the tax base are general measures within corporate taxation used in tax competition. There are also other kinds of competition measures, e.g. special taxes for certain industries. The tonnage tax is an example of these.

The shipping industry is very international and operates under tough international competition. It is easy to register a ship under a foreign flag and operate the ship by foreign company, maybe by a company organised in a low tax jurisdiction. There are many reasons why countries find it important that there is enough tonnage owned by resident companies and registered under the national flag of the country. Because of the nature of the industry and of the importance of the industry for countries, the shipping industry is very vulnerable to tax competition and also vulnerable to subsidies given by states.

The tonnage tax is a special tax regime for the shipping industry allowing shipping companies to elect to have their taxable income from shipping activities determined at fixed rates by reference to the tonnage of their ships, rather than by reference to real business profits. The tax may be very small compared to the real income of the company. Actually the tonnage tax is state aid to the shipping industry. In the EU such selective state aids are forbidden, but the European Commission has approved the tonnage taxes of Member States if certain conditions are met.

The tonnage tax system is very common in Europe. As first it was included in tax law in Greece. In the mid-1990s this model began to spread to other countries. Today it is used in Greece, the Netherlands, Norway, Germany, the UK, Denmark, Spain, Ireland, Finland, Belgium, France, Italy, Poland and Latvia. Because the tonnage tax is so widespread the competitive advantage within Europe of having this tax has at least partly disappeared. Of course, it is a disadvantage *not* to have tonnage tax.

Although tonnage taxes in different countries have similar features and they are intended to cut the tax burden of the shipping industry, there are still differences between national regimes. These differences may be crucial. The history of the Finnish tonnage tax is an example of these. The act was passed in 2002. However, it included some disadvantageous provisions compared to regimes in other countries and it also included some risks for the company if it opted for the system. Therefore by the end of 2009 only one fairly small company had elected to be taxed according this system. The share of the Finnish imports and exports handled under Finnish flag registered ships was constantly declining. The Finnish companies had registered more and more ships under the flags of Sweden,

Estonia, the Netherlands, Germany, the UK and the Bahamas. Thus the Finnish participation in tax competition had been quite unsuccessful. In order to stop the process the law has been reformed, but at the moment the European Commission has not yet approved the new provisions.

The tonnage tax is an example of a tax where the ‘race to the bottom’ in tax competition nearly came true. However, there are also opposite examples. A certain line of business may be seen as a new source of tax revenue. As such we mention the bank tax. The financial crisis of 2008 attracted interest in additional taxation for the financial sector. There have been discussions and plans by the G20, IMF (2010), in the European Union (see COM, 2010) as well as on national level to introduce a bank levy or bank tax and also discussions on introducing a financial transaction tax. Some countries have decided to adopt a bank tax or are at least actively considering introducing such measures. The UK, France, Germany, the Netherlands and Sweden are such countries. According to the programme of the new Finnish government, a bank tax will be adopted in Finland. The idea of a bank tax is that the financial sector should participate more in the costs of stabilising the financial system. The tax is based on the balance sheet of financial institutions and the revenue collected is used to set up a fund for future interventions or they are used as budget finance like other taxes. When adopting a bank tax it is obvious that countries will use the models adopted in other countries as one basis for their own solutions.²¹

The global financial crisis of 2008 required many governments to provide extensive support for their financial sectors. Bank taxes are to be seen as a reaction of this. To begin with the focus of bank taxes was to recover the direct fiscal costs of the recent crisis but later the focus has shifted to reducing and addressing the costs of future financial failures and crises. Bank taxes and the global discussion of such taxes is also a sign to the financial sector. Because the financial sector will bear the costs of the crisis by paying extra taxes this will probably reduce the probability of future crises. Besides corporate taxation, there are also other areas in income taxation which are sensitive to tax competition. The capital income taxation of individuals is one such area. However, there is one notable feature which restricts the influence. The capital income taxation of individuals is usually based on residence and therefore the foreign capital income is also taxed in the country of residence. In order to be effective the tax authorities must have sufficient information on the foreign income. Therefore the treaties on the exchange of information on tax matters are important. However, the effectiveness of capital income taxation in a globalised world is a problem, because there are tax planning opportunities, especially at international level.

²¹ The Dutch Government in July 2011 announced its plans to introduce a bank tax in 2012. It also announced that the tax would be broadly based on the UK bank tax and the levies in place in France and Germany.

Today these tax planning opportunities are easier to handle and may also be less costly than before.

The labour force is not as movable as capital and also not so sensitive to tax. The mobility of highly skilled persons is greater than the average. It seems that countries want to be attractive to these well salaried individuals and there is also tax competition in this field. Many countries have systems for foreign skilled persons which mitigate the tax burden of such immigrants compared to the burden residents of that state.

4. CONCLUSIONS

Tax competition and tax harmonisation are real challenges to the governance of global economy. It is also possible to approach the goals, actors and mechanisms of governance from different angles. Our analyses focused on different levels and different mechanisms of governance. Our conclusion is that there is no universal answer to the question: competition or harmonisation? The main reason for this is the fact that the benefits and disadvantages of globalisation, and also of the governance activities, are unequally distributed. Thus the attempts to govern the processes of global economy on national level may easily lead to tax competition. On the other hand, there are also examples indicating another kind of attitude. Many countries have included CFC rules in their tax legislation. These are intended to protect the tax base allowing the state to tax the income of a foreign company situated in a low tax jurisdiction if that company is wholly or partly owned by the residents of that state. Therefore channelling the income of a resident into this kind of foreign company does not have the tax advantages which the owner of the company has pursued. Globalisation makes it easy to use foreign companies situated maybe in low tax jurisdictions to escape the tax in the home country but CFC legislations are intended to block at least certain abusive practices. The USA was the first state to include CFC rules in its legislation and was later followed by Germany and some other big countries. Nowadays CFC rules are quite usual in national legislations. CFC rules illustrate how ideas and models of anti-abuse legislation may circulate from one country to another if the model is successful. One requirement for this kind of development may be that the model is first introduced in big countries like the USA, Germany, the UK and France.

Bank tax is possibly another example of tightening tax legislation from national level aimed at governing globalisation or its consequences. Compared to CFC legislation, bank tax is a new phenomenon and it seems to be spreading faster than CFC legislation. Maybe this is also a consequence of globalisation. New tax ideas from other countries will be adopted more quickly than before.

On the other hand at the supranational level, i.e. at regional or global level, the goals and mechanisms of governance seem to emphasise harmonisation and the prevention of harmful tax competition and tax avoidance. The problem in this field has been that in tax matters there has not been any forum for cooperation. Nowadays the OECD has filled the gap and has become an important actor or forum for cooperation in taxation. It has succeeded in many ways in preventing and reducing harmful tax competition. The soft law mechanisms developed by the OECD have been converted into the hard law mechanisms on national level. The tax treaty network is an old example of this and the exchange information agreements a new one.

At the regional level (EU) the governance activities have been based on both soft law and hard law mechanisms. However, the hard law mechanisms are difficult to use because the Member States are not inclined to abandon their taxation sovereignty. On the EU level it is also possible to use combined activities consisting of soft law mechanisms and hard law mechanisms. An example of this is the combination of the Code of Conduct for business taxation and the state aid rules of the TFEU.

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DEVELOPMENTS IN EDUCATION AND INTERNATIONAL MIGRATIONS IN NEW MEMBER STATES OF THE EU

Abstract: The paper examines the development of education systems and international migrations in selected new Member States. The countries are Estonia, the Czech Republic and Slovakia. The paper focuses on various elements in the development of education systems making people able to cope with competition on global labour markets. The outcomes of these developments largely regulate the supply of labour and consequently its international demand. Some statistics on international migration and integration of migrants in global labour markets are presented. The aim of this paper is to raise questions about relevant issues to be paid attention to in studies focusing on education and international migrations rather than to try to give any straightforward solutions.

Key words: education system, international migration, new Member State, EU, OECD, labour market, globalisation.

1. INTRODUCTION

The new Member States of the EU have experienced rapid and dramatic developments particularly in the 1990s but also in the 2000s. The change has gone through all societal sectors in response to the challenges of market economy and globalisation. In this paper, education systems and their development are the main topic, and labour markets are considered as global platforms for the mobility of human capital, that is, for the migrations of educated and skilled and less skilled labour. The three countries have been selected as examples of especially rapid development in Europe. The countries are Estonia, the Czech Republic and Slovakia. Developments have not been similar in all new Member States; in spite of the trends that are more or less common to all, every country is unique. Estonia, the Czech Republic and Slovakia serve as examples of

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sufficiently different Member States in a phase of dynamic development to give various perspectives to this study. Estonia is a country in the Baltic Sea Region in a dynamic phase of development while the other two are examples of those in Central Europe.

In this paper, education is seen as a condition for international migration of labour force creating, maintaining and renewing opportunities for migrations by making labour force able to cope with competition on global labour markets. While not going deep into the problem of the definition of globalisation, I start by referring to the editors' note on human mobility and globalisation presented in a book on globalisation (Kultalahti *et al.*, 2009, pp. 13–16): 'Globalisation may also be seen as a selective process differentiating the migration options of various ethnic, professional, educational and other population groups'. This note aptly defines the starting point of this paper; globalisation implies various processes, of which developments in education and human mobility are among the most important. It also refers to a strong interrelationship between these processes.

The paper is divided into two parts: (1) the development of education systems and (2) the development of international migrations, both immigration and emigration, in the selected three Member States of the EU. In the first part the development of education systems in the 1990s and 2000s will be described and analysed using mainly national, EU and OECD reports, documents and statistics. The aim is to identify similar and different trends in terms of the development of education and global competitiveness of the labour force. In the second part international migrations will be analysed by using data bases of the national, EU and OECD statistical offices. Emigrants' and immigrants' educational attainment, labour force participation, unemployment and matching of the education and job requirements of the emigrants from and immigrants to those three countries will be analysed. The focus is on whether the developments in education are reflected in international migrations. In addition to statistical findings the aim is to bring into focus relevant questions and research problems concerning international migration and the imbalance in the supply of and demand for labour.

2. DEVELOPMENTS IN EDUCATION

The development of education systems in the three countries under scrutiny has been different. Attention will be paid to the following aspects of education: changes in education (institutions, attainment, lifelong learning) and bridges between education and the labour market. These issues are closely related to international

human mobility and globalisation. Therefore in this paper the relationship between education and the labour market is investigated by focusing on the mobility and integration of educated labour force.

2.1. Changes in Education

The 1990s was a period of reform of entire societies and education systems were among the top priorities. In the mid-1990s the figures of investments in education were biggest and after the basic investments the expenditures declined. Estonia used 25.5% of its government expenditure for public education in the period 1995–1997 and the Czech Republic 13.6%,¹ while for the same purpose the developed countries invested about 10% of their respective expenditures (UNDP, 2000, pp. 194–195). These percentages reflect the different sizes of economies, both in absolute and relative terms. This explains the small figures in the developed countries, and also some of the differences between the then transition countries.

In Estonia the education system went through fundamental changes after the restoration of the independence at the beginning of the 1990s. In the 2000s, higher education was under reorganisation and the development reflects particularly the structural changes needed to meet the demands of global economy and culture, while it also characterises the fragmentation and competition of the Estonian higher education landscape; demographic pressure and economic difficulties challenged the renewal of the education system. As for higher institutions as such, the Estonian higher education landscape is diverse (see Rummo-Laes, 2007, p. 48; ECA, 2010, pp. 17–21).²

A problem concerning participation in education is the increasing gender imbalance in higher education, particularly in Estonia. Women account for a major proportion of the total number of students admitted to academic institutions and also of graduates, both in absolute and relative terms. The same tendencies appear on all levels of higher education. The increasing gender imbalance is also linked to the large number of students, particularly boys, leaving school before completing even their basic education. A similar tendency is also seen in lifelong education and in all adult education (see Randoja, 2009, pp. 81–83).

The recent economic recessions in the 2000s have caused problems. The following citations illuminate the situation. Rummo-Laes (2007, p. 45) concludes that there is stratification and a deepening contrast, related to the economic problems in the mid-2000s, between school standards and the values prevailing in society. This contrast is an essential reason for discontinuing education. The

¹ Data refer to the most recent figures available during the period 1995–1997 (UNDP, 2000, pp. 194–195). No corresponding figures available for Slovakia.

² On Estonia's state and private professional higher schools see e.g. <http://www.hm.ee/kogumik2009/en/> (SE, 2006, pp. 87–88).

Estonian Human Development Report (ECA, 2010, pp. 18–21) states that vocational education is not able to sufficiently produce qualified workers to meet the needs of the economic structures; actually the greatest weakness of the Estonian education and research system clearly lies in the problem of compatibility of the educational content with the needs of the people and the labour market. The other problems and weaknesses to be seen in the Estonian education policy are according to the report a danger that the companies necessary for future growth fields will leave Estonia or not come to Estonia, and brighter people may leave the country. In addition, quantitative educational indicators – which are good in Estonia – do not sufficiently reflect weaknesses in the quality of higher education resulting, from the point of view of the labour market, in so-called ‘formal over-education’, and the participation of adults in lifelong education lags behind the indicators for successful countries. Due to these and other reasons a risk exists that valuable human resources will be lost through discouragement and emigration.

The Czech and Slovak Republics had their basic institutions in common until the split into two independent states at the beginning of the 1990s. In this millennium, the Czech Republic shows an upward trend; the emphasis has clearly been on the public universities, which is reflected in steady growth in the 2000s. The same emphasis also appears in the number of student enrolments and graduates from the tertiary education level (OECD, 2009, p. 49). The review team reports both positive steps in developing study opportunities in tertiary education and persistent weaknesses concerning access and equity. Although the public funding devoted to student support is relatively modest, positive steps have been taken in housing support, scholarship programme for low-income students and in the social support system (see OECD, 2009). Weaknesses appear in the weak integration of planning, policy and analysis between the systems of secondary and tertiary education and in the form of student support. The report (p. 15) lists, among others, the insufficient internationalisation of study at most schools as a weakness manifesting itself in minor use of foreign literature in their original foreign languages, and in poor interaction between foreign students, few in number, and their Czech peers.

In Slovakia the developments followed somewhat different trends in the period 1995–1997; in relative terms, primary education received more and secondary education less resources than in the Czech Republic. The problem concerning the allocation of resources between the educational levels, compared to the corresponding figures in the Czech Republic, is probably related to differences in the internal structure of the secondary education in the countries. In Slovakia only about half of the students in secondary education attended grammar schools and specialised secondary schools that are the main sources for tertiary enrolments in the country. For this reason, according to the Slovak Ministry of Education in the 1990s, enrolments in non-vocational schools should rise at the expense of shorter

vocational secondary programmes (Čaplánová, 1999/2000).

As for the higher education system, Slovakia has undergone fundamental changes since the fall of the iron curtain. Several new universities have been established, others were merged from existing institutions. The number of students more than tripled by the late 2000s. However, in spite of this enormous expansion Slovakia's share of the population with tertiary education reached only 58% of the EU-25 average. The rapid expansion with the focus on student numbers and consequent institutional grants has implied other problems too, such as increasing drop-out rates, particularly in technical and natural sciences, lack of sufficiently differentiated qualification profiles and discrepancy between the distribution of graduates and demands of the labour market (see Jensen *et al.*, 2008, pp. 13–34).

The relationship between investments and developments in the education systems, and skill formation is complicated. Skill formation does not only depend on the material resources available but also on the consensus, values and other intangible resources needed in the development of knowledge and know-how. In addition, in the earlier phases of the development, smaller resources may lead to a greater relative change, sometimes even to a greater absolute change. It is reasonable to assume that the impulses based on social multiplier effects promote the development more than the available material resources alone give reason to expect. The figures concerning the resources undoubtedly set certain limits to the development, yet they easily also lead to excessively straightforward interpretations.

In the following, a few figures on educational attainment will be presented by referring to Eurostat statistics.³ The share of population having completed at least upper secondary education has grown steadily in each country. Given the different education systems the figures are not completely comparable between countries. The general trend is quite informative as is also the high level of the percentages.⁴ As for tertiary education, there are more essential differences between the countries. In Estonia the emphasis has particularly been on tertiary education; 30% of the population aged 15 to 64 in 2009 had tertiary education.⁵ In Slovakia and the Czech Republic the corresponding figures were less than 15%. In all three countries the trend is upward.

³ The indicator of educational attainment shows the percentage of the adult population (25–64 years old) that has completed upper secondary education. The indicator aims to measure the share of the population that is likely to have the minimum necessary qualifications to actively participate in social and economic life. It should be noted that completion of upper secondary education can be achieved in European countries after varying lengths of study, according to different national educational systems (see <http://www.stat.ee/29938>; Eurostat, 2010, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>, Statistics Database.).

⁴ Source: Eurostat, <http://www.stat.ee/29938>.

⁵ Source: Eurostat (2010), <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>

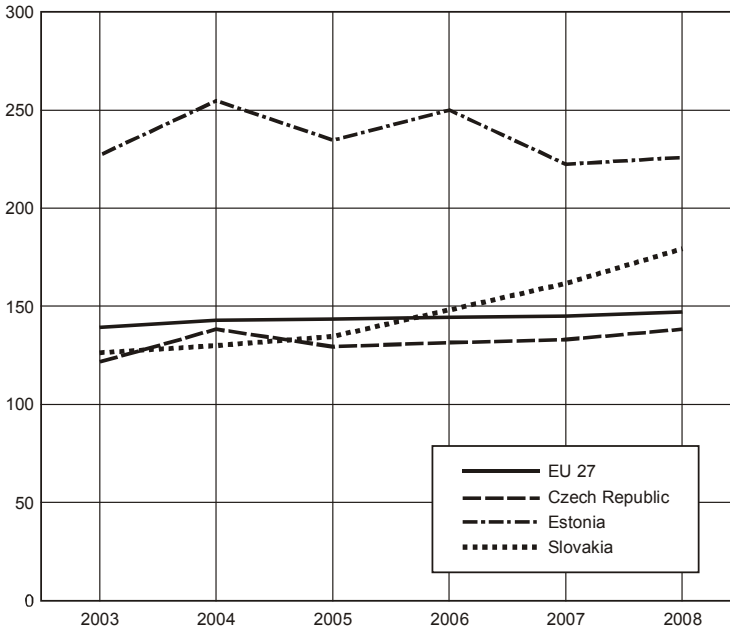


Fig. 1. Tertiary education graduates (women per 100 men)

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_itertc&lang=en

Differences between women and men are surprisingly great; in the EU27 there were about one hundred and forty-five female graduates per one hundred men in 2003 and the curve shows a slow but steady growth during the entire observation period up to 2008 (figure 1). There is a strikingly great difference between women and men in Estonia; the greatest ratio is 250. There is probably no simple explanation for gender differences. Studies indicate that the most pronounced gender difference in achievement is the advantage of girls in reading. On average girls read more and enjoy reading more than boys. The result is consistent across countries, different age groups, survey periods, and study programmes (EACEA P9 Eurydice, 2010). However, the differences between countries shown above indicate that there are other factors in cultures and local circumstances underlying these differences. For example, a report of the Statistical Office of Estonia (SOE, 2001, pp. 25–26) concludes that:

[...] the educational environment at the upper level of the basic school – the syllabi and the (predominantly female) teachers' teaching style – does not take much account of gender differences. All this leads to a high rate of dropouts particularly among boys. [...] Drawing conclusions on the basis of various figures without considering the background information may be very precarious.

For the labour markets the situation is different, the process is continuous and accordingly, the assessment of the benefit cost ratio is continuous.

Lifelong learning is another indicator reflecting people's desire to have command of their own lives. Naturally, this kind of desire for knowledge and skills is

also likely to make a migration decision easier. In this connection lifelong learning is considered to cover all purposeful learning activity undertaken on an ongoing basis with the aim of improving knowledge, skills and competence. The EU-27 data by Eurostat concern both formal education, i.e. part of formal education programme, and non-formal education and training (see Eurostat, 2010, pp. 269–276). The great majority of the respondents in the survey participated in non-formal education and training and most of the education and training was job-related, the main reason being to improve their career prospects (64%). Getting knowledge or skills relating to interesting subjects (51%) and getting useful skills/knowledge for everyday life (30%) were also common reasons.

The share of those aged 25 to 64 having received education or training in the four weeks preceding the EU Labour Force Survey is fluctuating but a rising trend is obvious in Estonia whereas in the two other countries the changes are only minor (figure 2). The year 2002 showed an exceptionally large share in Slovakia, coming down to the lowest value a year later. The Czech Republic and Estonia belonged to the group of Member States having high proportions of training enterprises and high intensity in continuous vocational training (CVT) courses. Slovakia was among the other Member States having high rates of training enterprises but relatively low intensity in CVT courses (cf. figure 2).

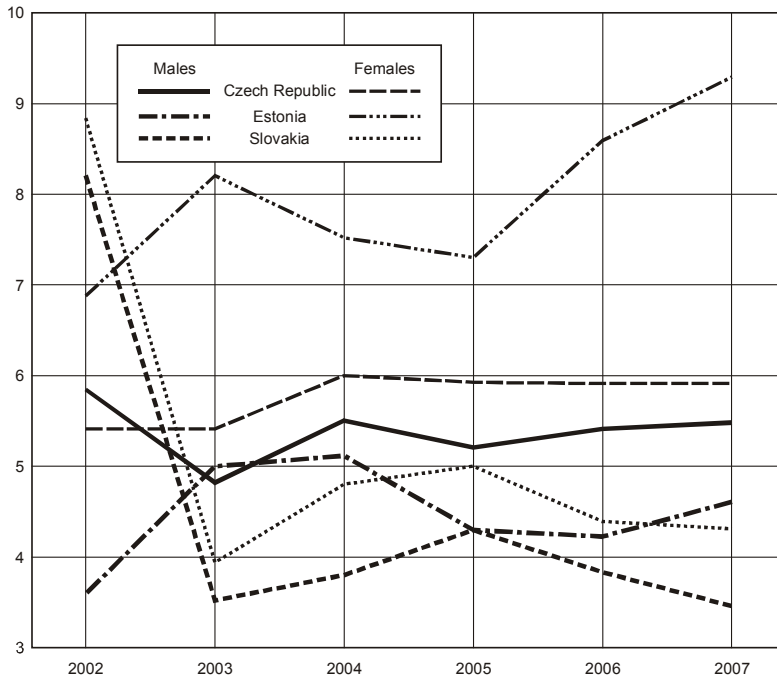


Fig. 2. Lifelong learning by gender, % of those aged 25–64 years in selected countries
 Source: Eurostat, <http://appsso.eurostat.ec.europa.eu/nui/setupModifyTableLayout.do>

Due to different education and training systems comparisons between genders in each country are probably more reliable than those between the countries. Figure 2 sheds more light on the recent trends in lifelong learning by gender in the three countries under scrutiny. In these countries females are more active than males, as in all EU-27 countries. Again, in Estonia the difference between males and females is the greatest; the rise in the share of those receiving education or training is primarily based on increased activity among females. In Slovakia the most recent years reveal a decline of both males' and females' activity.

As noted above, the reasons for differences between countries and genders are many and varied. The values prevailing in societies, developments in education systems, access to education and others explain much of these. One thing which has not yet been discussed is the role of benefits and costs as a motive for developing education systems on the one hand and participation in education on the other. An individual's and family's cost-benefit ratio often differs from that of the labour market or society as a whole (cf. Čaplánová, 1999/2000). For example, access to education and motivated studies profit both individuals and the labour markets. However, the reasons for improving educational opportunities are different, the labour markets wish to improve their competitiveness, workers wish to earn better incomes and have better working conditions. In practice, individuals and families are likely to pay attention to *immediate* and *expected* benefits. Participation in education is usually a long-term investment for an individual; a certain number of years are needed before there can be any return. The immediate benefits may be minor or non-existent, which undermines motivation to participate in education, particularly among those with meagre resources. An interesting question is whether the gender differences presented above reflect motives related to immediate and expected benefits.⁶

2.2. Bridges between Education and the Labour Market

Education systems give labour force basic chances to compete locally and globally for jobs, and by the same token they create conditions for the mobility of labour force from one job to another, from one locality to another and from one country to another. However, knowledge turns into skills only through experience and practice, and that is why cooperation between education and the labour market is needed both before students' graduation and while they are entering the labour market. Bridges between education and the labour market are essential. The Eurostat yearbook 2010 refers to these bridges by stating that 'learning is no longer given weight only in the area of education; it is also seen as a critical factor

⁶ Cf. figure 1 above and the discussion concerning the empirical findings.

in areas such as employment and social security policy, economic performance and competitiveness' (Eurostat, 2010, p. 269). Cooperation between the sectors of education and the labour markets is emphasised. While there are many ways for this cooperation⁷ in this paper another type of activity is selected to serve as an example of bridges between education and the labour market. In the following, the R&D sector in the three Member States and the EU-27 as a whole will be scrutinized from this point of view and some comparisons with Japan and the USA will be made.

The R&D sector has great relevance both in educating, practising and enhancing the progress of innovative thinking and improving the competitiveness of an economy. For example, the EU has put great emphasis on the development of research and development. According to the EU R&D 'comprises creative work undertaken to increase the stock of knowledge of man, culture and society and to devise new applications' (Eurostat, 2010, p. 584). It is a question of a strategy to become the most competitive and dynamic knowledge-based economy. Special measures are needed because, in terms of R&D investments, the EU still lags behind Japan and the USA. That is why the EU created the European Research Area in 2000; i.e. a unified area all across Europe which should promote researchers' mobility and interaction, share and use knowledge effectively, develop strong links with partners around the world etc. Country-wise this obviously implies, among other things, an increased international migration of people working in S&T (science and technology) occupations not only between the EU Member States but also globally to other regions. Barriers to migration are tempered by increased resources, knowledge and transferable skills.

Figures 3–6 show trends in the development of R&D in the 2000s from various perspectives. The increase in expenditure on R&D as a share of GDP in the EU-27 has been modest as a whole but between the Member States there are great differences (figure 3). Of the three countries under scrutiny the Czech Republic and Estonia have put emphasis on this sector but Slovakia, instead, has notably lagged behind in the development. As Jensen *et al.* (2008, pp. 17–18) mention, the Slovak Republic has not given R&D its prioritised attention. The average spending on R&D is noticeably low when compared to that in the EU-25, as well as are the average growth rates. However, the Report (Jensen *et al.*, 2008, p. 18) also sees a more optimistic side in these developments; government investment, while low in relative terms, has significantly improved in absolute terms and the conditions may improve rapidly in the future. In spite of significant differences between the countries, all of them are under the EU-27 average.

⁷ For example in Germany apprenticeships play a prominent role in skill formation, around two-thirds of each cohort spend two to three years of human capital accumulation jointly in school and with an employer (Tåhlin, 2007, p. 50; Dustmann and Pereira, 2005, p. 24).

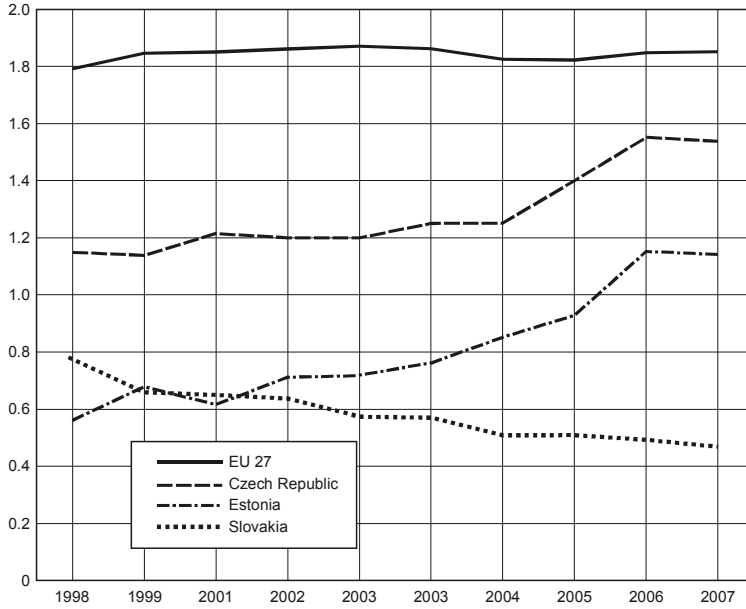


Fig. 3. Gross domestic expenditure on R&D (% share of GDP)
Source: Eurostat (2010, table 12.1)

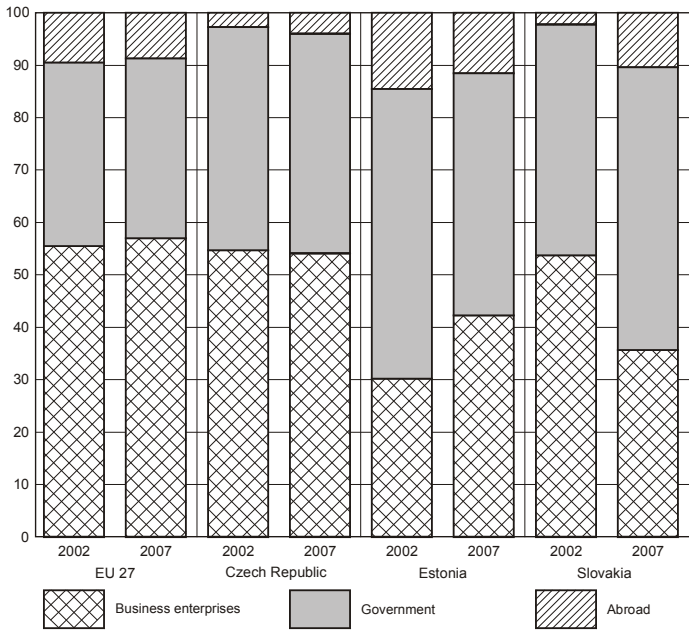


Fig. 4. Gross domestic expenditure on R&D by source of fund
(% of total gross expenditure on R&D)
Source: Eurostat (2010, table 12.3)

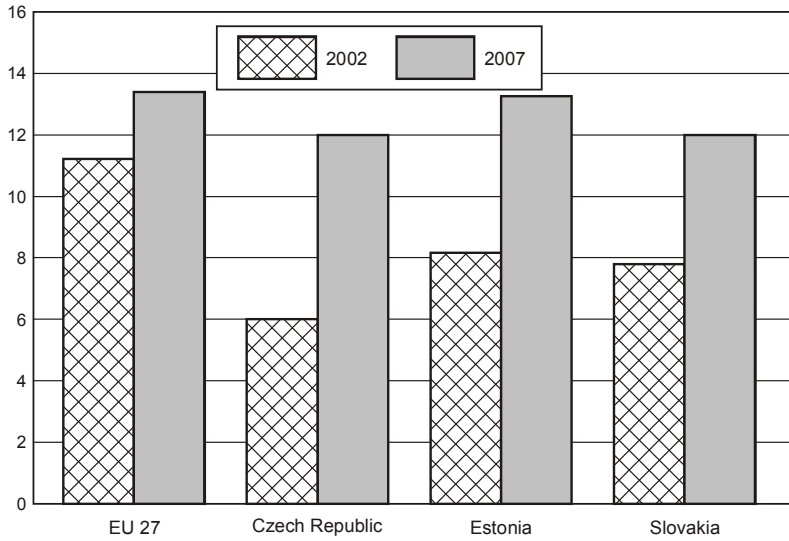


Fig. 5. Science and technology graduates (tertiary graduates in science and technology per 1,000 persons aged 20–29 years)
Source: Eurostat (2010, table 12.5)

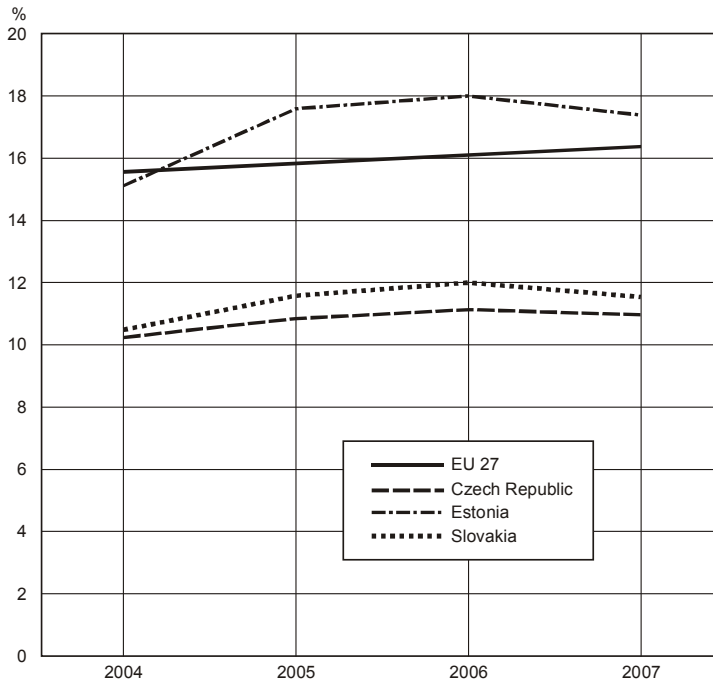


Fig. 6. Human resources in science and technology: people who have a third level education and work in a S&T occupation
Source: Eurostat (2010, table 12.7)

In the EU, gross domestic expenditure on R&D (% of GDP) lags behind that in Japan and the USA (Eurostat, 2010, table 12.2). In Japan this ratio is more than three, in the USA 2.5 and the EU-27 under two. Paying attention to this difference the Lisbon Strategy sets a goal for the EU to increase its R&D expenditure to at least 3% of GDP by 2010. The modest expenditure in the EU-27 is particularly due to the weak role of the business enterprise sector. So the EU states that 'Policy-makers in Europe have tried to increase R&D business expenditure so that it is more in line with the ratios observed in Japan or the United States' (Eurostat, 2010, p. 584). As for the roles of government and higher education sectors, there are hardly any differences between these major economic regions. More recent development (2009) shows that the EU is slowly advancing towards its 3% R&D target but still there is a widening gap between the EU and its world competitors. The reason for this is notably weaker business R&D investment (European Commission, 2011, p. 3). As for the growth of the R&D investment from 2000 to 2009 Estonia is among the top two countries with Portugal in the EU (more than 100%), the Czech Republic is ranked in a country group of 15% to 50%, while Slovakia is in a group remaining at the same level or decrease over the period 2000–2009 (European Commission, 2011, p. 49).

Although the situation in the EU as a whole is quite unsatisfactory, with the exception of a few Member States, business enterprises are still major investors when compared to funding by government and from abroad. More than half of all investments on R&D in the EU-27 are those of business enterprises; in the Czech Republic the situation is quite the same (figure 4). Slovakia followed this pattern in 2002 but 5 years later the share of business enterprises had declined and that of government increased. Estonia differs from these two countries in favour of a greater government share and to some extent also in that of foreign investments. Gross domestic expenditure on R&D by source of funding sheds light on the position of the countries in the global markets. As for the long-run economic development, investments in R&D by business enterprise sector are essential. A particularly dominating share of government funding in R&D might refer to a too weak business enterprise sector in a country to be able to invest itself or to attract funding from abroad. Naturally entrepreneurial or sectoral structures and many other factors are also involved.

In the long run the development of R&D expenditure in the new Member States under scrutiny reflects the profound societal structural change which was necessary after the collapse of communism in the early 1990s. The then stock of enterprises was unbalanced with no relevance to meet the demands of the global markets. There was no reason to expect any noteworthy investments from the business enterprise sector in research and development. Resources were to be obtained from all quarters in the country or abroad. In these circumstances governmental measures were obligatory. Estonia serves as a good example. When looking at the development of expenditures in Estonia in the 1990s it can be seen that in absolute

terms, the government funds increased their financing most, but in relative terms the growth of the productive enterprises' funds, the R&D institutions' own funds and foreign funds were largest (SOE, 2000, table 19). The R&D financing continued to grow and almost tripled from 1998 to 2004, the increase being strongest, in absolute terms, in the business enterprise sector. More specifically, while this sector's expenditures on R&D accounted for only 20% of the corresponding total expenditures in 1998, it was 39% in 2004. The growth in the business sector's expenses during the same period was more than five times greater than that of the total R&D financing (SE, 2006, pp. 90–93). The figures reflect the privatisation process and the development of the market economy.

The share of the graduates in science and technology among people aged 20–29 years increased modestly in the EU in the 2000s (figure 5). The proportion of graduates with tertiary education has grown from about 11% in 2002 to 13.5% in 2007. The growth has been particularly strong in the countries under observation; in Estonia from about 8% to 13%, in Slovakia from 8% to 12%, and in the Czech Republic from 6% to 12%. Estonia almost reached the average level of the EU-27 in 2007. Hence it is not surprising that the stock of highly educated people in the science and technology sector is in relative terms even higher than in the EU on average (figure 6) but even so it is still on a much more modest level than in the most advanced Member States (see Eurostat, 2010, table 12.5). In the Czech Republic and Slovakia the development has been similar and in both countries human resources in this sector clearly lag behind the EU average.

Finally, what are the potential conclusions concerning the development of education in terms of global competitiveness of labour force? The conditions for the mobility of the labour force are basically based on the national economies, particularly on their rapidly developed skill formation processes. That is why it seems reasonable to assume that, in spite of their certain shortcomings (see above), the capability of the education systems to produce internationally competitive experts for global markets has improved tremendously in the 1990s and the 2000s.

3. INTERNATIONAL MIGRATION AND LABOUR MARKETS

At the very outset it is important to note the complexity of international migration; it is a matter of flows of people and also implies intertwined processes having various impacts on migrants and the countries of origin and destination.⁸ As Jonkers (2011, p. 1) summarises, immigration plays an important role in helping developed economies to maintain and improve their standards of living while

⁸ For analytical approaches to research on international migrations see Kultalahti (2006, pp. 19–54), for the case of Estonia particularly pp. 43–48.

their societies are aging; highly skilled immigrants provide rare skills and boost innovation, low and middle-skilled immigrants perform work for which few native workers are available. These demands remain even in times of economic downturn. By the same token, one must not forget that it is not only a question of immigration but also of emigration. One way to understand this is to see international migration as circular, defined as ‘a continuing, long-term, and fluid pattern of international mobility among countries that occupy what is now increasingly recognized as a single economic space’ (Newland *et al.*, 2008, p. 2). Furthermore, circular migration involves several categories in terms of durations of sojourns, goals of migration and backgrounds of migrants: ‘Current patterns of circular migration fall into several categories: seasonal migration; non-seasonal low-wage labour; and the mobility of professionals, academics, and transnational entrepreneurs’ (Newland *et al.*, 2008, p. 1). What is important from the point of view of this paper is that international migration is not only a matter of either the country of origin or destination, instead it is often important, and also of a great use, to both of them.⁹ Keeping this reciprocal character and use of international migration in mind, this paper is confined to emigration and immigration, more specifically international migration and education providing labour force with skills competitive on global labour markets.¹⁰

In the following, international migration and labour markets will be discussed by focusing on the following issues: migrants’ educational attainment, labour force participation, unemployment, and how educational background and employment of international migrants match. In these issues the question is, with the exception of the first mentioned, about the integration of immigrants into the labour market of the new host country. Basically the issues are considered to reflect globally the performance of education systems in the countries of origin. This is not the whole question; many other factors are involved in the country of origin and destination. However, in the paper this limited emphasis is for practical reasons.

Migrants’ educational attainment gives an interesting starting point to discuss the relationship between education systems and international migration. By so doing emigration can be analysed and explained in many ways. One way is to focus

⁹ E.g. the following effects of international migrations can be mentioned: circular migrants’ augmented human capital to both of them; streams of remittances to the country of origin; positive correlations between the share of foreign direct investment in a developing country and the number of that country’s graduates present in the investing country; the more high-skilled emigrants from one country live in another, the more trade occurs between those countries; a recent estimate suggested that about half of skilled emigrants return, usually after about five years (see Newland *et al.*, 2008; UNDP, 2009, p. 77).

¹⁰ When talking about global labour markets it should be kept in mind that in spite of spreading globalisation, or because of it, territoriality and external borders are not disappearing. E.g. there are observations on a growing territoriality and strengthening external borders of the EU (see Vitale, 2011, pp. 17–27). This trend has obvious impacts on the numbers and structures of immigration flows from outside the EU.

on the performance of education systems, in which case emigration can be seen as a demand for educated workers on global labour markets or it can equally well be explained by a weak supply of jobs or poor working conditions in the country of origin. The question may also be of the timing of educational attainment; education may be partly or entirely obtained in the country of origin or after emigration in the new host country. The statistics used do not reveal this and anyhow explanations using aggregate statistics and general information always neglect some essential intervening mechanisms which would clarify the relationships. If one accepts this starting point, statistics like those presented in this discussion give interesting and hopefully useful angles from which to observe education and international migration.

For a start, there are special characteristics in the countries under scrutiny making them different examples. The change in Estonia has been one of the most radical due to its former status as a Soviet republic. Estonia has been resolute in her progress towards a market economy resulting in the peculiarities of migration fields in the country. A strong polarisation serves as an example. The change in some north-east towns was enormous due to the emigration of ethnic Russians and the changed status of the Russian minority remaining in the country. This polarisation can also be seen in regional development and internal migration. The development in the Czech Republic and Slovakia has to some extent differed from that of the former Soviet republic of Estonia. They both belonged to the socialist bloc and were dominated by the Soviet Union, but they never suffered the same ‘colonial politics’ as did Estonia. In the Czech Republic and Slovakia, the split of the former Czechoslovakia has been reflected both in internal migration and international migration between these countries (see Kultalahti *et al.*, 1999).

Table 1. Immigration to OECD countries and emigration rates by country of birth 2000–2002

Country of birth	Education of immigrants in OECD countries			Emigration rate ^a
	primary (%)	secondary (%)	tertiary (%)	
Estonia	26.6	36.6	30.6	12.2
Czech Republic	22.6	51.6	23.7	3.5
Slovakia	40.7	45.5	12.9	8.2

^a Emigration rate is the stock of emigrants from a country at a particular point in time expressed as a percentage of the sum of resident population in the country of origin and the emigrant population (UNDP 2009, p. 209).

Source: UNDP (2009, Statistical annex, tables A and C, pp. 206–207). In the UNDP report immigrants are presented as foreign-born international migrants in OECD countries by country of birth. Percentages do not add up to 100% as those whose educational attainment levels are unknown are excluded. Educational attainment levels: primary – less than upper secondary, secondary – upper secondary or post-secondary non-tertiary, and tertiary. Data are based on 2000–2002 censuses.

Table 1 focuses on the emigration rates by country and educational attainment of immigrants in the OECD countries from the three countries under observation. Emigration has been, in relative terms, greatest from Estonia (emigration rate 12.2) and smallest from the Czech Republic (3.5). It is important to note that emigration rates present data on migrant stocks, not the annual (or periodic) flows of migrants between countries (UNDP, 2009, p. 206). In other words, when looking at the stocks one does not know how each year (or period) has contributed to the result seen at a certain point of time.¹¹ This is particularly important to note in the analyses covering rapidly changing periods, such as those since the early 1990s in the new Member States. For example, Estonia's international migration in the 1990s was characterised by Russian emigration from Estonia.

The educational attainment of international migrants sheds more light on emigration from the three countries. Two noticeable trends emerge from the distributions between the countries (table 1); the highly educated emigrants to the OECD countries dominate international migrants from Estonia, and those with secondary education particularly from the Czech Republic but to some extent also from Slovakia. Demand for immigrant workers is certainly involved (e.g. the strong automotive industry both in Slovakia and the Czech Republic). On a general level one might also emphasise the adaptation of the education systems to global mobility of labour force, whereupon Estonian tertiary education and Czech secondary education emerge.¹² Another explanation is to refer to the role of working conditions, wages and supply of jobs matching the qualifications of job-seekers. Probably all these elements are involved.

Table 2 approaches this issue from another point of view; labour force participation of immigrants in the OECD by sex and education is in focus. These indicators are more closely related to the education systems and labour market of the country of origin than education as such. There are great differences in the labour force participation rates between the countries, and between both genders and educational groups. Labour force participation rates are measured as shares of those employed and unemployed of all immigrants from a certain country in the OECD; by the same token the measure also reveals the proportion of inactive immigrants, i.e. students, retirees and others. The three most obvious trends emerge in table 2: first, immigrant men from all three countries are more active than women in their labour force participation; second, the immigrants from the Czech Republic are the most and those from Estonia the least active; and third, activity increases along with more advanced education. A more detailed

¹¹ Statistics based on the OECD data basis (DIOC) suggest that a great majority of immigrants in the OECD countries from the three countries had, in the turn of this millennium, stayed in their host country more than 10 years, i.e. they emigrated from their countries of birth before the collapse of communism.

¹² For Estonia see ECA (2010, pp. 18–21), for the Czech Republic see Jensen *et al.* (2008, pp. 13–44).

examination of the table reveals that differences between men and women are smallest among the immigrants with tertiary education. Only about one out of four immigrant women with primary education is active in working life. Not surprisingly, higher education clearly strengthens immigrant women’s chances of going out to work.

Table 2. Labour force participation rates of immigrants in OECD countries by country of birth, sex and educational attainment 2000–2002 (see table 1)

Country of birth	Labour force participation rates of immigrants in OECD countries ^a					
	primary education		secondary education		tertiary education	
	men	women	men	women	men	women
Estonia	34.7	28.8	47.7	36.3	53.0	49.3
Czech Republic	44.3	25.2	67.8	52.4	73.0	71.0
Slovakia	41.3	24.6	64.2	54.6	70.3	68.8

^a Emigration rate is the stock of emigrants from a country at a particular point in time expressed as a percentage of the sum of resident population in the country of origin and the emigrant population (UNDP 2009, p. 209).

Table 3. Unemployment rates of immigrants in OECD countries by country of birth, educational attainment and sex (see table 1) 2000–2002

Country of birth	Unemployment rates of immigrants in OECD countries					
	primary education		secondary education		tertiary education	
	men	women	men	women	men	women
Estonia	12.5	18.0	13.7	13.9	6.6	8.2
Czech Republic	32.2	29.2	11.4	10.4	3.3	4.0
Slovakia	39.3	31.0	10.6	11.1	3.1	4.8

Education also contributes to a smaller risk of becoming unemployed (table 3). Among the immigrants in the OECD countries from the Czech Republic and Slovakia, primary education is related to exceptionally high unemployment rates (30% to 40%) but these rates plummet among the immigrants with secondary education and even further among the most highly educated. What is rather interesting is that among the immigrants from Estonia in the OECD the unemployment rate depends less than one might expect on the level of education, particularly among men. The differences between genders and education are also noteworthy; while immigrant men with tertiary education from all three countries have lower unemployment rates than women, gender differences are not as consistent as at the lower educational levels.

The OECD statistics¹³ also enable the study of employment and unemployment rates among immigrants with tertiary education by field of study around the turn of the millennium. The statistics do not cover all OECD countries; only sixteen such countries of residence are included. Given this restriction, some interesting results emerge. The average unemployment rate of all immigrants with tertiary education is 10.9% among the immigrants born in Estonia, 4.5% among those from the Czech Republic and 3.4% among those from Slovakia.¹⁴ A more detailed examination by fields of study reveals some interesting differences between educational fields. Regarding Estonia, the major successful fields of study were education; arts and humanities; and science, whereas social sciences; health and welfare; services; and engineering, manufacturing and construction contributed, in relative terms, to a high unemployment rate.¹⁵ Correspondingly, successful fields of study for those from both the Czech Republic and Slovakia seemed to be education; engineering, manufacturing and construction, and health and welfare, while the unsuccessful ones were agriculture and services. The following fields show up differently: arts and humanities is a successful field of study among the immigrants from Slovakia but not from the Czech Republic, whereas social sciences, business and law, and science are successful among immigrants from the Czech Republic but not from Slovakia.

When trying to explain these results one should keep in mind first, that these comparisons are made in relation to the average of each immigrant group by country of birth not between these countries, second, that studies may have been undertaken in the country of birth, in the country of residence or in both, third, that only some of the OECD countries are involved. Given these restrictions, it seems obvious that immigrants in the OECD from the Czech Republic and Slovakia have benefitted from their joint history implying many cultural and other features in common; the statistics show that both of these countries have a majority of immigrants from the other country. An example of similar features on the labour market making it easier for immigrant workers to integrate into the neighbouring country is the automotive industry. The Prague Post of 29th June – 5th July 2011 released a news item on the tough competition with Slovak car-manufacturing: ‘The Slovak automotive industry has muscled its Czech competitor out of the world’s top spot for cars produced per 1,000 inhabitants’. The news refers to the fact that both countries have similar strong industries. Given that the Czech Republic has a majority of its immigrants from Slovakia and vice versa, these

¹³ <http://stats.oecd.org/Index.aspx?lang=en#> – Migration Statistics – Database on immigrants in OECD Countries (DIOC).

¹⁴ Database on Immigrants in OECD Countries (DIOC) concerning e.g. those in the USA, is inadequate for the purpose of this article because immigrants from the Czech Republic and Slovakia are categorised as being born in the former Czechoslovakia.

¹⁵ A field is considered successful or lucky if immigrants with studies in such a field have an unemployment rate which is below the average level of all immigrants having the same country of birth.

industrial similarities have very likely contributed to the low unemployment rates of immigrants in both countries already at the turn of the millennium.

Table 4. Labour market outcomes of the native-born and foreign-born by country of residence

Labour market outcomes	Estonia		Czech Republic		Slovakia	
	2000–2004	2005–2009	2000–2004	2005–2009	2000–2004	2005–2009
Employment/population ratio						
Native-born men	64.8	69.0	..	74.2	..	67.5
Foreign-born men	70.2	75.1	..	74.0	..	71.7
Native-born women	57.8	63.8	..	57.0	..	52.7
Foreign-born women	59.1	68.8	..	54.4	..	49.7
Unemployment rate						
Native-born men	11.9	8.7	..	5.2	..	11.5
Foreign-born men	13.0	9.6	..	7.7	..	10.4
Native-born women	10.1	6.3	..	7.7	..	13.7
Foreign-born women	13.1	8.4	..	12.6	..	15.4

Source: SOPEMI (2011, Estonia p. 277, the Czech Republic, p. 273, Slovakia, p. 319).

Recent statistics on the labour force participation (employment/population) of *immigrants in the countries under observation* reveal something about the development of the labour markets in this millennium. Table 4 includes comparisons between the native and foreign-born employment ratios and unemployment rates. Estonian statistics are available both for the first and second half of the 2000s; the Czech and Slovak statistics concern only the latter half. Hence comparisons between the countries over the entire decade are not possible, but even so the Estonian statistics reflect the development in an interesting way. The general trend in Estonia can be seen as an adaptation to global challenges; the employment/population ratios and unemployment rates improved both among the native and foreign-born in the 2000s. As for the employment ratio, the position of the foreign-born, good even earlier, improved further in the late 2000s and the differences between men and women among the native- and foreign-born diminished.

The statistics for the late 2000s reveal no major differences between the countries but one difference emerges; while in Estonia the employment ratio is higher among both the male and female foreign-born than in the corresponding groups of the native-born, in the other two countries the trend is not seen. Additionally, the employment ratio is higher among both the native and foreign-born females in Estonia than in the other two countries (table 4). These findings are obviously

related to general cultural and religious values being more favourable to women's remaining at home in eastern and southern Europe than in northern and north-eastern parts of Europe. What is interesting is that the phenomenon can also be seen among immigrants.

Table 5. Over-qualification rates of native and foreign-born populations (Censuses and Population Registers, Population 15+, Circa 2000)

Specification	Over-qualification rates (percentages)			
	total	native-born (A)	foreign-born (B)	B/A
Czech Republic	5.8	5.6	9.6	1.7
Slovakia	26.9	26.9	24.5	0.9

Source: SOPEMI (2007). The report uses two different sources for the data (Survey Data and Censuses and Population Registers); percentages differ depending on the source used, but the general trend remains the same (SOPEMI, 2007, p. 137). Data for Estonia not available.

One of the most interesting questions concerning immigration and the labour market is, in addition to the employment and unemployment rates, how well the educational backgrounds of migrants match the skills required in their jobs in the host countries. An OECD report (SOPEMI, 2007) analyses this issue and finds interesting results although the analyses are limited due to the scarcity of the data. The data concern the period 2003–2004 and focus on the problem of *over-qualification* of both native and foreign-born populations, i.e. a worker has a higher education than his/her job requires.¹⁶ The report examines over-qualification with a normative-type measure based on the correspondence between level of education and qualifications for the job held. One of the key findings of the report is that immigrants are more over-qualified than the native-born in the OECD countries. However, the differences between all OECD countries are great, ranging from the very lowest percentage (5.8%) in the Czech Republic to the highest (26.9%) in Slovakia (table 5). The high over-qualification in Slovakia suggests that education and the needs of the labour market are not well matched (cf. table 4). The problem of over-qualification concerns particularly the foreign-born populations in almost all OECD countries, but seems to affect the countries of southern Europe (Italy, Greece and to a lesser extent Portugal and Spain) and some countries of northern Europe (Norway and Sweden) more seriously (SOPEMI, 2007, pp. 137–138). The report evinces several arguments for this phenomenon. First, in southern Europe, immigration is a recent phenomenon, and consists of workers who are willing to accept unskilled jobs upon arrival in the hope of later advancement. Second, for material and sociological reasons immigrants are more willing to accept jobs for

¹⁶ On different approaches to the over-qualification problem, see SOPEMI (2007, p. 135).

which they are over-qualified. Third, legal and regulatory aspects (e.g. work permits, and access to citizenship) may limit job opportunities, particularly temporarily at the beginning of their stay.

It is not easy to draw a straightforward conclusion about the adaptation capacity of the education systems and the labour market to global challenges in terms of international migration. Conclusions can at best be various notes on their developments simultaneously with growing globalisation. The first note emanating from the above concerns emigration and the education/skills of emigrants; Estonia seemed to be a sending country particularly for highly skilled people at the turn of the millennium, which may indicate an imbalance between the education system and jobs available or it may indicate a great demand for the skills produced in the country. In the case of circular migration the development may prove to be beneficial for Estonia in terms of augmented human capital (see above; Newland *et al.*, 2008, pp. 1–2). Pungas *et al.* (2011) recently researched the intentions of the Estonian emigrants to Finland to return to their home country. They found that the level of education is not directly related to the inclination to return. More important was over-education (over-qualification) in the host country and to some extent also vocational education. Education in the host country seemed to improve the prospects for social integration – and obviously to lessen intentions to return. The results do not undermine the role of education in circular migration, or international mobility in general, but emphasise its complexity. Taking into account the smallness of the Estonian population, economy and the recent history of the nation, the migratory indicators used above were well in accordance with global challenges and revealed no surprising trends.

The statistics presented above showed that in the Czech Republic the emigration rate was low, labour force participation rates on a medium level and unemployment rates among highly educated immigrants in the OECD low, over-qualification rates of the foreign-born in the Czech Republic were low. Thus, most of the indicators were satisfactory when compared to the OECD countries. In Slovakia, the over-qualification rates both among the native and foreign-born were relatively high. As among the emigrants from the Czech Republic, tertiary education contributed to the Slovakia-born emigrants' low unemployment rates and primary education to notably high unemployment rates.

4. DISCUSSION AND CONCLUSIONS

Global challenges apply to needs to develop education and labour markets. Successful responses to these challenges have positive impacts on the balanced development of international migration improving the conditions for economic and social growth. For example, positive feedback from emigration in the form

of circular migration of medium and highly-skilled people increases the human capital available both in the countries of origin and destination; increasing seasonal and temporary migration basically gives positive economic impulses in the home country. As mentioned above there is also evidence on the growth of trade between those countries, as well as of direct investment from the host country, just to take a couple of examples. One might assume that the less cultural and other ties between the countries of origin and destination there are the stronger the role international migrants play in increasing trade between the countries and direct investment from the country of destination. So, for example, trade and investment between Estonia and the Nordic Countries, particularly Finland, are based on cultural and historical ties rather than migration. Whereas major migration streams between a culturally and otherwise distant African and European country could be expected to bring those countries closer even in terms of economic interaction.

There is no straightforward relation between education, labour markets and international migrations; many intertwined mechanisms are involved. Hence there are no explicit explanations for the relationships of such phenomena at aggregate levels, and more detailed analyses and different types of databases would be needed. A logical consequence is that a study of their relationships at this general level cannot be deductive in such a way as to end up with unambiguously verifiable conclusions. However, such a study on an aggregate level may bring into focus relevant questions and research problems.

The three new Member States of the EU offer an exceptional and almost experimental opportunity for this type of approach. Most of the societal developmental processes broke down or at least fundamentally changed two decades ago. Entirely new directions were taken in nearly all sectors and fields of society and such profound changes followed that took several decades if not a century in the old Member States. The pressure for change came from transforming socialism into a market economy on the one hand and the challenges of globalisation on the other.

The starting points of the three countries under scrutiny were not the same. Estonia was forced to start from the greatest need for change; in some sectors the country had to start more or less from the very beginning. For example, launching new education systems and institutions necessitated thorough organisational reforms and investment, reflected in the greatest shares of GDP among the three countries. A very rapid development characterised all three countries but the emphases on various sectors varied. In relative terms, Estonia emphasised tertiary education, the Czech Republic secondary and Slovakia primary education in the 1990s when measured by investment shares. Not surprisingly, the stock of those with tertiary education in Estonia exceeds the corresponding shares of the other two countries. The same trend concerns emigrants.

Another trend emerges in a comparison of education between genders; the Czech Republic gains most points in equality between men and women. In Estonia the difference is the greatest in favour of women's domination in tertiary

education and lifelong learning. The difference is universal raising the question whether men are more eager than women to have immediate benefits by dropping out of education and going for better paid work in some other country? The especially wide gap between Estonian men and women makes one consider it exceptional because Estonia emphasises equality in access to education. Whatever the reasons, the results presented above call for further questions and analyses of the problem. A high over-qualification rate in some OECD countries, e.g. in Slovakia, is another problem emerging both among the native and foreign-born populations which raises the question whether the country's education system is properly geared to respond to national or global demands for labour.

At least a few questions, in addition to those above, can still be mentioned. For example, how to develop education systems so as to adequately motivate all population groups to participate in education? Another demanding issue to be resolved is education and a suitably balanced supply of and demand for skills in spreading and intensifying globalisation. Apart from individual profits and problems, the question largely reverts to the competence of the national labour market to derive benefit from the international mobility of both less and more skilled migrants.

Education and international migrations have been in the focus of serious debates and numerous analyses but their relations as responses to the challenges of globalisation have seldom been properly dealt with. This paper can be considered as an attempt to raise relevant research problems and policy issues concerning these relations rather than as an attempt to propose solutions.

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OPEN INNOVATIONS AND LIVING LABS: PROMISES OR CHALLENGES TO REGIONAL RENEWAL

Abstract: The paper brings to the foreground modes and strategies of organising purposeful action that may be conducive to local and regional actors' successful coping in the more and more competitive environment. The paper is pragmatist by its approach in a sense that it emphasises preconditions and possibilities for making ideas work. However, to do this is a difficult task. In the maze of multifaceted information flows and revolutionary technologies for reaching them enterprises and public actors need to find and construct better structured information that really helps them to operate. The paper introduces two sets of case activities that build on open innovation and living lab approaches in their attempts to make the boundaries between organisations and their environment more permeable. Its findings support the structuralist idea that spatial attributes matter more than as a mere venue, platform, or even container of social action. The venues studied in the paper are unique: one of the oldest still remaining factory buildings in the innermost core of the city of Tampere and a re-used loghouse in a peri-urban landscape outside the city. They both serve now as true exploratory spaces with no functional or institutional lock-ins stemming from them to bond their present-day users.

Key words: industrial renewal, spaces of innovation, new work.

1. INTRODUCTION

This text scrutinises emergent Finnish innovation ecosystems by focusing on two processes in their peculiar environments. These processes utilise work methods that defy and cut across established organisational boundaries and *thoughts of the contents* of established organisational boundaries. One of them, a concept known as 'New Factory' in the old industrial core of the city of Tampere, is used as a tool to adjust local economy to a global structural transformation. The other one is

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built on a large-scale urban research and development process *Urbi et Orbi*. This process takes place in the municipality of Lempäälä in the Tampere city region, being an ambitious attempt to solve the problem of empowering various stakeholders and other actors¹ in a process of reconstructing a well established townscape laden with cultural values, personal attachments and other potential sources of a profound planning conflict.

New Factory accommodates a range of activities both designed as tools and evolved as potential approaches for a local economy's latest, knowledge-intensive industrial transformation. Some of them have an immediate link with the city hall and its local business development and employment policy interests. One of them, the HUB Tampere, is a member in an international, London-led network of related entrepreneurial spaces available for new kinds of businesses with a distinctive aspect of personal achievement and devotion to the fulfilment of youthful visions. What is common to virtually all of these activities is that they utilise work methods derived from the broad realm of open innovations ideology.

Urbi et Orbi highlights the power of a carefully balanced combination of detachment and team leadership. While it is a process for urban development and reconstruction of built environment, it also is simultaneously a knowledge-creating process with a proclaimed attempt to bring together different actor-specific approaches to the needs and eventual conflicts in community development. A high-level executive task force has been nominated to run the development process, and to make the necessary preparatory phases for public decision-making. A relatively limited task force immediately raises questions on the eventual decision-making biases that need to take into account as the group organises its work.

Both processes take place in peculiar locations specifically assigned to them with an assumption that place-specific attributes contribute to the character and outcome of activities carried out within them. Thus, the actual unfolding of the local economic renewal processes are viewed through at least partly emergent formation of an actor community re-using old industrial premises, now purposefully dubbed as the 'New' Factory. The planning and empowerment case, the *Urbi et Orbi*, is viewed through the activities carried out by an executive task force particularly organised for the reconstruction process. The task force meets weekly in premises exclusively reserved for two causes, to facilitate (1) meetings with specialists for in-depth discussions and (2) retreat from the daily work and organisational environments for the executive task force's own deliberations and considerations.

¹ Including e.g. the local dwellers and their various associations as well as enterprises, but also offices and functions within the municipal governance structure, such as schools and their teachers, who do not normally participate in physical planning and urban development processes.

2. TRANSFORMATIONS IN QUESTION: SPACE AND SPACELESSNESS

The two cases discussed in this paper have their roots in transformations faced in Tampere Metropolitan Area in South West Finland. Tampere used to be the birthplace of the large-scale industrial revolution as it reached Finland in the early 19th century. From a modest beginning in 1779 – being explicitly founded as a city for industry and commerce – Tampere gradually grew to be the second-largest regional centre in Finland. The Metropolitan area now has a population of more than 350,000, of which approximately 215,000 live in the city of Tampere itself.

Developments have not been always smooth. Oil crises, restructuring and globalisation are among developments that have challenged traditional industries all around Europe and worldwide, and Tampere with its industrial heart having traditionally beaten in the rhythm of textiles and mechanical engineering is certainly no exception. In the late 1960s the local authorities started to promote new thinking in the city's industrial future with areas such as leisure-related services, research and higher education being put in more and more focal position. By the 1980s it was obvious that the attempt to break away from the traditional industrial path (with all its past success) had been an absolute necessity, and that remarkable success was reached in this respect.

But how obvious is it that such transformations turn out to be successful? For the first, a great deal of European cities with one original main industry or function, be it specialised industry or even seaside resort, have lost their relative importance in the course of history and socio-economic change (Clark, 2009). However, as Smith (1993, p. 55), building on the foundations of structuralist geography, notes, a continuity can be found linking the historical functioning of old industrial capitalism and the forms of flexibility reflected by the projects and processes built upon them.

Thus, even if the postmodern era is strongly associated with breaking of past spatial boundaries (Smith 1993, p. 57), building boundaries, or making space relevant can be seen as an equally quintessential feature of a postmodern world. The idea of how space, location and spatial continuity matters in changing circumstances is captured in an intriguing way by Forsberg *et al.* (2006, p. 164). They maintain that the Inner Scandinavian locations whose traditional productive role was focused on forest and agricultural products, now 'produce' also rural cultural landscapes and protected nature. A new relevance that can be attached to the spatial attributes may be found, but that may require a great deal of persistent work and even a degree of serendipity, of which location, a spatial attribute itself, is not unimportant.

Juha Kostiaainen (2002) has studied extensively the developmental dynamism of Tampere and the various management and leadership measures taken in order to enable the preferred development. He has traced the transformation process of the industrial centre to a knowledge-creating one, a process that has required

particular leadership in an environment where representatives of traditional industries have been the key players in the local business lobby. At least partly due to the excellent location of Tampere in the crossroads of the most important Finnish transportation channels the transformation proved very soon to be successful.

As an indication, highly appealing to local decision-makers one can take the demographic changes. Tampere with the entire city region has grown continuously irrespective of the business cycles or fluctuations in the overall mobility rates. The city region seems to 'respond' similarly to economic growth and downturns: the region's population has grown in a surprisingly constant rate (cf. Kultalahti, 2001), constituting thus one rather persistent fundament for those in charge of preparing land-use decisions to adjust to demand from the new dwellers, or estimating the availability of future workforce. These two aspects are among the forces that keep the region's development in a highly dynamic state and provide even some immediate buffers in the face of downturns. They may even extend the period when important parts of the market can remain viable and relatively intact.

One part of the local dynamism is birth and development of practices that favour interaction across established organisational boundaries. Openness and participation are generally seen as defining features of highly industrialised, post-industrial or technologically and institutionally sophisticated societies. For instance, their legislations commonly stipulate that all those whose environment or living conditions are to be effected with construction or related anthropogenic transformations with notable environmental impacts assume participation and/or other forms of public involvement where members of the community can have their say on processes in the making. However, these norms are relatively vague in a sense that what is required as an absolute minimum is easy to reach. To really involve citizens and their opinions in decision-making requires much more profound work in organisations and their operational practices, and this brings us back to the cultural aspects of how to open the decision-making processes.

Openness has been a high-profile catchword in the development of organisations and their working practices since beginning of the current millennium. Since 2003 and the *Open Innovation: New Imperative for Creating and Profiting from Technology* by Henry Chesbrough we have operated with the idea of opened-up innovation interfaces and innovation processes that are not to be confined within organisational boundaries (cf. Huizingh, 2011). New technology has emerged to break the boundaries of states and spheres of civilisations, challenging thus the regimes that seek to limit the individuals' access to information. Consequently, the boundaries of organisations cannot remain watertight. Humans, irrespective of their age, education, gender or social status, are more mobile than ever before, which means that information and knowledge as well as sentiments and dislikes as personal attributes are in a continuous circulation, both in terms of geography and in organisational spaces. We live in an environment marked by openness and permeability of various kinds of boundaries.

Another idea that has caught the minds of businesspeople and increasingly those in administration is a living lab (cf. Arnkil *et al.*, 2010). In the core of living lab thinking is an arrangement to involve end users in the development process of typically industrial products. More recently the approach has gained more and more leverage in the field of social innovation and, hence, among institutions with human-oriented functions such as governance and service provision, private or public. Interaction that takes place in a societal setting whose key aspects are represented by intelligent actors is particularly worthwhile for learning, as seen against a setting where much of the interaction culminates on the processing of the technical capacities of a however ‘intelligent’ product (cf. Nooteboom, 2001, p. 156). Learning, in turn, is an elementary ingredient in the process of finding innovative ways of coping in new situations.

3. ELEMENTS OF A ‘POST-NEW ECONOMY’

A phenomenon widely enthused about in the late 1990s as a ‘New Economy’ has profoundly transformed our systems of production, work and the very relationship between them. However, instead of a history of some 15 years the transformation has been with us for more than 30 or even 50 years, depending on how one emphasises its various aspects.

If the increasing service-intensity is seen as the transformation’s key driving force, it is well grounded to speak about a process having started in some parts of the world right after the immediate reconstruction that followed the Second World War. In this instance it is noteworthy that the leading post-war economy, the US, did not even face the need to mend war damages with respective investments. Thus, even if the nation’s newly acquired role with intense global military presence and the subsequent cold war armaments race entailed massive public spending,² individual consumers with their ever-expandable demand for goods and experiences became new driving forces. The 19th century coal, steel or railway barons of the industrial age were to be overtaken by new ones with most visionary ideas for developing retailing or turning what once was centralised computing into a ubiquitous world of interaction, snooping and gossiping.

So, one can maintain that the institutional foundations for the new economic order that now *may* have crossed the threshold to its mature state are rather firmly embedded in the economic system, including a great deal of the technological standards and practices that reflect the different aspects of transformation. Also serious

² The European Recovery Program (or ‘Marshall Aid’) given to West European governments and to confine the eventual Soviet influence beyond the Iron Curtain and praised for the eloquence of its design in achieving this goal by Janis (1982) can be added to this category.

blind alleys that seriously bridle the scope of potential developments can already be identified. They can be so commonplace elements of our daily environments that they virtually are beyond our recognition *as* blind alleys. Typical of such blind alleys is that something originally deemed as a solution turns out to be a problem (cf. Info box 1). However, a blind alley may also emerge in the midst of a widely-spread awareness and agreement on expected technological or societal development.

Info box 1. On standards and blind alleys: the case of MIDI

Jaron Lanier (2011, pp. 7–19) gives an excellent example of a premature choice of a technology that, after reaching a status of a *de facto* standard, turned out to be a fatal lock-in: the MIDI standard as an early tool for turning musical notes into a digital form. The problem with the MIDI, as angrily noted by Lanier, is that it does this digitalisation with a dramatically limited capacity given the potentials of music itself. The real ‘damage’ done by the MIDI is that having once reached the status of a standard method for ‘giving voice’ to a variety of digital equipment, the chosen path was virtually cemented by hardware manufacturers. Their adoption of the MIDI standard rendered no commercially viable platforms for competing and possibly musically more versatile approaches for processing notes and tunes.

One trend of societal development that has been visible for a long time but that obviously has escaped our full understanding is the post-industrial transformation ‘from a factory to the studio’ (Virtanen, 1987). This phrase was commonplace in the late 1980s, so there should have been time to understand and get adjusted to its content (cf. Reich, 1992; Sennett, 2002). However, large swathes of the industries have already left the modern logic of mass production and are resuming the practices that once prevailed in traditional craft production (e.g. Sennett, 2009). This transforms the entire logic of how value added in the more and more knowledge, innovation and solutions-led production turns into enhanced employment.

Maturation of the once novel and celebrated New Economy is thus well visible with due consequences. As a sign of newly found vulnerabilities technology companies have been forced to close entire facilities within a few years of their initiation (cf. Reich, 2001). This is exactly what happened to the Jyväskylän unit of Nokia in Central Finland – a unit that only focused on research, development and analysis of new service concepts.³ The Jyväskylän case matches well developments

³ In the same vein, faced by the dire market for its Symbian operating system powered handsets, Nokia informed in the fall of 2011 that it is compelled to close its facilities at Cluj, Romania, newly built there to add the corporation’s production capacity by replacing the handset production terminated in Bochum, Germany. In October 2011 Fiat, the Italian automobile manufacturer informed about its organisational restructuring, carried out in order to add the CEO’s agility for firing as rapidly as possible anyone whose capacity would not be immediately needed in the production (Sylvers, 2011).

within a ‘cultural circuit of capital’ as noted by Olds and Thrift (2005, p. 272). Such a circuit allows an increasingly free and rapid flow of knowledge throughout corporate networks. Unfortunately, in an economy as fluid as the one shown by the Jyväskylä case, localities may be made redundant in an equally free and rapid fashion if they fail to add right kind of value to the circuit.

With their top-trained professionals these facilities have in fact started to resemble traditional industries while their personnel, gloriously redefined in the 1990s as ‘human resources’ are being given a much traditional, 19th century role of an ‘employee’, if not a ‘worker’ (cf. Jacques, 1996). At least their hiring and firing seems to follow a logic that regards them as cost factors rather than sources of corporate value. It is little wonder that the response especially among the younger, knowledge-workers (*sic*) has been to resort to entrepreneurship as a means to take firmer control of the terms of their own participation in the workings of the economy.

In a true behaviourist fashion this virtual necessity with its due consequences – more and more individuals actually becoming entrepreneurs and demonstrably acting as ones – seems to be on the verge of turning into a more persistent cultural pattern. Based on recent surveys on the willingness to business-startups, the Finns appear to be in a process of transforming a preferred culture of working as a wage-earner to one boosted more and more by an entrepreneurial spirit. A 2011 survey shows that since 2008 the largest cohort to start a new enterprise in Finland is made of those under 30 years of age (Hänninen and Leino, 2011, p. 36). However, their favourite industries often differ radically from the ones favoured by the older cohorts and the entrepreneurs of the previous and gradually retiring generation.

There is another kind of functional or even cultural transformation going on, one with potential industrial policy consequences and certainly one reflected by the creative communities case described in next chapter. Based on the findings of another recent study (Paakkunainen, 2007, p. 172), it is interesting to note that the young Finns regard especially small business incubators or business parks with a clear and tangible profile as particularly appealing and risk-reducing test grounds for their entrepreneurial idea. Moreover, the study reveals, in the young potential entrepreneurs’ minds the time is ripe for another change. Innovation centres for small enterprises should brush aside the predominance of large science parks as the key innovation-led industrial policy instruments since the early 1980s.

In the same time the model that originally was born in the early Silicon Valley technology industries has found its way to the Nordic labour markets, whose institutional setup has traditionally differed remarkably from the North American, general Anglo Saxon or particular Techie-Californian model. As it has been traditionally the case with the tribelike labour markets in particular business civilisations such as the Silicon Valley, also the Finnish young professionals seem to be putting more and more weight to work with socially rewarding circle of like-minded people in socially rewarding organisational and physical setting. Very

often the physical setting can be a piece of brownfield or urban fallow,⁴ miles away from an imaginably flashy techno-infrastructure and more and more often the organisation seems to be replaced with open structures of cooperation – if not a direct and ideological antithesis for a standard organisational form.

The new entrepreneurial culture may be a manifestation of another persistent transformation of the society. It is possible to interpret the spawning of new start-ups as an emergent process, or even a cultural undercurrent, of breaking the traditional organisations from below. Should this be the case, the due break-up of large-scale organisations can be seen as certain de-materialisation. At least the functioning of the current economy is to a greater and greater extent distanced if not entirely separated from its material foundations. For centuries and almost until the end of the 20th century, in the heated pursuit of functionalist explanation for anything, also the financial market was seen in this light. The function that financial markets would stand for the public authorities, in return to favourably governed rules-based regulation and generally stable environment, was to be a ‘thermometer of economy’.

In the genuine spirit of the post-war Keynesian hegemony in economics, planning of and, later on, governance over the necessary conditions with the help of the readings from this thermometer was essentially about building the material base of economic growth. Now, with that material link of planning and building actual contexts for enterprises having largely vanished, the entire cultural set-up is different. In this environment, or in contemporary terms ecosystem of diverse but yet interconnected actors it would be extremely difficult to speak about broader societal ‘functions’ that would be given to the financial markets outside the immediate sphere of interests of those utilising the markets for their own avail. Since the 1980s financial markets have started to rule rather than reflect.

This change of roles is highly important in the face of our understanding of the philosophical foundations of the great transformation. However, it is also highly symptomatic of how the institutions and the wider societal setup of development in individual localities evolve (cf. Karppi, 2012). Yet, it may be difficult to indicate, particularly in advance, before anything tangible and with real effect has taken place. De-materialisation takes many other forms as well, often increasing the ephemeral features in economy. One of these forms is the increasing knowledge intensity, capacities to communicate and thus an enhanced emphasis of the human

⁴ Urban fallow is an element of urban morphology. Fallows are typically ‘created’ as the urban structure transforms with old users or occupants of a given property leave for a new location but no new user readily fits in the premises that are thus left dormant at least temporarily. This flexible process makes spaces and locations available for a wide variety of user-groups, and may facilitate openings for serendipitous development and innovative use of urban space. Urban fallows have been most often discussed in the context of old industrial premises and, hence, large urban scale (e.g. Conzen, 2004, p. 106), but also in more provincial or smaller-scale context (e.g. Hynynen and Kolehmainen, 2011, p. 15).

capital in the economy. It has also introduced economic developers with issues such as tolerance, creativity, recreation, or cultural amenities seeping in the core of how where and even *why* profitable business can be made (cf. Clark, 2007).

4. ELEMENTS OF A PRO-HUMAN ECONOMY: CREATIVE COMMUNITIES

These developments effectively challenge the existing ideas of what (and how) science should know what is relevant in the new circumstances. One of the changing areas of what and how to know is about an individual, the key-driver of knowledge-based economy. Focusing on an individual, however, reveals a major breach in the reasoning on a de-materialised economy. However much we wish to emphasise the cultural context of knowledge-creation, we cannot escape the fact that knowledge-creation and the entire processes that bring to the foreground an individual with her/his motivations and search for fulfilment takes place in a fundamentally material environment of tissues, receptors, transmitters and due cerebral structures that constitute the crux of the central nervous system (cf. Pinker, 2006; Flanagan, 2009).

Despite this obvious contradiction, the immaterial aspects have a firm foothold as the drivers of societal development are discussed and debated. Various markers such as indexes that seek to illustrate the stock of ‘creativity’ or ‘knowledge’ within a given territorial unit are produced to help those that are in charge of development to benchmark their success or even relative positions. They certainly reify a complex setting of societal development if anything ever does, with a consequence that even if internationally applicable comparative data exists to facilitate the construction of creativity or knowledge intensity indexes, they cannot capture the multidimensionality of the issue at stake (cf. Andersen *et al.*, 2010; Karppi and Takala, 2007).

Understanding the actual solutions that make up the place-specific operation environments requires understanding of factors that enable the ‘creative’ or ‘knowledge intensive’ environments being brought about. The answer of the age of science and scientific rationalism was to create a wide array of science parks and business incubators to secure the cognitive basis for high technology industries. They can, however, be also seen as descendants in the extensive institutional tradition of catching and harnessing the spirit of the age as a source of particular *meaning* in developmental processes. As it is noted in a recent paper (Karppi, 2012), the role they play is not too different from the ones played by the church, the university and the design of healthy environments at earlier stages of urban development.

Yet, institutional evolution traced in this text does not stop in science parks and the model of knowledge creation they represent. Ideas of a creative class and urban amenities that are thought to be particularly appealing to the broad,

liberal and tolerant minds have become serious tools in the pursuit of new elements of growth. As Polanyi and Prosch (1977, pp. 3–5) emphasise, meaning necessarily goes together with intellectual freedom. Creativity, urban amenities and search for personal (intellectual) freedom can be easily seen as postmodern tools (if no goals) of institutional development. Often, in actual locations, they mingle with extensive industrial traditions and even their physical premises that may have remarkable cultural significance for the localities in question (Karppi and Pihlajamaa, 2010).

Science-led rationalist pursuit of success regarded science parks and their agglomerations of technological excellence as its apogee. This had its obvious reflections in public development policies carried out in cities and communities participating in a particular form of knowledge-based competition, measured in a way in their capability to serve as incubators for creative industries. Their next stage is, however, much more complex. It is often built on strong entrepreneurial spirit and a combination of a sense of community, broad social networks and a youthful ideal of autonomous individuals who only get involved in activities (business included) they find worth the effort. Yet, to be developed towards a full-fledged, growth-generating market-led activity the entrepreneurial ideals and knowledge of the core substances must be typically complemented with venture capital, the sources of which need to be particularly introduced to the entrepreneurs (cf. Rasila, 2004). This venture-to-capital (V2C) may come from institutional or individual actors willing and capable to take and bear the risks associated with a startup having left behind its early stages of development and standing on a threshold to a potential growth cycle.

This ethical stance distinguishes the current entrepreneurial culture from the rationalist age that primarily focused on the technical and technically innovative qualities as the source of the competitive edge *per se*. Now they are more and more regarded as elementary assets for backing up the young professionals' yearning for autonomy and liberty. This yearning, in turn, can be seen as an escape from the claustrophobic boundaries of formal organisations and regular wage-labour (Jacques, 1996; Sennett, 2002), but also, as a more than slight reminiscence of the traditional Marxist explanation. As Polanyi and Prosch, 1977, p. 13) remind by this way of thinking, as new technologies (or other innovations, *Author's note*) emerge, pressures mount to change the order of property in favour of new classes, this time the one possessing the new, postmodern or personal liberty-maximising entrepreneurial spirit.

In more general terms it thus appears that the evolution of local preconditions for development reveals active individuals more and more as drivers for change. Simultaneously, how meaning is experienced in particular situations can be derived to a lesser and lesser extent from broad cultural platforms shared in a similar form by nation or even civilisation-wide communities. These platforms have been traditionally constructed by institutions such as religion (church) or science and

knowledge-creation (universities). They have become gradually replaced by individuals' moral choices on commitments within business and employment (cf. the 'virtual onion model' as referred by Gallivan and Srite, 2005, p. 301). Cast in the context familiar to organisational designers and urban planners alike this poses a veritable challenge.

To a great extent this is a question of how to deal with the various manifestations of active citizenship as sources of experienced, tangible meaningfulness. Particularly as emphasised by pragmatist thinkers (e.g. Flanagan, 2009), each developmental situation is marked if not even imprinted by a plethora of first-person sensations. In an economy whose key developmental driver is creativity and related unique factors that stem from the human experiences this inductive dynamic experience often turns into solutions with the help of tacit knowledge well before exact measurement can 'verify' their viability or 'explain' them through pre-existing theoretical frameworks (cf. Polanyi and Prosch, 1977, p. 32). As we have a centuries-long tradition of rationalist or 'scientific' and necessarily a top-down project of human development with societal governance fitted to match the needs of building nations, welfare-states, Keynesian demand-side macroeconomic regulation, military-economic complexes, Socialism or the EU, the need of re-think the terms of development are remarkable.

Development requires financial resources, and today more and more of these resources are to be derived from the financial markets where they are managed by institutional investors. While channelling the necessary resources to any value-adding and return-providing system the investors also appraise the conditions for continuity and predictability in their recipients' surrounding societal setting, hoping to find ones proficient in securing uninterrupted evolution in societal processes. Thus the kind of inductive turn should thus take place without noteworthy breaches in the surface of societal development, which means that it needs to be worked towards a veritable productive force in the same time that it remains conducive to self-fulfilment in actual individuals' work and life in general. Moreover, as humans in all their individuality are necessarily social beings, the task is essentially about designing platforms for individuals' meaningful associations in working life and community development processes alike.

5. FROM OLD TO NEW FACTORY: REVOLUTIONISING THE WORKING LIFE

Given the long industrial history of Tampere, a particularly interesting concept for creating a new platform for dynamic renewal of work and value added in the society is an innovation called New Factory. More than a mere concept or physical settings for forms of production that can be embedded in the increasingly knowledge and service intensive society it is possible to emphasise features that

have the potential to effect the cultural and institutional basis of entire working life towards *new work*.

The New Factory is – in its all aptly postmodern glare – physically located in the oldest still remaining industrial construction standing restored in the heart of Tampere. The TR 1, a six-storey Factory Building 1, was constructed in 1838 at the Finlayson district that in the early 19th century comprised a lion's share of the planned city area. Finlayson with its cotton industry started the Finnish industrial revolution and the new large-scale production with all its technical and organisational innovativeness. Now the New Factory may more or less harness the historical premises to do again the trick of reworking the institutional order for work and entrepreneurship. This time the task includes dismantling the rigid organisations and industrial relations and to identify and design models of knowledge-centred industrial production.

New Factory is no single organisation but rather a cluster of various activities and communities, and the necessary organisational forms to run them. Thus, there are firms that manage publicly funded enterprise development programmes carried out in the premises and there are newly established start-ups having been originated through these programmes, but this superficial description does little to illustrate the multifaceted character of activities carried out in the New Factory.

The New Factory calls itself a combination of four novel 'engine rooms' built on open innovation ideology and designed to meet the needs of students, self-employed entrepreneurs, researchers and developers. These roles are understood as flexible and overlapping, which means that facilities targeted, for instance, to growth entrepreneurs or researchers, or active and curious citizens, can be used interchangeably as situations and needs alter. To all user groups the New Factory professes to offer an interface with clear open innovation or co-design approach. For entrepreneurs and entire business entities this means customer and user-driven development processes.

For university and polytechnic students finishing their respective degree programmes this means an opportunity to get attached to real industrial, service or governance development processes and a due fast lane to high quality employment or entrepreneurship. For the City of Tampere and the city region this means a tool for dynamic industrial renewal. Entrepreneurship is a key aspect in the New Factory setup, as the entire concept reflects to a great extent Ronald Burt's (1995) idea of structural holes. These holes refer to discontinuities in the social texture of actors and networks that provide opportunities to the entrepreneurial spirits, as also recognised in a New Factory brochure quite explicitly:

The world is full of holes, needs that are not being met. No one can fill these holes and solve the problems of the world alone. The best innovations are born through a combination of different kinds of people and knowledge. The problem is that this knowledge is spread around the world randomly, and the people are disconnected from each other (http://uusitehdas.fi/sites/uusitehdas.fi/files/new_factory_brochure.pdf).

What this means in practice is that even in the era marked by overcoming the distanced with sophisticated means of communication, there is a need of a variety of ‘glues’ to keep the communicating and knowledge-creating processes from dissipating. In other words what is called for is a certain flavour of a community, even a virtual one, to weave a texture bridge gaps between territorial and disciplinary gaps in the knowledge-creating fabric.

A diverting feature in the production systems is famously described by Friedman (2007), whose ‘flat’ world reveals itself in processes where even services (private or public) can be cut into two basic components. The first and the more and more marginal of them is the one that absolutely requires a real-time contact with a customer. This is and will remain the local and culturally specific component of service provision. The second one comprises of elements that can be productised, standardised and delivered beyond a distance to the place where the actual (and local) event of providing the service takes place. The elements of the second component are necessarily global by their nature. They can be produced in a cost-efficient way with the help of tools that make possible for instance the development of computer program platforms on which the local service production and provision events are built. In manufacturing this split into components has been a traditional standard feature in the value chain management.

But even if this split of services and production processes into components is technically possible, economically feasible and actually taking place, it is not necessarily even close to what is regarded as desirable as the feature of working life. Especially as we speak about young, highly educated and ambitious professionals, the last thing that many of them wish to engage themselves in is to combine and adapt standardised (global) solutions with a minimal personal (local) involvement in the actual outcome in a given process,

This is where activities such as the Suuntaamo or HUB Tampere located in the New Factory of TR 1 come into the view. Suuntaamo, formally the Suuntaamo Tampere Central Region Living Lab aims at an entity where complementary actors operating in research and production cooperate with customers to create and gain from synergies available from their shared ecosystem (Suuntaamo, 2011). Thus, integrating and strengthening the common fabric that binds together different actors⁵ is the catchword here. Such an integration yields from the basic research and the original identification of the impetus for any activity to the actual users who are inevitably needed if that activity or its due outcome is to have any

⁵ Also the agencies that contribute to the funding of these activities come from a large and varied body of actors. For instance the Suuntaamo was established as a part of Tampere Regional Centre of Expertise Programme. The financing agencies include the European Regional Development Fund and the Centre for Economic Development, Transport and the Environment. Among the sponsors of the New Factory activities taking place at the Demola or HUB Tampere are also the City of Tampere through its varying thematic programmes, Tampere Regional Council and a large variety of enterprises that assign innovation teams and feed ideas for their further processing.

viability as a marketed product or legitimacy as a public service. The contrast is thus sharp to the process-slicing production philosophy described above as global.

Another, and potentially an even more extreme experience of the modern working life and particularly modern entrepreneurship as a pursuit of meaningfulness can be found from the same property. HUB Tampere is part of the international initiative of building new innovative places around the world where, as the community itself defines, entrepreneurs, innovators and changemakers can meet and work together to tackle the world's most pressing social, cultural and environmental challenges (HUB Tampere, 2011). If the process-slicing model subjects local action to the terms set on the global scale, the HUB with its accompanying activities, such as the Dream City project, hosted by Demola, one of the New Factory engine rooms (cf. Dream City, 2011), works the other way round. It is a combination of unique local communities, joined together by a shared global mindset and common guidelines to produce not only a sense of broader international togetherness but certain connecting features such as re-use of old industrial premises as the venues for the novel ideas.

6. ELEMENTS OF POST-RATIONAL PLANNING: REDEFINING THE URBAN CORE

The process of reconstructing the central business district of the Lempäälä municipality (pop. 20,000) at the southern fringe of Tampere metropolitan area has been already discussed in this journal (Karppi and Takala, 2008). As a few years have passed, the actual planning stage, identified in the previous text (Karppi and Takala, 2008) as one of the truly defining momentums of the visionary process carried out with a great deal of stakeholders and decision-makers, is now firmly on its way. Moreover, it is a subject of a profound research and planning technique development process, planned to be implemented between the years 2011 and 2015. As the lengthy time span suggests, only part of the process will be linked to practical or locally specific outcomes. Much of it will be guided by a genuine drive for new knowledge with a focus on planning theory or issues such as domestication of techniques applied by the planners.

The actual planning stage started in late 2010, and during the spring and summer of 2011 the outline of the process for running and managing the visionary work for setting the agenda and implementation scheme found its shape. In the fall of 2011 the process was named as *Urbi et Orbi* – for the city and the entire world. The process is highly research-intensive, which means that until now there are remarkably more questions and assumptions concerning the future process than actual findings and answers. However, what is already on its place is an officially appointed high-level project organisation and its executive group with the

necessary capacity to carry out the planning preparation as effectively as it imaginably can be in the democratic decision-making environment.

In a nutshell *Urbi et Orbi* is meant to be a process that firmly believes in the intrinsic quality of the planning process now on its way. It seeks to use experiences derived from a local case with unique benchmark value for the benefit of the global community of urban designers and regional developers. The endeavour to introduce new techniques and planning methods for the professionals and decision-makers starts with existing technical solutions such as the Smartboard or standard social media platforms. The reason for this is to lower the user-threshold by resorting to tools relatively easily recognisable by individuals with different backgrounds, and, hence, easily domesticated for use in this particular context. Moreover, as science and technology studies reveal, the entire history of techniques and technologies planned for one particular use show a tendency of functional spillovers to other uses (Feenberg, 2010). Experiences range from the adolescent telephone of the 19th century to early data network services such as the French Minitel of the 1980s. The entire planning process is thus built on creativity that stems from individuals and their experiences of what constitutes the community, its sense of place and potentials, but that needs particular interfaces for having an effect in the executive planning team's work.

Urbi et Orbi is organised as a knowledge-creating process with capacity to analyse and apply data collected, as it is put in the project memorandum, 'with living lab approach, from a user-centred open innovation ecosystem'. How this will be achieved is part of the research process, but at the project planning stage these fundamentals were nonetheless formulated and attached to the executive group agenda. What this means in practice is that a tool and a mechanism will be needed that allows a real-time, life-size simulation of the planning context, where numerous interconnected sources of information feed the executive group with planning data, all made relevant by the fact that they reflect the different aspects of a common target area.

The key feature of this living lab – and the feature that differentiates it from the standard living lab solutions that aims at co-development of co-design of a limited (product) entity – is that this living lab will operate with a vision for a future community. It thus needs to open continuously re-forming perspectives for potential futures of the community, using maps and narrated storylines, digital landscape images and particular elements deemed as meaningful parts seen to define the sense of the community. All these elements are meant to constitute an arena for debating and eventual sensemaking among the community members with their stakeholder and pressure groups as well as the democratically elected local decision-makers on the one hand, and the executive planning group with their scientific and practical advisers.

One crucial feature of the *Urbi et Orbi* team is its willingness to learn from its own work practices. Because of this the living lab approach will be yielded to

an ethnographic analysis of the team itself, the process beginning in the spring of 2012. The main aim with this practice is to increase and deepen the team members' own understanding of *how* they actually achieve the outcomes that they do, and what may be the easily unrecognised pitfalls of resorting to sophisticated technological tools that seem to open the entire planning and developmental palette in an actual, or even 'real' forms.

For all this the process may – and actually needs to – combine the results of recent and ongoing basic research carried out by the members of a large consortium⁶ and innovation processes carried out for this particular planning process, implemented as partnerships of public actors, enterprises and individuals. Built on local excellence, tested in a real urban development case – the central area of Lempäälä municipality – the *Urbi et Orbi* has charged itself with an aim of processing globally relevant expertise that will be further analysed and developed with a network of international partner institutions. The final and objective measure for producing relevant outcomes that meet the planning challenges the *Urbi et Orbi* team is committed itself to an explicit attempt to productise the tested solutions to exportable urban planning and community development services.

The process itself is designed to consist of four main research components: (1) developing a creative and interactive process for visionary urban and community design; (2) creating a model for the political, economic and judicial process to implement the visionary planning; (3) designing the necessary technical applications required for the visionary process; and (4) integrating the visionary work to the requirements of sustainable development with new ecosystem services. The tasks are extremely demanding, and the projected time-span required for the entire process will be necessarily several years, starting in the November of 2011.

Effective fieldwork requires favourable conditions for the analysis. In the context of this research these conditions have been translated into suitable living-lab arrangements created in the actual location in Lempäälä. The executive group has organised its work as a visionary team that meets weekly, typically on Friday afternoons which also enables the participants to have a kind of weekly debriefing session from the community development perspective. While this team is charged to re-think the entire lead idea of an existing and well established centre of a growing municipality, it has developed a particular team identity that stems from an ancient past. The name of the entire process, the *Hääkivi* ('Wedding Stone'), refers to the location of an Iron Age cemetery in the vicinity of where the team meets. The visionary work for the renewal of the municipal core into a location

⁶ Cooperation of this consortium is to be funded through Strategic Centre for Science, Technology and Innovation of the Built Environment in Finland (Rym-SHOK), a national research and development programme. The consortium will comprise Lempäälä Development as its coordinating enterprise, University of Tampere and VTT Technical Research Centre of Finland as the lead research institutions and a number of other enterprises that participate in the planning process or facilitate case studies in urban planning and construction, their legal, social and environmental aspects included.

of high-quality housing and workplaces within a 10-minute train connection to downtown Tampere and with a clear local identity and attractor potential in a major Finnish metropolitan area takes thus place in a location with quite a different but highly peculiar local attachment.

For the understanding of the dimensions of what large-scale transformations are all about this kind of homebase has its obvious advantages. The same can be said of the fact that the team that thinks development in highly urban terms meets in a traditional-looking loghouse that only comprises one large meeting-room and stands on an idyllic lakeside location, detached from the central agglomeration but within a sight to it. The premises are modest but functional by their composition, serving one goal above anything else. In these premises those responsible of the development process can retire from the ordinary daily activities and concentrate on nurturing the vision, conferring constantly with specialists on urban design, democratic governance and participation, human-centred technology and ecology. Moreover, all that is processed in these premises is also stored on the walls of a large discussion space with armchairs in a horseshoe formation. The premises thus form an essential part of the institutional memory required in a long-term process such as nurturing the physical as well as aesthetic, and possibly even the spiritual form of a community.

7. CONCLUSIONS: PROMISES OR CHALLENGES?

The most peculiar feature in the processes and their interplay with the physical locations studied in this paper is the scope that those involved in the processes give to their respective activities. Measures taken in these processes go far beyond the ordinary business or municipal development operations. The New Factory not only churns out firms with new kinds of products but entire entrepreneurial communities and new kinds of approaches to working life, participation into the operations of the corporate sector, or ways of life with entrepreneurship as one of its important aspects. Due to its administrative bearings the *Hääkivi* process has to focus on the developmental challenges of one municipality. However, those involved on it have committed to analytical processing of experiences and innovations reached during its visionary work, and opening the process for external, even global, scrutiny and learning.

The business community and the municipal executive group clearly strive for developing leading edges for the contexts of where their respective activities take place. Moreover, the very setup of these activities – for instance the international reference network of the HUB Tampere or the *Urbi et Orbi* consortium to support the Lempäälä executive group in its urban planning and community development task – clearly aim at verification of their pursued excellence in the face of relevant

international comparisons. In the case of the HUB the final verification is given by the unlimited market that either elevates or dooms its community members by their achievements. For the verification of the achievements reached through the *Hääkivi* community the *Urbi et Orbi* group has invited esteemed researchers on planning theory or science and technology studies to participate in the analysis of the capacities such as innovativeness, promotion of democratic participation or cost efficiency reached through the way how the process was carried out.

While there is evidence more convincing than just a sincere willingness to hope for the best that the new ways of thinking about entrepreneurship or executive work in a municipal development process have led to new forms and actual practices of work, it is obvious that the challenges are remarkable. As the *Urbi et Orbi* consortium noted in its own risk analysis made as it prepared for its task, the pronounced avant-gardism embedded in its own visionary process may breed obstacles that emerge at the interfaces between the inner groups or the process stakeholders and their environment. The challenge is only steepened by the fact that a great deal of this environment consists of elected members of local council and the local dwellers who facilitate the entire exercises both politically and financially, as voters and as taxpayers.

This is a worthwhile concern. Giving form to novel, and even innovative environments seems to be pressurised by the traditional and rationalistic approach that regarded reports and plans as the primary contents of planning work (Healey and Thomas, 1991, p. 195). Thus, the risk scenario identified by the *Urbi et Orbi* team may well be generalisable to all process that work on the interface between the creative capacities and the required legitimacy, the vital aspect of responsible policymaking. New concepts and approaches have emerged, including the Urban Design Management (Ahlava and Edelman, 2008), but not even such a major philosophical turn as the breakthrough of postmodernism in planning theory succeeded in changing much of the way how (Finnish) large-scale urban structures were actually planned (cf. Ylä-Anttila, 2010, p. 38). Thus, the cases discussed in this paper might well be analysed with an eye on their potentials for breeding the necessary eclecticism and a more relaxed and unprejudiced approach to the way how planning tasks are commissioned and development processes are managed.

Business cycles change and technological breakthroughs may render some tools once regarded as essential for development obsolete, and technological lock-ins may lead the entire developmental path to a blind alley. Moreover, elections bring new decision-makers to the view, and original innovators grow older and retire, or are headhunted as the fame of their personal achievements gets about. There is a plethora of culprits for losing the *raison d'être* for what was the original idea for finding new ways within business or governance. The forms that are dominant today are dominant for the simple reason that the basically Darwinist process of survival of the fittest has, in a silent and resilient way over time given them their particular legitimacy and primacy over most if not all alternative forms.

Thus, working on the interface between the aspirations and ambitions so elementary in the novel and alternative ways of pursuing success and the plausibly grounded institutional inertia present in the mainstream of doing business and governing may be a true question of life and death. Open innovations and real-time living lab settings that allow a remarkably intimate contact between various stakeholders in processes that utilise these approaches may also set free forces the traditional forms of organising action have sought to keep in check. At best this may lead to a major blooming of ideas and new practices. In a recognisably Aristotelian sense, of which Paul Virilio (2007, p. 91) has reminded us, the novel forms of doing business and governing may also collide with the traditional ones with a magnitude of a violent accident that forces the markets or organisations reveal their true character. It is also possible that they reveal aspects that normally are carefully hidden behind all this normality of daily routines. Thus, they may teach us a great deal about the institutional order that surrounds us and that we have simply accustomed to take for granted in the absence of any palpable alternatives.

Finally, however bland this may sound after all having been said here, the following needs to be emphasised. Trying to capitalise the promises held by the new ways of fitting business and governance in their current and probably also future environments may not be easy. The sheer multitude of new ways necessarily breeds major challenges. Persistent co-evolution and possibly at some stage co-design (or even *co-regulation*) is needed, and not at any rate something that ought to be avoided.⁷ Problems may well emerge if the new forms of promoting openness and extended intimacy between different stakeholders and their ideas are developed towards the prevailing institutional models of how human interaction is arranged in a societal setting – the traditional organisational forms. Rearranging this setting is like a piece of ‘mental brownfield development’ with the market-based exchange and the idea of organisations with their traditional, formally defined boundaries constituting the structures that hold the potential for innovative re-use.

There is still also a practical argument that is to be made, namely that the spatial context in which action takes place does matter (cf. e.g. Sack, 1997, p. 13). This quasi-truism of structuralist geography is hardly a revolutionary idea, and forward-looking real-estate developers have acted upon it for quite some time. To give only one example Luukko (2010) sheds light on University Properties of Finland, an enterprise that manages most of Finnish university properties, whose head of research and development has in different occasions underscored the idea of promoting creativity and producing physical settings conducive to it as a mutually interconnected process. But how may this development take place in premises

⁷ As could well happen in the name of maintaining and safeguarding an organisation’s autonomy, manoeuvrability, or (however narrowly understood) integrity.

originally designed for purposes now made obsolete, and taken into new uses by pathfinders of new entrepreneurial tribes or creative spirits within public sector? This is an empirical question well worth of further scrutiny.

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PART II**ARTICLES**

Juliet CARPENTER*, **James SIMMIE***, **Elisa CONTI****, **Fabiana POVINELLI**** **Joschka Milan KIPSHAGEN****

**INNOVATION AND NEW PATH CREATION: THE ROLE OF
NICHE ENVIRONMENTS IN THE DEVELOPMENT OF THE
WIND POWER INDUSTRY IN GERMANY AND THE UK**

Abstract: This paper seeks to explore the issues of innovation and new path creation in the UK and Germany, illustrated through the case of the modern wind power industry. Taking an evolutionary perspective drawing on path dependence theory, the paper examines the role of niche environments in the creation of new economic pathways. The research finds that new economic pathways are more likely to develop in places where niche conditions provide receptive environments for innovations to flourish. The policy implications of the research include the importance of supporting niche environments that encourage growth in new sectors and the need for financial support to bring innovations to market, to encourage the development of new economic pathways.

Key words: innovation, new path creation, wind energy, niche environments, Germany, UK.

1. INTRODUCTION

In times of economic crisis, much policy discourse centres on possibilities for the creation of new economic trajectories to lift a national economy out of recession. New industrial pathways are needed as a source of additional employment and economic growth (Martin and Sunley, 2006). One route to new industrial pathways is through innovations in particular sectors that build into a critical mass.

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The key issue explored in this paper is the process through which these new economic pathways are created by innovative companies, thus contributing to regional structural change and economic competitiveness.

The importance that innovation plays in this process has long been recognised, dating back to Schumpeter's writing in the 1930s (Schumpeter, 1939), with innovation in products and processes being seen as key to growth in new sectors of the urban and regional economy (Simmie, 2001). However, there is less agreement over why and where inventions (i.e. new ideas) take place, which in turn feed the innovation process (i.e. the commercialisation of new ideas). Drawing on the theoretical framework provided by evolutionary economic geography (Boschma and Martin, 2010), it can be argued that path dependence theory offers an important perspective in understanding these issues (David, 1985; Arthur, 1989). Path dependence theory gives prominence to the notion that history is a key factor in determining current and future economic pathways. Rather than the economy tending towards an equilibrium state, as rational models of equilibrium theory would suggest, proponents of path dependence theory argue that the current economic landscape is influenced by past economic activity, which in turn shapes future economic pathways (Martin and Sunley, 2006). Studying the process of new path creation can provide insights into why and where new economic pathways emerge and can thus contribute to understanding how the structure of local and national economies evolves over time. Clearly, these are issues that have significance for policy-makers in economic development, seeking to encourage new trajectories in the economy.

Within this emerging theoretical framework, however, there are a number of unanswered questions around the geography of new path creation. In the broadest terms, why do inventions lead to innovations and new path creation in certain localities rather than others, and subsequently why do new economic pathways emerge in some places rather than alternative ones. In this paper, we apply the theoretical framework of path dependence to explore these questions, taking the wind power industry as an example of a new economic pathway.

The sectoral focus here is the wind power industry, for two key reasons. Firstly, OECD patent data shows that wind power relative to other climate mitigation technologies, has had the most patenting activity since the Kyoto Protocol was signed in 1997 (figure 1). Wind energy technology is therefore central to low-carbon innovation and represents an important sector to examine in terms of new economic pathways.

Secondly, the wind energy sector has the potential to contribute to the 'green economy' that is being promoted by Governments across the world, that encourages the growth and take-up of low-carbon technologies to meet climate change obligations, as well as creating 'green jobs' to address rising unemployment. It is thus an important growth sector in many countries, offering a relatively new and evolving economic pathway to study, given the current emphasis on decarbonising the energy supply system.

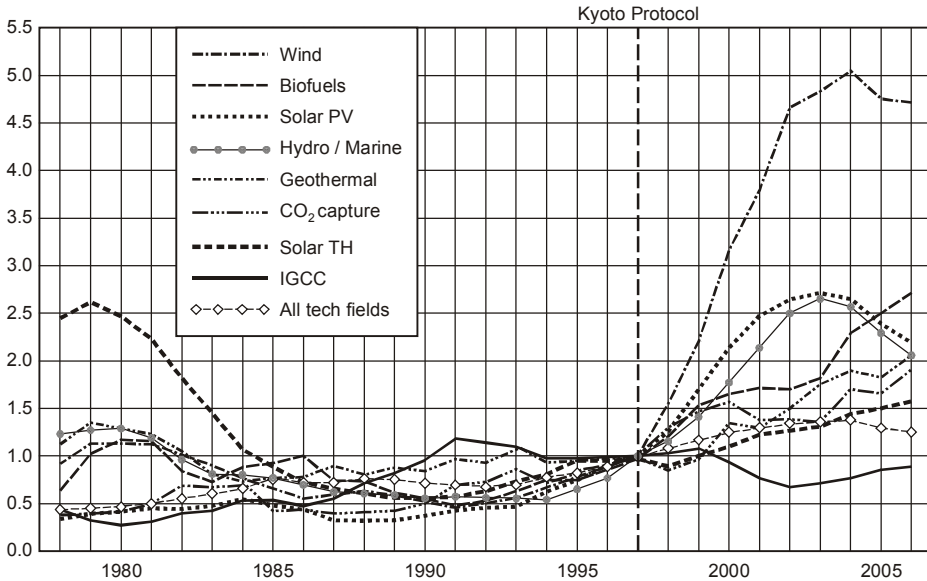


Fig. 1. Patenting in climate mitigation technologies relative to all sectors (indexed on 1980 = 1.0, ratification countries)
Source: OECD (Pilat, 2010)

For the purposes of this paper, the wind power industry is defined according to OECD definitions, as classified in the IPC (International Patent Classification) which categorises innovation related to wind energy technology as wind motors (F03D), electric propulsion with the power supply from force of nature e.g. wind (B60L 8/00) and propulsive devices directly acted on by wind (B63H 13/00) (OECD, 2009).

The two countries selected for analysis are Germany and the UK, as contrasting case studies with different evolutionary histories. OECD data shows that Germany is one of the leading innovators in wind power technology, in contrast to the UK, which lags significantly behind, despite having some of the most favourable wind resources in Europe. The two countries therefore offer interesting comparative cases, where a so-called ‘wind rush’ has been experienced in one country but not the other.

The paper therefore aims to explore the concept of new path creation, taking the case of the wind power industry to examine why the sector has developed along different trajectories in the two countries.

The paper is structured as follows: the second section reviews the theoretical literature related to path dependence theory and new path creation, while the third section provides some background to the national contexts in the two countries under study, the UK and Germany. The fourth section presents the methodology that was used in the study. The fifth section looks at the case of the wind energy sector in detail, reporting on in-depth interviews with wind energy inventors

in the two selected countries. Finally, the sixth section presents conclusions and highlights the contrasts between the two countries, showing how receptive niche conditions are key to the development of new economic pathways.

2. LITERATURE REVIEW

There has been increasing recognition over the last 20 years of the value of adopting an evolutionary approach to understanding the economic landscape, at the national, regional and local levels (Boschma and Martin, 2010). Among scholars working in this field, there has been a growing dissatisfaction with rational models of neo-classical equilibrium theory, models that are rarely played out in reality (see e.g. Arthur *et al.*, 1997; Nelson and Winter, 1982; Witt, 2003). According to neo-classical theory, there is little explanation for economies that progress along sub-optimal technological trajectories. However, it is argued that an evolutionary perspective can shed light on these real economies, by adopting a historical approach to understanding economic growth and change.

Embedded within the evolutionary perspective is the notion of transformation from within, over time. Thus, previous economic pathways influence current possibilities, which in turn affect future path creation. As Metcalfe *et al.* (2006, p. 9) state, 'Economic growth is an autocatalytic process in which change begets change'. What scholars of geography bring to the debate in addition is an emphasis on the spatial dimension of economic change, demonstrating that place matters in our understanding of economic growth and evolution of the economic landscape (Boschma and Martin, 2010, p. 6).

Within evolutionary economics, there are at least four strands of thought that address evolutionary change in the economy: generalised Darwinism (e.g. Metcalfe, 2005; Witt, 2003), complexity theory (e.g. Beinhocker, 2006; Foster, 2005); panarchy (e.g. Gunderson and Holling, 2002) and path dependence theory (e.g. David 1985; Arthur 1989; Garud and Karnøe 2001). Each approach has a different focus: Darwinism highlights variety, novelty and selection; complexity theory emphasises self-organisation, bifurcations and adaptive growth; and panarchy concentrates on adaptive cycles. Path dependence theory, on the other hand, focuses on historical continuity and 'lock in', and given our interest in new path creation in the evolution of urban and regional economies, we focus here on path dependence theory as a conceptual framework for understanding how and where new economic pathways emerge. As Boschma and Martin (2010, p. 8) state, path dependence theory incorporates the notion that 'the economic landscape does not tend towards some (pre-defined) unique equilibrium state or configuration, but is an open system that evolves in ways shaped by its past development paths'. However, as we establish below, there remain questions that are unanswered by the theory, such as where new paths come from, and why they emerge where they do (Martin and Sunley, 2006; 2010).

According to path dependence theory, the cycle of an economic pathway evolves through four stages: pre-formation, path creation, path dependence and path decay or re-invention (Martin and Simmie, 2008). It has been argued that path dependent development trajectories are the result of two parallel forces: economic incentives of increasing returns on the one hand, and the bounded rationality of technological paradigms on the other. While increasing returns and agglomeration economies offer one perspective on the drivers behind path dependence (see Parr, 2002), here we concentrate on the concept of ‘technological paradigms’ as a means of understanding path dependent development trajectories, given our interest in the role that technological development plays in new path creation.

A concept first introduced by Dosi (1982, 1984), ‘technological paradigms’ can be defined as ‘a collectively shared logic at the convergence of technological potential, relative costs, market acceptance and functional coherence’ (Perez, 2010, p. 186). Thus, the paradigm defines the *modus operandi* shared by a given community of practitioners (Dosi and Grazzi, 2010). As Dosi and Grazzi (2010, p. 180) note, ‘learning is often local and cumulative’, illustrating both that ‘geography matters’, and that path dependence is an important factor, due to the cumulative local build-up of know-how and understanding. What is less clear, however, is how and why new pathways emerge in the pre-formation stage of path dependence theory, when faced with dominant technological paradigms.

Path dependence theory suggests that it is difficult to establish a new economic pathway which breaks away from an established economic sector. In the case of the energy sector, the theory would suggest that once locked in to a centralised and grid-connected electricity generating system based on fossil fuels, it is difficult for the renewable sector to break in and become established.

However, one of the key processes behind the emergence of a new economic pathway is the transformation of an invention into an innovation. Schumpeter (1911, pp. 132–136) was one of the first scholars to make the important distinction between invention and innovation, an invention being a product or process that is conceived for the first time, as opposed to an innovation which is the commercialisation of that invention, involving a transition from what is technologically possible to what is economically viable (Perez, 2010).

In this paper, we examine the transition from invention to innovation and further, to the creation of a new economic pathway, taking the concept of ‘niche environments’ to explore where and why new economic trajectories develop. A niche can be defined as a limited space where new technologies can develop and mature (see Schot and Geels, 2007, for a critical review of the concept). In order to make a break with dominant technological paradigms, it is argued that niches (spaces) are required within or outside existing knowledge structures, where a new technology is temporarily protected from the standards and selection rules of the prevailing paradigm (Kemp *et al.*, 1998; Hoogma *et al.*, 2002; Markard and Truffer, 2006). Niches provide the opportunity for inventions to mature, without competitive market pressures being brought to bear, or the normal selection criteria that operate in the dominant technological paradigm.

Thus, we suggest that one of the key requirements for the creation of a new economic pathway is the existence of a niche, an incubation environment, where a new technology can be sheltered from the dominant technological paradigm and take root.

It is this theme that we will explore in greater detail empirically in the remainder of the paper, taking the case of the wind power industry in the UK and Germany to examine how far the concept of niches within new path creation theory has been important in explaining the different trajectories of the wind energy industry, and how far it can account for the different outcomes in the two countries.

3. CONTEXT OF THE WIND ENERGY INDUSTRY IN THE UK AND GERMANY

The situation of the German and UK wind energy industries stand in marked contrast. Analysis of OCED’s REGPAT database shows that patent applications between 1978 and 2005 in the wind industry in Germany far outstripped applications in the UK for the same period (figure 2).

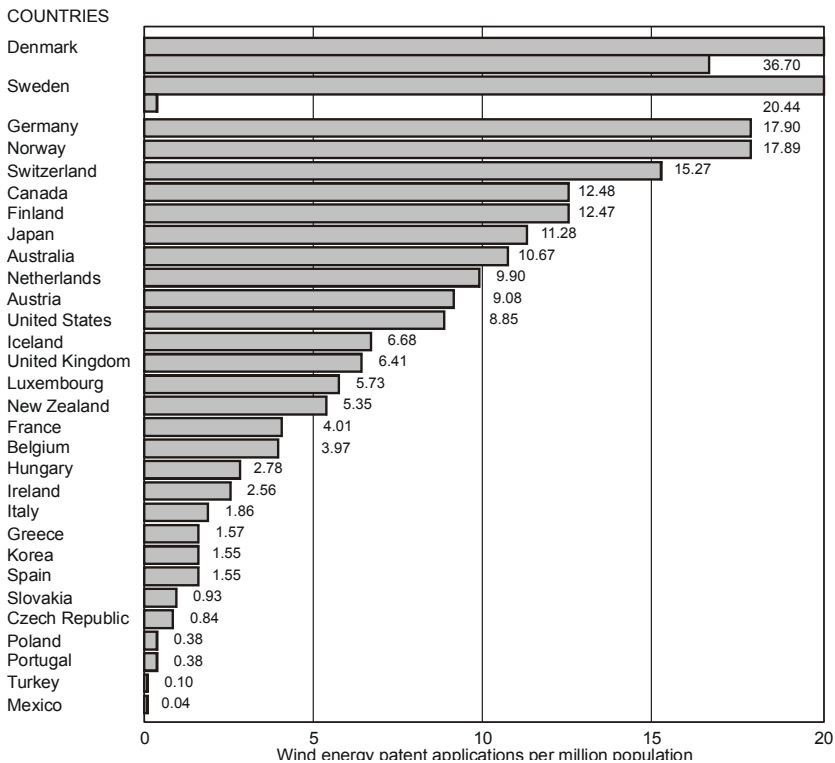


Fig. 2. Wind energy patent applications per million population
OECD 1978–2005 REGPAT

This lead in relation to patents also translates into a significant advantage in terms of wind energy capacity. Historically, Germany has been the world leader, and was only overtaken by the USA in 2008 (WWEA, 2009). As table 1 shows, installed onshore wind capacity in Germany is around ten times that of the UK, with renewable energy and in particular wind energy, playing a significant role in meeting electricity demand. There are also differences in the level of energy delivered by wind power *per capita*, with Germany delivering 270 kW per 1,000 inhabitants, while the UK delivers just 39 kW per 1,000 inhabitants (IEEP, 2009).

Table 1. Wind capacity in the UK and Germany and the potential to meet electricity demand

Country	Installed onshore wind capacity (end 2007) (MW)	Installed all wind capacity (onshore and offshore) (end 2008) (MW)	% gross electricity production generated from renewable energy (2007)	Wind's share of electricity demand (as of end 2007)
Germany	22,389	23,903	15%	7%
UK	2,389	3,241	5.1%	1.82%

Source: IEEP (2009).

In relation to employment in the wind industry, there are also marked differences between the two countries. Reliable comparable data on the number of jobs in the sector are difficult to access, due to the lack of detail in official statistics and the variety of company profiles that make up the sector. Nevertheless, the growth of the wind energy sector in Germany is demonstrated by recent figures from the German Federation of Wind Energy, which show annual employment in the wind sector increasing from 1,800 employees in 1992 to 102,100 employees in 2009 (BWE, 2012). Although the figures are not strictly comparable due to the different definitions involved, data for Germany and the UK show that direct employment in wind turbine manufacturing, installation and maintenance in the UK increased from 2,000 in 2002 to 4,000 in 2009, while it has increased from 17,200 to 38,000 in Germany during the same period (EWEA, 2004, 2009).

The landscape of companies involved in manufacturing in the wind energy sector in the two countries also reflects these differences. In the UK in the 1980s, there were three key companies in the sector: Wind Energy Group (WEG), James Howden and Vertical Axis Wind Turbines / Renewable Energy Systems (RES). Of these, RES was the only company still in operation in the UK in 2010, WEG having been taken over by the Danish company Vestas, and James Howden discontinuing wind turbine manufacturing in 1989. In contrast in Germany, there were five key companies in operation in the 1980s: Südwind, HSW, Tacke Windenergie, Flender/Winergy and AN Windenergie. Through a series of mergers and

acquisitions, three of these companies are now subsumed into the three German-owned world-leading companies in wind energy: Nordex, REpower Systems and Siemens, with the two others being taken over by the American company GE (Kammer, 2011, p.153).

It is also interesting to note that the position of the energy companies also differs in the two countries. In Germany, energy companies were forced by the Government to accept competition from third parties which stimulated investment in wind turbines (Agterbosch and Breukers, 2008). In contrast, UK policy has favoured large investors, which has prevented new players from entering the market (Wolsink and Breukers, 2010). Thus the development of the industry in the two countries has diverged over the years, and it is the roots of this divergence in trajectories that we explore in the remainder of the paper.

However, it should be stressed that this paper is exploring the technological development of wind turbines, as an expression of pre-formation and new path creation, rather than the evolution of wind power deployment, which is an expression of the establishment of the new economic pathway. We are therefore interested in the conditions which favoured the development of innovations in the wind energy sector, rather than the factors which affected the further development of the sector, such as electricity grid connection.

4. METHODOLOGY

To investigate these issues, we have adopted a qualitative methodological approach, using primary in-depth interviews with inventors to explore empirically the issues related to the emergence of the wind energy industry. The sector presents an example of a relatively new economic pathway that has developed unevenly over space during the last 30 years. It therefore offers possibilities to examine the factors that have led to its rapid development in some localities compared to others, potentially in niche conditions.

Two databases provided access to inventors in the wind power industry: the patent application database REGPAT, hosted by the OECD, and the ESPACENET database held by the European Patent Office. From these databases, it is possible to identify inventors and thus explore with them the factors that led in Germany to the development of the wind energy industry as a new economic pathway; and in the UK, possible reasons why the wind energy sector has not developed more rapidly, despite the geographic factors which might lend themselves to such development, including significant on- and off-shore winds and the largest wind energy resource in Europe (Landuse Consultants, 2010).

Using these databases, inventors who had applied for wind energy patents during the period 1978 to 2005 were identified in the UK and Germany. The sampling

techniques were slightly different in the two countries, due to the differing number of patents. In the UK, from the REGPAT database, there were strong concentrations of absolute numbers of patent applications in the two regions of Scotland and the South East, with a total of 110 in all which was taken as the sample frame. In Germany, national sample frames were drawn directly from the ESPACENET database, from which, a random sample of 200 inventors was identified.

In both countries, a letter was sent to each patent applicant requesting a telephone interview that would follow a semi-structured format, exploring the conditions that were favourable to the development of new technological pathways. The interviews lasted up to 90 minutes, and were recorded digitally with the interviewee's consent, and subsequently transcribed for analysis.

The response rates were 11% for the UK and 6.5% in Germany, bringing the total number of completed telephone interviews to 25. Whilst a relatively small number overall, it was felt that this was acceptable, given the qualitative approach and in-depth nature of the interviews. The relatively low response rates are likely to be for two reasons. Firstly, the address associated with the older applications dating from the 1970s and 1980s are now likely to be out of date. Secondly, a number of the patent applicants on the REGPAT database were not actually granted patents for their inventions, and therefore this might have been a disincentive to taking part in the research.

Although the sampling methods were slightly different in each country, they still allowed for a robust dataset of interviews to be collected and analysed addressing the research issue.

5. WIND ENERGY INNOVATION IN THE UK AND GERMANY: RESULTS AND ANALYSIS

Respondents in Germany were in agreement that innovation in the wind energy sector, and the development of the industry over the last 30 years, has been strongly supported by the existence of 'niche' environments which protected innovations in the industry from external competition as early as the 1980s. One reason given was that many innovators were working in the protected niche environment of academia, and so did not have to compete initially on equal terms with the dominant technology.

However, there was also a strong feeling among respondents that political support in Germany had been responsible for the creation of niches that favoured the development of the wind power industry. The introduction of the *Stromeinspeisungsgesetz* (the Feed-in Law) in 1990 was seen as a key moment in developing niche conditions for the sector, providing incentives for the development of renewable energy (Jacobsson and Lauber, 2006). The law ensured grid

access for electricity generated from renewable sources, and required utility companies operating through the national grid to pay premium prices for the electricity supplied from these sources (Szarka, 2007). The Feed-in-Law was followed by the 250 MW Wind Programme in 1991, which supported the piloting and demonstration of new wind turbines and wind turbine designs, by domestic companies. The specific aim was to support promising innovative wind turbine designs, rather than supporting already fully commercial technologies.

The Feed-in Law was succeeded in 2000 by the Renewable Energy Act (*Erneuerbare-Energien-Gesetz*, EEG), which helped to encourage small and medium sized enterprises to enter the renewable energy market, under favourable conditions. Clean energy technologies were not subsequently competing on equal terms with other technologies in the non-renewable energy sector, thus creating a protected niche environment. Therefore, in Germany the policy conditions from the 1990s positively favoured the renewable energy industry and encouraged the development of wind energy technologies, that could take advantage of these preferential conditions (Szarka and Blühdorn, 2006).

Interviewees in the UK, on the other hand, claimed that the government was relatively slow to encourage renewable energy technologies through specific policy measures. Before the privatisation of the electricity supply industry in 1990, the rates (a form of property tax) charged by Government to independent generators of electricity meant that it was not practical or financially viable to build wind farms to compete against the Central Electricity Generating Board (Musgrove, 2010). After 1990, this situation changed with the introduction of the Non Fossil Fuel Obligation (NFFO), although this was a side-effect of the privatisation of the power industry, rather than a positive policy move in itself. It was superseded by the UK Renewables Obligation (RO) that was introduced in 2002, placing an obligation on electricity suppliers to provide an increasing percentage of electricity from renewable sources. However, this has proved more costly and less productive than the German feed-in tariff and has contributed to a divergence in the development of the respective countries' wind energy sectors (Musgrove, 2010). Furthermore, the UK only introduced a feed-in tariff relatively recently (April 2010), so the effects of this new policy measure have yet to be seen in terms of encouraging innovation in wind energy and other renewable energy technologies.

Therefore in Germany, the niche conditions established by government policy positively supported the development of a new economic pathway through the creation of favourable conditions that supported the wind energy industry. In contrast, in the UK, such positive initiatives were lacking until recently, leading to 'lock-in' to carbon-based forms of electricity generation. This has meant that the trajectories of the two countries' respective wind industries have diverged significantly since 1990.

Furthermore, in the UK respondents also cited strong community opposition to wind farms due to their noise and size, and respondents felt that these

attitudes may have contributed to the Government's reticence in supporting the wind power industry in the past. This lies in marked contrast to local reactions in Germany, where despite concerns about 'asparagusisation' of the landscape (so-called *Verspargelung*) those interviewed for the research reported that many people are supportive of wind farms, given their contribution to the production of clean energy and to mitigating climate change. This cultural difference between the two countries, reflected in the strength of the Green Party in Germany, is also echoed by findings from Wolsink and Breukers (2010) who showed that the development of the wind energy industry in North Rhine Westfalia was characterised by a collaborative approach with an emphasis on local issues, factors which have contributed to the growth of the industry in Germany.

A further difference between the two countries highlighted by interviewees relates to wind farm ownership. In Germany, wind farms are largely in the hands of farmers or cooperatives who often have a commitment to renewable energy in addition to ensuring their operation is profitable. In the UK, however, wind farms are mainly owned by a small number of incumbents, often ambivalent about renewable energy, particularly in the early days (Lipp, 2007; Stenzel and Frenzel, 2008).

Once niche conditions are created, in particular through government policy encouraging a receptive environment, other drivers are then required for innovation to flourish. Respondents in the research identified in particular the need for R&D investment to support the development of innovation, to exploit the opportunities that niche environments offer. However, R&D funding was much more generous in Germany in the 1980s and 1990s than in the UK, and was distributed much more widely amongst SMEs. Renewable energy also had much stronger and more diversified institutional support in German Universities and research institutions such as *Fraunhofer* and ISET, whereas in the UK, there has been a more ambivalent approach, particularly during the 1980s and 1990s.

Interviewees also highlighted the importance of the inherited industrial structure in Germany, and the role that this heritage has played in encouraging innovation in the wind industry. The strong position of the German automotive industry was seen as an indicator of the potential for engineering excellence, and the legacy of the shipbuilding industry in Northern Germany was cited as being important for the development of the sector.

In Germany, therefore, support from government to create niche conditions in the 1990s helped the wind energy industry to flourish, encouraging innovations in the sector that challenged the dominant technological paradigm (Dosi, 1982). This support has been lacking the UK until recently, and has been one of the key factors in preventing the development of wind energy innovations in the UK.

Niche conditions can also be supported through the existence of the venture capital sector. The development of the wind energy sector has high capital start-up costs, and lenders in the past have been relatively risk-averse in their approach to the wind energy industry. However, the growing acceptance of wind energy

means that this is less of a challenge in raising capital to finance the development of wind power innovation. However, respondents in the UK reported that it is difficult to access capital to fund alternative approaches to wind energy generation, for example, using vertical axis machines. In an example of path dependence, commercial banks and venture capital companies are reluctant to fund this relatively recent development, as it runs counter to what has been 'tried and tested' in the market place.

This risk-averse approach can be traced back to the historic lack of niche conditions in the UK, which have meant that, in contrast to the situation in Germany, the wind energy sector has not, until recently, been widely accepted by institutions, be they financial or political. Other differences in relation to laws and framework conditions that regulate wind power in the two countries also make it more difficult to raise capital for such ventures in the UK (Mitchell *et al.*, 2006).

Interviewees also suggested that powerful economic interests have in the past hindered the diffusion of innovations in the wind industry in the UK. Well-established and powerful energy-generating companies were initially against the development of the wind power industry, and exerted their influence to prevent the diffusion of innovation in the sector. However, over the last decade, respondents identified that a cultural shift has taken place with the general acceptance of the challenges of global warming. There is now a certain cachet to being involved in green energy activity and investment. As a result, many large scale energy companies such as G.E. and Siemens are embracing renewable energy as part of their energy portfolio, and have taken over the wind energy divisions of smaller companies, lifting some of the previous barriers to innovation diffusion in the sector. However, this has not impacted on the outcomes of early policy decisions which failed to provide the supportive niche conditions for wind energy innovations to flourish in the UK, and which have left the UK in a lagging position, relative to its German neighbour.

6. DISCUSSION AND POLICY IMPLICATIONS

The key difference to emerge from the development of wind energy innovations and thus a new economic pathway in the UK and Germany was the support that the sector received through Government initiatives in the 1990s. The Government in Germany acted early to create a feed-in tariff in 1990 which introduced favourable conditions for new path creation, developing the wind energy sector. Coupled with this, a wider cultural acceptance of wind energy as an alternative to traditional fossil fuel electricity generation in Germany, contributed to the advanced development of the wind power industry compared to the UK.

In the UK, the Thatcher Government's move to privatise the electricity supply industry in 1990 had the unintentional consequence of creating limited niche

conditions for the wind power industry. However, the overriding motive was not to support the renewable industry sector, and as a result, other enabling mechanisms such as R&D investment, were not forthcoming. It is these enabling mechanisms which allow the transition from marginal and protected niches, to mainstream and exposed dissemination, building to a critical mass and new path creation, mechanisms which were largely absent in the UK. In Germany, by way of contrast, the government made positive and intentional moves to support the renewables industry, as an aim in itself, and was subsequently more successful in encouraging innovations in the sector. Supportive niche conditions and other mechanisms have provided a fertile environment for innovation in the wind energy sector to flourish, reinforcing the differences in the two countries' trajectories.

There has also been considerable resistance to the development of wind farms in the UK from local communities, which could be argued has created barriers to the development of innovation in the sector, strengthening path dependence and 'lock in' to carbon-based electricity generation.

In sum, the experiences in the UK and Germany show that new economic pathways are more likely to develop in places where niche conditions provide receptive environments for inventors to develop their ideas. In the context of debates around new path creation, these findings illustrate the importance of factors which contribute to new economic pathways, which can illuminate the process of regional economic growth. In particular, institutional conditions, such as policy initiatives that create niche environments, are especially important in promoting new economic pathways. The different trajectories of the wind energy industry in the UK and Germany relate to the historical and institutional legacies in each country, that created receptive niche environments in Germany but which failed to do so in the UK. This finding is particularly salient in the current economic climate, where the private sector is expected to lead the vanguard of economic recovery, in the face of financial constraints in the public sector. The research would suggest that policy makers consider carefully the potential contribution that they can make to the creation of niche environments, through legal or fiscal mechanisms to support new economic pathways that will sustain regional economies in the future.

Similarly, financial support such as access to financial backing through venture capital or commercial lending, can support development of new approaches, and help bring innovations to the market. The example of the wind energy industry in Germany shows the importance of strong support for R&D that helped develop innovations in the wind energy sector, and this lesson could be applied to other sectors.

However, these policy implications are set within a caveat related to economic 'variety'. The experience of new path creation shows that innovations flourish in areas where related sectors have also prospered (Boschma and Frenken, 2011). New economic pathways cannot be created in a void. A key policy message is therefore the need to support sectors that build on variety within a regional economy, rather than seeking to specialise in new, and unrelated, activities.

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URBAN REGENERATION IN A ‘CITY OF CULTURE’ THE CASE OF PÉCS, HUNGARY

Abstract: The development of Pécs is essentially due to its historically central location and to the fact that the regional institutions and the revenues generated by them have enriched the city. This functional wealth elevated the city to a position above the surrounding settlements. In its development, culture has always played a significant role. From the second half of the 19th century, it was industrial development which contributed most to its growth, a trend which was reversed at the end of the 20th century. The crisis arrived with the transition in the 1980s and has so far not been resolved. The city once more based its growth concept on human capital and on the cultural tradition when formulating new development strategy, and, as a result, it won the title of European Capital of Culture 2010. However, market processes and EU development funds necessarily generate trends which are rather more global, and in the post-socialist cities there are insufficient funds for endogenous development based on local factors to be realised.

Key words: city of culture, urban planning, structural change, revitalisation of city, development strategy, funding-oriented planning.

1. INTRODUCTION

In the case of small and medium-sized towns, questions can always be posed as to the extent to which they are subject to irresistible trends and the chances which they have to influence their own fate. The decline or rise of Hungarian towns often depended on central politics and on the evaluation of their resources in the external market, and Pécs has benefited from these processes for a long time. Its geo-political location made it suitable to play a regional role, and then the demand for the coal and uranium found in its surroundings created many jobs, with the forced industrialisation introduced by socialism accelerating population growth. However, as extraction became uneconomical, thousands of these jobs were lost, bringing about

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a decrease in population. In the case of Pécs the question should be asked whether the phenomena accompanying this structural transformation (job losses and labour migration) represent a crisis to be resolved or whether they are merely a natural consequence of change. Is it enough to develop the health, environmental and culture industries, guaranteeing 'quality of life' to the 'new industrialisation'? Are the, essentially service-type, developments sufficient to create a new development route? To what extent should the market be given a licence to revitalise our historical cities? Do local authorities have adequate tools to keep the processes in their own hands? Is it a good thing to use EU and state funds only for creating local conditions for the effective market? Do we think in terms of provincialism or, at best, the luxury of local elite culture if we wish to use our historical inner cities differently?

In European terms, Pécs can be considered as being of no more than modest size, although in Hungarian terms it is a large city. Following the 1920 Treaty of Trianon, it has remained one of the five largest (after Budapest), the largest in Southern Transdanubia Region and its unofficial centre. Its development or decline is an issue of national importance which concerns the whole region. The capital and the other larger towns or cities together could not support the development of five major provincial cities or regional centres, and so the various concepts and programmes relating to the latter failed one by one. If the opponents of an urban hierarchy manage to have a city voluntarily relinquish any of its central functions (under the influence of polycentrism or as a consequence of a misinterpretation of networking) there is a real danger that it will not be able to cope alone with the subsequent decline and to settle smoothly into the role of a medium-size town (even in European terms).

This study starts with a short historical review to give the reader an opportunity to judge the characteristics of the development of the town and the potential for possible strategies to be realised. However, we start neither our presentation of the structural crisis nor that of progress towards development with the 1990 regime change, for the simple reason that both had started earlier. The changes, economically and politically unsustainable, which appeared even in Hungary did lead to the change of regime, but, unfortunately, the first steps that led in the wrong direction contributed to the fact that the crisis has lasted until today.

The EU's current support system is incapable of handling cultural and regional disparities and differing aspirations, and it is impossible to solve the problems of 27 countries with the same strategies – even in regions in decline – and such interventions as are currently possible inevitably strengthen globalisation trends. According to the Lisbon Strategy, the EU's urban policy (as rephrased) in practice favours the bigger cities and strengthens still further the trends towards concentration. To close the study we present the specific strategies of Pécs. One of the latest key programmes was the European Capital of Culture (ECoC). This paper fits into the literature on ECoC tenders and projects (Sadiq *at. al.*, 2003; Boland, 2010).

2. THE HISTORICAL DRIVING FORCES OF DEVELOPMENT

In studying the driving forces of development in Pécs three sets of factors have been identified:

- central location/functions;
- culture, multiculturalism;
- industrial development.

2.1. Central Location/Functions

Historically, Pécs is a central place – central in terms of religion, culture, commerce and administration. These functions reinforcing each other developed the town as a regional decision-making/power centre, and it was, therefore, for several centuries the most important town of the region, the largest and most important from the economic point of view as well.

In the European Bronze Age it was a *node on the North-South trade route*. In the 1st century the Roman Empire conquered Pannonia, and in the 4th century Sopianae (the Celtic-Roman name of Pécs) became the *headquarters of the Province of Valeria*. From that point the town started to acquire and hold its spatial-organising, regional role. After the foundation of the Hungarian Christian state Pécs became the *seat of one of ten Hungarian dioceses*. After 1526 the town came under Turkish rule for 143 years, but, following their initial devastation of the town, the Turks developed it as their own *centre* – which is still evident today in various memorials of the Turkish Era. After the Liberation in 1686, the seat of a Roman Catholic diocese was re-established and Pécs was made a Free Royal Town by Maria Theresa in 1780. This involved the assumption of central public administration duties and meant that Pécs was subject neither to county nor episcopal rule. As a result of the reorganisation of public administration, the *town became the centre* of Baranya County and from this point onwards County public institutions were continuously developed. In 1786 Pécs, for a short period, became a *regional public administration centre* from where six counties were administered.

As a result of the Trianon Peace Treaty following the First World War, certain large regional centres of Hungary were incorporated into neighbouring countries (Zagreb, Kolozsvár/Cluj-Napoca, Pozsony/Bratislava etc.). The newly established national borders took account only of the interests of the new, successor states, and so much of Hungary's border regions lost traditional centres and the larger towns an essential part of their economic catchment area. From this point also, Budapest, earlier the capital of a country with a 20 million population, became the capital of a much smaller country in population terms, whilst cities in the second rank of the hierarchy crossed borders. Among those cities which remained within the national borders, Debrecen, Szeged, Pécs, Győr and Miskolc (which might

have been considered relatively large in Hungarian terms) assumed a regional role, and, also within the new borders, Pécs strengthened its South Transdanubian centre role and saw its population increase even between the two World Wars.

2.2. Culture, Multiculturalism

Pécs was one of the multicultural centres of a multicultural country. In the 11th century the first bishop established a school in the town, and in 1367 the first university of Central Europe was founded. Pécs became the second centre of the Hungarian Renaissance and an important cultural intermediary link with Western Europe. The first public library in the country was opened here in the 18th century. In provincial terms it was relatively early – in 1800 – when the first theatre was built and today no fewer than five repertory companies work from here. In 1848 the first local newspaper was founded. In 1923 it became once more a university town with its cultural life relatively lively at national level.

The rapid economic development of the first two decades of the socialist era extended the borders of the cultural sphere. New public museums were established in the city and its theatrical, literary, musical and artistic life was enriched. After Budapest, Pécs has the greatest number of museums, galleries and cultural programmes, and no other provincial town has as many nationally and internationally recognised artists in residence as Pécs. The cultural elite of the town were constantly able to maintain their artistic freedom to a remarkable extent and provincialism also failed to constrict the workshops operating here.

Pécs University, with more than 31,000 students, almost 2,000 lecturers and 200 educational programmes is today acknowledged as one of the largest universities in the country and the biggest employer in South Transdanubia, with a budget bigger than that of the City of Pécs. The students enliven the town and represent an important source of income for local businesses through their normal living expenditure and also for residents through, for example, rents.

The variegated ethnic pattern of the town has mellowed with the passage of time, but the town took shape as a multi-lingual and multi-religious community, and this multi-culturalism has remained significant to the present day. In 1816 the population of the town was divided fairly evenly among Hungarians, Croats and Germans and a significant proportion spoke all three languages. By 2001, 93.86% of the population claimed to be Hungarian (although an important segment has multinational roots). A further 3.16% claims to be German, 1.17% to be Roma (although the true figure is certainly higher) and 1.06% to be Croat. No fewer than 14 ‘other nationalities’ also live in the town. During recent years the number of foreign students has dynamically increased and Pécs today has citizens of 18 different nationalities. The city administration, in fact, incorporates several ethnic minority local councils and several ethnic civil organisations which enrich the multicultural nature of urban life – for example, the Croat minority has its own national theatre.

2.3. Industrial Development

Industry became the most important force for development of the past 150 years, and industrialisation also had its classical effect on the urbanisation process. From the middle of the 19th century, the mining of black coal accelerated the transformation of the economy and of society, and Pécs attracted both international entrepreneurial skills and high-quality labour, so forming new social strata. In 1848 the Brewery opened and, in 1853, the Zsolnay Ceramics Factory was established, later becoming world-famous. As a result of the growth of the railways, of modern state administration and of the development of an institutional network, Pécs strengthened its regional role, whilst, at the same time, a modern urban infrastructure (waterworks, tramways, public lighting etc.) was built.

Between the two World Wars the economy of the city was regenerated only slowly – as a result of the loss of its markets and raw material resources: the dominant characteristic was stagnation rather than growth. After the Second World War a new upswing occurred, due to the socialist government's industrialisation programme and due also to urban development closely related to this. In the continuing development of the city, it was coal-mining and the start of uranium-mining which were the principal factors. In the 1950s the city incorporated the surrounding villages, and, with the unification of public administration, the majority of the coal- and uranium-mining areas belonged to the city's administrative area. Due to the significant developments in mining, the number of jobs and of immigrants increased rapidly. The population growth essentially created the need to build new residential areas. This totally changed the morphology of the city and a far-reaching change was also visible in society.

The number of residents in Pécs reached 170,000 by 1980, and in the 1970s and 1980s, according to urban development plans, Pécs was to be expanded to a city of 300,000 inhabitants – something which has never been achieved. On the contrary, the city's population has continuously declined since 1985, and it has, in fact, lost 12.33% of its population over 20 years, a significant proportion of these later emigrants being highly qualified. They mainly move to the more developed regions of Central and West Transdanubia, whilst those who migrate to Pécs are generally less qualified.

3. STRUCTURAL CHANGES: DECLINE AND REGENERATION

The decline and flourishing of a region or a city do not consist of separate, sharply defined periods but a process of restructuring comprises both. This is true both of cities in Eastern Europe's ex-socialist countries as well as of their West European counterparts which are either struggling with the problems of structural

transformation or have already overcome them. The most important difference lies in the fact that, in the post-socialist cities it is not only a matter of the problems of a crisis in one exclusive segment, the transformation of 'brown field' areas or, perhaps, specific residential areas or social problems, but rather that *everything is being transformed at the same time and the whole process is so much faster*. The city management needs to operate in a continuously changing legal environment, often with former personnel in new roles. With the lack of adequate 'own resources' there is less chance of integrated endogenous development, and a greater possibility that outside factors will be decisive or that external patterns will be followed. After the Second World War a forced transformation was already in effect, dictated from outside and from the top throughout the states under Soviet influence. In this period, uniform institutions were established which took no account of national characteristics. History showed such transformations to be an essentially negative experience, since neither an economy nor a society was created which was sustainable.

The slow but sure collapse of the socialist system, the sales of key segments of state property, the repeal of earlier laws and the closure of companies inevitably led to job-losses and a change in the pattern of income (the 'softening period'). During deconstruction, different social groups sink into crisis, particular city districts lose their earlier function and the associated quantifying indicators worsen. However, at the same time, this does create opportunities for institutional quality transformation, and we may see, in parallel, a start to the reconstruction of the 'rust belt', to the retraining of the unemployed and to the setting-up of new companies. At first, these may bring essentially positive changes only to certain people, businesses and to specific parts of a town, but, albeit slowly, the new positive trends are reinforced and integrating forces move the system in the direction of equilibrium, with the quantitative indicators now showing these changes (the 'hardening period').

3.1. Decline

In the 1980s, in line with the country as a whole, a strong transformation movement came to life in Pécs, and the 'ghost of capitalism' was visible in more and more places. Initially, within the socialist companies there was an attempt to reinforce the peoples' 'stake-holding' and increase productivity. Following this, an increasing number of small businesses started to operate, and so the private sphere was broadened, whilst, as the old markets of Eastern Europe became insolvent, a number of socialist companies were unable to integrate into the world market. As the extraction of black coal became uneconomical, deep-mining totally ceased to operate in 1987. In 1980 there were still 13,133 employed in mining, but only 4,260 in 1990. By 2005 only 405 people still worked in the mining industry, and

even those were involved in re-cultivation. Most of the giant socialist companies were broken up into smaller units (for example the Pécs Glove Factory), and these were then either privatised or liquidated. The remaining major companies were downsized and, without exception, all underwent a change of ownership. The growth in population and in the number of jobs available, visible for several decades, came to a halt, and the city embarked on a downward trend. The collapse of socialist industry was shown in the numbers of employees. Many of the older work-force had been able to retire under favourable conditions, so squeezing the support system, whilst the remainder were absorbed by the widening circle of financial, commercial and public services. The number of small businesses increased, but a substantial number of these were 'forced entrepreneurs' ('necessity enterprises'). In Pécs it was possible to keep the unemployment rate below 10%, although these objective statistical indicators do not stand up to international comparison.

The victory of the market economy is a matter for celebration, but the route taken was a reason for anxiety. During the pre-privatisation period and prior to the change of regime (essentially at the very beginning of the 1990s) the management of the (socialist) state companies together with *the former political elite managed to acquire property*. As a result of the change of the regime, some of this public property which had been earlier handled by them as though it were their own, was made legally so – their private property. They used their influence even to sell state property to foreigners. This was a problem and remains so today in that privatisation did not take place in line with clear consensus-based strategy. The real aim was not to maximise state or local authority revenue or to optimise efficient operation, but, in personal or party political interests, to acquire property rapidly. Quite frequently, the reason for foreign privatisation was not to guarantee the continuing operation of factories and to preserve employment, but to gain access to markets or to the profit achieved from selling the property. Production at many factories, therefore, simply stopped and entire production chains collapsed.

After the change of regime, much – the marketable part – of the social rented housing-stock, was sold at low prices to the occupants. This often created condominiums with mixed ownership, and the potential for renovating this deteriorating stock was further reduced by the fact that the residents had no money left to renovate the house. Those with money spent it only on renovating their own flat, with the result that the general condition and external appearance of the house, together with its thermal insulation did not improve. In Hungary, even in international comparison terms, the proportion of privately-owned housing is quite high, one reason being that, in the socialist era this was, almost exclusively, the only legal investment opportunity. For decades, a significant proportion of families invested their modest personal disposable income into their flat or house and used their free time to modernise it.

3.2. Regeneration

During the last decade and a half, private investors have had the greatest influence on the economic and physical development of Pécs, and the local authority lost its leading managerial role. Central government has also lost its development influence, and, currently, at least, EU support is also of marginal importance.

3.2.1. Market Forces

‘He who pays the piper calls the tune’. The developments in Pécs were determined by the capital investors who arrived here and the town was swept along by the process.

Pécs is traditionally a commercial centre. Private investors first appeared in the trade sector – identical effects influencing Pécs as all other towns of similar size in the EU’s new member-states. The only differences can be seen in the names or logos of the companies. Along the roads as they reached the outskirts of the town there appeared new trading estates – almost exclusively as green-field investments. Huge sites were occupied by cheap, freestanding, light-construction buildings and their car parks, and in Pécs, as in so many other towns, the same picture catches the eye of the visitor. These commercial chains (METRO, TESCO, PRAKTIKER, BAUMAX etc.) locate the same buildings in each city and ‘local adaptation’ emerges only in terms of the floor space demanded by the customers. The old commercial units existing in Pécs could not cope with the competition from these newcomers and so, without exception, closed or changed ownership. The new arrivals have changed customer habits from public transport to leisure-time activity. In Pécs, in the evenings, those who have the money eat Moroccan paprika or Italian fruit whilst watching the same commercial TV channels in West European-branded clothes made in China, as do other European citizens.

Retail chains consisting of smaller shops appeared everywhere in the city. These basically have two forms. There are some which, for the most part, took over old chains, and in these the only change was to the stock; there was no change in the outward appearance of the city. Examples of this category are SPAR, MATCH etc. There are, however, others (for example, PENNY MARKET, LIDL, ALDI) based on standard, prefabricated modules, architecturally of low quality; and these harm the townscape. The operators are not even willing, for example, to use roof tiles which harmonise with surrounding buildings.

A major new shopping centre (the ARKAD) was built adjacent to the very centre of the city. This comprises 130 shop-units spread over 35,000 m² at a cost of €100 million. This, in local terms, huge enterprise gave new impetus to the profile of the small, inner-city shops, to the collapse in value of Pécs-owned properties and to the change of use of inner-city space. Pécs does not have sufficient demand for ‘luxury’ shops to appear in the inner-city shopping streets offering higher

quality in more up-market surroundings; for the time being at least, the trend is in the opposite direction. In the historical shopping streets (now pedestrianised) the number of shops offering cheap goods from the Far East for the lower-income strata of society has grown due to the decline in the value of shops and in rents! The new shopping centre is in foreign ownership and the larger retail units are rented by larger foreign chains, with a mere handful of local traders still fighting for turnover to cover the rent. In this new 'cathedral of consumption', Pécs residents spend the bulk of their income mainly on foreign products. The owners and employees of shops forced to close can, if still young enough, find a job in these new establishments for the statutory minimum wage.

Despite the city's master plan and local regulations, the retail chains choose their location and design according to their internal philosophy. They choose on the basis of their own particular aims for the site, and then they lobby and bargain for the changes necessary for permission to be granted. The town, struggling with financial problems, was willing to modify its own master plans and give permission for individual schemes simply for the sake of the income from selling the sites.

There were fewer industrial investors, and they brought smaller visible changes to the life of the city. However, if we look merely at figures, then this transformation was a more successful story than that of the retail trade. The brewery, the dairy products factory, the bread factory, the meat products factory and the machinery companies were all privatised. In the machinery sector the number of jobs has not declined until this year. The threat which the transformation of the industrial sphere means for the city is that neither owners nor even managers have integrated into local society or into the local economy. Their tradition of mobility is quite strong and so their local future is uncertain.

The 150-year old Zsolnay ceramics factory means more for the city than a simple production company. It is a symbol, a cultural icon of the town, a historical monument. It has always been a good example of the fact that culture (that is, art accompanied by the latest scientific discoveries) can generate products which are marketable world-wide. The decline of the ceramics industry in the world market and the appearance of cheap, Far Eastern products put pressure on all similar European factories, and the Zsolnay crisis was intensified by uncertainty surrounding both ownership and management. The number of employees declined to no more than 15% of the level of 20 years ago.

3.2.2. National and European Union Projects

During the socialist era the state participated directly in the development of settlements, and it was not a rarity for state companies to undertake public duties. In the 1980s such activity began to disappear, and after the change of the regime, in addition to the basic, standard support grants, settlements had only project

applications through which they might be able to obtain extra funding. Only major state investments were exempt from this. In Pécs the reclamation of the old mines and mining areas (now closed and with no legal successor) belonged to this category. Within the framework of this reclamation programme a new industrial area was established on the old coalmining area which was located within the administrative boundaries of Pécs. The airport was largely built from regional funds and is currently operating at a loss. The motorway between Budapest and Pécs has been built as a Private-Public Partnership, but it was the most expensive way of finance.

During the last few years, EU and Hungarian state funds have come to complement each other, although there are opportunities only for financing common projects. The first National Development Plan (Community Support Framework 2004–2006) and the National Strategic Reference Framework as accepted for the 2007–2013 Programming Period and the Operative Programmes require 15–50% in ‘own resources’ (i.e., co-finance), which use the greater part of Hungary’s state development resources.

During the EU Pre-Accession Programmes, the city gained little in the way of funds. One important public utility development project was completed within the Instrument for Structural Policies for Pre-Accession (ISPA) Programme. In this, the city’s sewage system was extended and the problem of the protection of the water table was solved. The total cost of the investment was €26 million, 50% of which was provided by the EU, 40% by the Hungarian state and 10% by the city of Pécs. From the Regional Operative Programmes (2004–2006) the city was given funds for reconstruction work on the early Christian monument complex, which is a UNESCO World Heritage site. Besides these, however, only a few smaller projects were assisted. *To summarise, we can say that, to date, the opportunities for funding applications to the EU have given no significant impetus to city development.*

4. PÉCS DEVELOPMENT STRATEGY

In the face of these negative processes, Pécs continues to look for a solution to the economic and social crisis and tries to adapt itself to current economic, political and regional structural conditions. In the centre of its development strategy are the knowledge-based economy and culture-based development.

In recent years the town has sold off the whole of the marketable part of its property portfolio and, in addition to this final disposal, it has sunk deep into debt. For the most part it can only carry out its own development plans if it can obtain national or EU funds – by an application process. *Planning, therefore, is totally and constantly funding-oriented.*

After the change of the regime, specifically in 1995, the local authority agreed its first complex urban development concept, as the result of comprehensive

planning. This recognised those European urban development driving forces with which Pécs could reinforce its position in the European, national and regional division of labour. As the city cannot influence external effects (for example, the crisis, the chronic lack of development resources, Pécs' natural resources being depreciated in the international market) the city set out its aims for developing a knowledge-based economy and formulated its vision of a service-providing city. The general objectives were:

- a 'healthy', 'liveable' city, offering appropriate services and social public atmosphere together with an organised, demanding settlement environment, with which residents can identify themselves whilst attracting investors and tourists;
- a medium-sized city, according to European standards relating to size, population and territory, which retains and looks after its historic atmosphere, intellectuality and established architectural style;
- a city attractive for its intellectual, cultural and historical values and specific life-style opportunities rather more than as an industrial town;
- its economy should be characterised more by technical development, than by less demanding mass-production;
- a regional centre, a service-providing city (an intellectual, technological and R&D centre, a tourist destination, an administrative centre, a regional hub of national and international connections and a religious centre);
- an integrated part of the European City network, an active participant in the Central European City division of labour.

In accordance with these aims, the main priorities and the programmes targeting them were defined. (These were to be harmonised later with EU requirements). Action was to be taken to modernise the city's administration, and the range of tools was also covered by the document, which – even today – can be regarded as up-to-date and conforming to EU norms.

On two occasions the concept was revised, up-dated and transformed into a strategic plan. Besides the basic objectives and concepts, greater emphasis was given to the development of the knowledge-centred economy and human infrastructure. On the basis of the plan, sectoral operative programmes and action plans were assembled. Two programmes would have an important effect: a centrally initiated Development Pole Programme and the 'European Capital of Culture – Pécs 2010' programme.

4.1. Pole Strategy in Competitiveness

Hungary is a mono-centric country, and, apart from Budapest, there are few provincial cities – among them Pécs – capable of retaining or regaining their international competitiveness with central support, and so the National Development Policy announced the 'pole programme'. This is also an element of the NSRF,

and the aim is, on the one hand, to balance the ‘capital-centred’ character of the country, and, on the other hand, to enable these few regional centres to become the driving forces of development in the regions. For this purpose, the five larger cities of Hungary had to prepare individual competitiveness pole-strategies. In Europe in general these growth-pole strategies are mainly industrial development programmes, but the capacities of Pécs simply do not allow the city to be competitive in this sector. Pécs strategy, therefore, chose an *alternative direction for development*, under the title of the *quality of life pole*. This mainly concentrates on the development of services necessary to the quality of life and healthy living and is devoted to developing the health, environmental and culture industries. The health industry programme includes medical treatment, the production of healthy food, sports facilities and also medicinal and wellness tourism. The environmental cluster involves the creation of the eco-city, which involves activity in energy, waste-management, landscape protection, research etc. The most important development programme of the culture industry is the European Capital of Culture – Pécs 2010 programme.

The Pécs strategy is a system of sub-programmes reinforcing each other, but the difficulty facing completion is that its various programmes were planned to be carried out from the National Strategic Reference Framework (2007–2013). Further problems emanate from the fact that the areas included have, at most, one third of the jobs and this strategy is only appropriate, for example, for manufacturing industry which employs more than one fifth of the active labour-force in connection with the cooperation opportunities.

4.2. European Capital of Culture (ECOC) – the Pécs 2010 Programme

Due to its cultural traditions and artistic life, to its functions as a festival and education centre, the city, together with Essen and Istanbul, was designated a European Capital of Culture for 2010. The city was looking for a new identity and an economic role, and these were found by those who formulated the application to the EU in those driving forces alive before the city’s industrial development phase. For the economists it has always been clear that the health, environmental and cultural industries would be a good direction for development, although not sufficient for the economy of Pécs to flourish. Nevertheless, many people simply expected that the ECOC programme would automatically produce a significant impact on the economy.

The key projects of the Pécs programme were to be five in number:

– a Music and Conference Centre: the establishment of a modern, even by international standards, concert hall, which can also be used for other high quality events;

– the Zsolnay Cultural Quarter: the restoration of the site of the Zsolnay factory (a brown-field zone) with its historic symbolic values, the relocation of

production, renovation of the park and memorial buildings and their dedication to cultural functions;

- a Grand Exhibition Centre: the establishment of an exhibition area as an extension of the rich and varied range of museums and galleries, able to accommodate major exhibitions;

- a Regional Library and Information Centre: providing modern multifunctional information services to residents of the city and region. A joint project with the university;

- the Revitalisation of Public Areas.

Naturally, a number of programmes were planned to fill these investments and preparations for the projects were accompanied by wide-ranging civil and professional debate. Even today there is still much dispute surrounding the choice of premises and locations for the key projects. The revitalisation and consequent increase in value of the slum areas lying close to the inner city are important. Until 2010 most of the physical cultural infrastructure (libraries, museums, galleries etc.) was located in the historic inner city area, but, due to the ECoC programme a number of these were moved to new locations in the ECoC projects, so allowing the risk to emerge of a further devaluation of the historic centre. Another issue which needs to be addressed is that, should the demand for these functions not be maintained at an adequate level after the ECoC year, then who will maintain these new institutions – and how? Can their market-based maintenance be underwritten? We now know that, after the ECoC year, cultural institutions will not be self-supporting, but will be a financial burden on the city.

The project was significantly delayed due to the fact that ECoC programmes were implemented with funding from EU Structural Funds, which were only scheduled for the actual programming period. The calls for tender relating to action plans based on operative programmes were announced too late for the optimal timing of their launch, and the obligation to comply with strict bureaucratic procedures did not make the speeding up of programmes possible, with the result that investment projects could only be started in the second half of 2009. Consequently, most were completed only by mid-2010 and in 2011 instead of earlier. The 'supervision' by central government of programmes (rather than decentralisation to the local level) proved to be rather obstructive and slowed down the whole implementation procedure instead of facilitating it. Some of the privately funded investment projects (e.g. hotels) were cancelled due to the global financial crisis which emerged in the autumn of 2008. Despite these difficulties, the city remained faithful to its cultural mission and did not make any cuts in the cultural programmes as planned. Further it assumed a heavy burden in purchasing from the USA a private collection of pottery manufactured in the Zsolnay China Factory of Pécs at the turn of the last century, which is to be displayed in a new museum.

5. CONCLUSION

5.1. Funding-oriented Planning Instead of Strategic Planning

Albrechts (2004, p. 747) defines strategic spatial planning as: ‘a public sector-led socio-spatial process through which a vision, actions and means for implementation are produced that shape and frame what a place is and may become’. In the case of the new member states the process of EU-led planning was a very special occurrence. The EU bureaucracy itself does not prepare strategic plans; it implements its structural, cohesion and regional policies (ESDP for example) by supporting Structural Funds and the Cohesion Fund. EU member states can be divided into two groups – by deciding whether they are or are not beneficiaries and to what extent they need this funding. The new EU member-states (the post-socialist countries which joined the EU in 2004 and 2007) attach high importance to EU funding for the continuation of their socio-economic transition, and so they are forced to adapt to the EU’s uniform standards. *In these countries we cannot speak about strategic planning or management in the traditional sense* (Mintzberg, 1990) but they are undertaking *strictly EU-objective and EU funds-driven planning*. These member states have as much chance of being creative during planning (NSRF, OPs) as a child when putting together the pieces of a puzzle. Different components should be fitted together during several trials for shaping a ready-made strategic vision. One must either fit the framework or development funding will not be received! The acceptance of rules means formal consensus. This kind of funding system is hindering the priorities of communities and decision-makers as, without these factors, countries, regions and settlements would have different strategic key issues. Habermas (1986) sets communicative action based on mutual understanding against imperative, success-oriented (or, in his words, strategic) action motivated by the interests of the powerful where the tool of persuasion is not argumentation but influence. He terms this a fragile consensus even if the strategist offers benefits that the other party finds acceptable.

EU funds are based on a mixture of strategist and incrementalist planning. Although using the term *strategic management* would be more appropriate than plan-making, the management of its implementation, monitoring, evaluation and feedback are parts of a whole (uniform) programming system (Farago, 2005). In making the National Strategic Reference Framework the ‘four-track approach’, the four types of rationality (Albrechts, 2004, p. 753) work in different territorial levels. It is specific from the standpoint that objectives and priorities (vision, mission) are specified at EU level for every country, while concrete strategic plans and operative programmes are prepared at ‘decentralised’ national and regional (NUTS 2 and NUTS 3) levels. The new member-states can exert very little influence on the objectives and on the operation rules of the current programming period (2007–2013) and so their specific features and concrete needs

are hardly represented in them. The affected countries and regions have scarcely participated in value rationality (Weber) and their contribution was not substantive (Manheim). The interest groups of the EU-15 set up the objectives and the post-socialist new member states could pursue functional, allocative planning (Mannheim, Friedmann) on the basis of instrumental rationality (Weber).

In the case of strategic (spatial) planning, the widest social involvement or partnership should be ensured when objectives and priorities are set. Later, there should be an increasing role for experts as planning goes ahead. During the preparation of EU planning documents (NSRF, OPs) partnership and social inclusion become *formal*, since citizens are not involved in preparing the programming period, in debates on cohesion, in reports and guidelines and in adherence to the rules. Communication becomes one-sided as there is no way to introduce such objectives and priorities which are not included in the programming period's directives and regulations. Nevertheless, the actors on behalf of the Commission do not even allow any deviations from non-compulsory directives (guidelines, 'Vademecums' and aides-mémoire). They should comply with them not only in content but in terminology also. Therefore the chances for communicative rationality through debate in people's 'life word' are very limited and it cannot be integrated into EU's planning system. The issues raised by EU citizens, local and regional communities are mostly opposed by pragmatic arguments only (e.g. the lack of funding sources, the incompatibility with rules approved) but people are not involved in the real process of value-selection. No steps have been taken towards collaborative planning (Healey, 1997).

The preparation of the next programming period has started, but it is not yet too late to involve in greater extend the actual beneficiaries of funds in the preparation of directives and utilisation provisions for the programming period starting in 2014!

5.2. Spatial Structure, Polycentrism

Structural changes are necessary not only in the economy but in the regional structure also. Hungary is a mono-centric country (see ESPON, 2005) and the difference between the functional wealth of Budapest and other European capitals is much smaller than that between Hungarian and West European regional centres (NUTS 2). In Hungary there is a 90-year old debt to be paid to develop the larger provincial towns able to act as effective regional centres! These 'counter-poles' could assume the burden from Budapest and the Central Region.

Part of the Pécs regional institutions (central functions) are threatened by that populist policy which considers that a settlement hierarchy and vertical functional division is essentially bad and, not taking into account the economic and sustainability arguments, wants to spread regional functions, basing its argument on democratic network cooperation. The fact that there is no explicit vertical and

horizontal functional spread among the towns and that each individual settlement is given a little from the central budget, shows that this is not enough for the existing structure to survive. In the medium term, and as a first step, Hungarian development policy should embrace *concentrated decentralisation* (politically unpopular) in which regional centres – amongst them Pécs – should be developed. Especially if the regional centres are not able to fulfil central functions, then NUTS 2 regions, as a regional level, must also come into question. In the post-socialist development period, a maximum of no more than a couple of towns will be able to do this independently and the trans-national/national functional urban areas can disappear from the map of Hungary, with only one metropolitan European Growth Area remaining – Budapest (MEGA3).

5.3. Dilemmas

One of the limitations to the regeneration of post-socialist towns and cities was the fact that their place in the economic division of labour is, even now, determined by essentially *external factors*. In Pécs the loss of traditional industrial jobs, the emigration of the young, highly skilled labour-force and the deterioration of the built environment all produced a pessimistic atmosphere. Indecision was increased by the fact that, due to the geopolitical situation (specifically, the closeness of the Balkan War in the early 1990s) and to the weak infrastructure, less operational capital came to South Transdanubia, the county and to Pécs than to the Central and North Western Regions of the country following the change of regime. With the exception of one company, the town was unable to attract serious industrial investment and the foreign-owned companies already settled here have a high degree of mobility. Retail trade investment improved both product supply and employment but damaged the historical architectural profile of the town by restructuring the city with no adequate concept. Old Hungarian companies were liquidated and most local, small retailers closed.

Once, the owners and managers of Pécs factories (for example, Zsolnay) were the leading citizens of Pécs, pillars of local society, who did much for the development of the city. In the socialist era both county and local party-leaders, together with the local council and company managers, competed for central investment, so that their 'own territory' could be developed the better. Today the owners of the bigger companies operating in Pécs are *impersonal*. Managers also move to the city only temporarily and they are interested in the development of the town only insofar as it provides appropriate operating conditions and contributes to external economies of scale and economic savings. Due to the lack of local identity they are not real stakeholders; they are not partners in planning.

One positive feature of this crisis is the demise of obsolete or uneconomic units and of unnecessary jobs, which compelled the town to formulate its new

vision – and then to do something to accomplish it. In addition to transforming its industrial activity, the town can also see a way to flourish by means of a new form of creative economy.

To develop the culture industry, not only the physical appearance of a suitable infrastructure and historic monuments are needed, but the creativity of its human capital is equally important! A new leadership culture style and a new type of management are necessary to create and sell culture as a product. Creative, tacit knowledge should be given the opportunity to operate on an everyday basis – despite international connotations, and reproduced in the local milieu. There is a need for cultural gurus for different types of knowledge of the various civil organisations and for new organisational management forms. This need can neither be fulfilled by politicians who are contra-selected and who are no more than intermediaries (who pass on matters of macro-policy locally), nor by company managers (who represent traditional economic thinking). Infrastructural and human conditions cannot be at a lower level than, say, the development of Information and Communication Technology, but this requires a different type of creativity.

The situation is similar in the case of the health industry. The city leadership is only one of the many stake-holders who can assist the university, research and the associated market players in the development of the new sector, but currently policy and administration are rather hampering this process. The health-care system reforms underway over the whole of Europe and the current restrictions rather deepen the crisis in the sector, and a solution is not in prospect.

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REVIEW ARTICLES AND REPORTS

Anna Kowalczyk*

THE ICONIC MODEL OF LANDSCAPE AESTHETIC VALUE

1. INTRODUCTION

Currently, the tools of modern information technology (e.g. Geographic Information System) give the possibility to create and analyse various kinds of models in written form, presentations or maps. The user can provide information about, for example, the division of geodetic ground and bicycle or tourist routes. They enable orientation in 3-D space of different districts or seeing the city altitude model on the layer of the city map. The basis for evaluation of existing spatial structures and for making decisions on development is a constant stream of data. Interruptions in access to data as well as incompleteness or low quality of data result in suboptimal evaluations and developmental decisions, which, in consequence, involves higher costs. Therefore, it is essential to secure constant creation and maintenance of databases, which are of fundamental importance for the functionality of GIS.

The aim of this research is to enrich GIS with an iconic model of landscape aesthetic value on the example of Olsztyn city. It is made by gathering, systematising and processing geodata that relate to city landscape aesthetics.

The aim is realised, among others, by determination of the way in which data is gathered to create an iconic model of landscape aesthetic value, and by using the methods of landscape evaluation and cartographic visualisations of the data gathered for GIS.

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2. SUBJECT MATTER AND BASIC SCOPE OF THE TASK

Olsztyn city is an industrial, educational and cultural centre of Warmia and Masuria. To a large extent, it functions as a recreational and tourist centre as well. The potential of the city brings the necessity to develop the latter. It is impossible to plan the optimal development without having proper geodata. Also, it is necessary to search for proper tools that allow tourism and recreation to be developed in Olsztyn. This article is an answer to those challenges.

The conducted research applies to areas within administrative limits of Olsztyn in 2008. The graphical landscape documentation of the city was made between April and June 2008, and it was the basis for further research. Thematic layers and the data of the EwMapa programme were used in the research, whereas the coordinates of the viewpoints for aesthetic landscape evaluation were determined by GPS. The visual maps and the ortophotomap of Olsztyn were additional sources of information.

In order to gather data for the analysis of Olsztyn landscape aesthetic values, a grid of basic valuation units was placed on the researched area (figure 2).

The choice of a basic evaluation unit is an important element in the process of evaluation and valorisation of space. Three basic ways of determining the shape and size of basic evaluation units can be distinguished (Bajerowski *et al.*, 2007):

- determining basic evaluation units as natural units of surface (facies, physiotores, ecotopes) acknowledged as homogeneous;
- determining administrative evaluation units, i.e. units with borders that are artificial and that coincide with the administrative division of a given area;
- determining artificial (geometrical) basic evaluation units of equal shape and size that are placed evenly and randomly on a map of a given area. The units may take shapes of squares, hexagons, triangles etc. (figure 1).

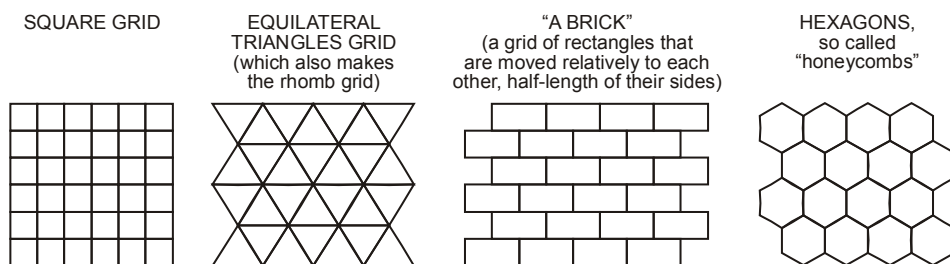


Fig. 1. Examples of geometrical shapes of basic units
Sources: authors' study on the basis of Senetra and Cieślak (2004)

The choice of the way in which basic evaluation units and their sizes are determined depends mostly on the aim of the evaluation and the researched area. The units consistent with the administrative division are mostly used in the research,

which is based on statistical information gathered in specified administrative units. In such a case it is easy to gather and process specified information. The problem lies in different sizes of the units, which make their surfaces incomparable, and in the changes of administrative borders of the units in time. The units based on natural borders ensure objectivity of the results, however, the results are difficult to compare. Moreover, it is not easy to adjust the methods of data gathering and processing (Bajerowski *et al.*, 2007 cited in Kowalczyk, 2009).

Geometric (regular) basic evaluation units are used in valorisation research (Senetra and Cieślak, 2004). While crossing their borders, the units do not coincide with statistical, administrative or natural units. The usage of these units makes it possible to compare them. It allows for convenient cartographic study (calculation of numerical values for given units), as well as convenient computer processing. Cartographic methods enable the construction of isarithmic maps that define the range of the researched phenomenon (Bajerowski *et al.*, 2007).

In the case of aesthetic evaluation of landscape, a regular grid is the most proper. It eliminates problems of interpolation, because the interpolator axes that link points of references do not cross and do not make squares. The vagueness of the borderlines of separate landscape zones makes it pointless to mark them precisely on the map; therefore, it eliminates the necessity of marking the grid for the second time. For the need of this study, a regular grid (bricks with 250-meter sides) has been used, which gives a basic valuation unit of 62,500 m². Overall, 1,533 basic valuation units have been marked (figure 2).

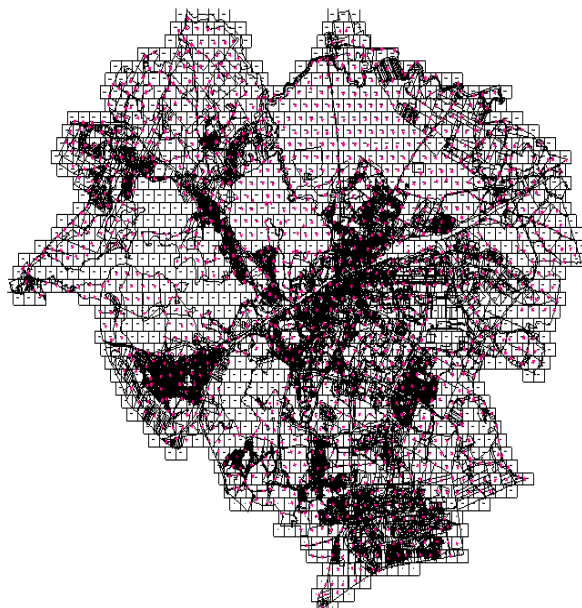


Fig. 2. A grid of basic evaluation units placed on the research area – Olsztyn city

Sources: authors' study

3. THE QUALITATIVE ANALYSIS OF OLSZYN LANDSCAPE

Aesthetically, landscape is the expression of environmental conditions, and as such, it is the basic criterion for the evaluation done both by a tourist – the exploring person, and the inhabitant of a given place. Their evaluation influences the aesthetic value ascribed to a landscape. Consequently, it decides whether a given place is eagerly visited, and if it measures up to aesthetic expectations.

For the purpose of Olsztyn landscape evaluation, 1,336 photographs have been taken. The photographs have been used for several reasons: quick recording, the possibility of instant assessment of their technical value and, if necessary, retaking the photos. Additionally, they enable a reliable (objective) evaluation of image (landscape). The photographer tried to capture the whole area of a specific basic unit to make the photo represent the area as accurately as possible. All pictures were taken in the same season, with similar weather conditions. After choosing the specific place of a given evaluation field, the photo of the landscape was taken with a digital camera and the evaluation unit was marked on the analogue map (in accordance with the number of the photo on the memory card). After that, the landscape valuation card (table 1) was filled in. The city landscape evaluation card is a logical complement of the evaluation. It assesses the condition of, inter alia, the elements of the atmosphere of a given place (such as noise, smell and aesthetics). Initially, the photos were appraised from a technical perspective. Subsequently, the photos were segregated according to the numbering of the basic units. Finally, 1,336 photos have been appraised.

Table 1. A completed city landscape evaluation card
(the assessment scale of particular elements – 5)

No.	The elements of the assessment of unit no. 582	Score
1	Aesthetics	0
2	Land development	0
3	Communication routes	3
4	Smell	0
5	Noise	0
6	Litter	3
7	Flora	3
8	Signs of vandalism	0
	Σ	9

Source: authors' study.

While assessing the photographs, their technical quality or the weather at the time they had been taken were not taken into consideration. Comparing the photographs, the attractiveness of a place was determined depending on the willingness to stay there (e.g. for tourism or leisure). The photographs have been assessed using the method of direct comparison by Bajerowski *et al.* (2007), as the modified impressions curve method. It was based on comparing each and every photo on a specially designed diagram, which had a form of a matrix (figure 3). In this method, for the purpose of the study, the collection of photos has been used as a space-time route.

The assessment of the photographs was conducted in several stages in the Selektor programme. Because of a very large number of photographs, they were grouped into thematically organised files (e.g. apartment blocks, family houses etc.). This operation was inevitable, as working with a single file (containing all photographs) would take much time; besides, the flaws of the programme eliminate such an option.

The next stage was to create a file of representative photographs, containing each photo from the remaining thematic files, and to carry out the evaluation in the Selektor programme. The third stage consisted of the assessment of the thematic files. An example of the landscape evaluation matrix is presented in figure 3.




					■ ■ ■
	XXX	^	^	^	■ ■ ■
	<-	XXX	^	0	■ ■ ■
	<-	<-	XXX	^	■ ■ ■
	<-	0	<-	XXX	■ ■ ■
■ ■ ■	■ ■ ■	■ ■ ■	■ ■ ■	■ ■ ■	XXX

Fig. 3. Example of the landscape evaluation matrix
Sources: authors' study on the basis of Bajerowski (2000)

After each session the statistics were written in the Excel programme. As a consequence, matrixes of comparison with the statistics have been created. In the next stage, a list of the most and the least attractive places was made, and the score obtained during the evaluation was put in order in the Selektor programme. This set of points was used to work out the iconic model of the landscape aesthetic value. Additionally, it offered valuable information about the condition of landscape and its structure in the researched area.

Figures 4a and 4b present landscapes of the highest aesthetic value.



4a



4b

Fig. 4a–4b. Landscapes of the highest aesthetic value in the researched area of Olsztyn

Sources: photographs by A. Kowalczyk 2008

4. GRAPHICAL MODEL OF LANDSCAPE AESTHETIC VALUE

The choice of places that were about to be photographed and assessed was made during the visit in a given area.

The setting of the interpolator axis and the making of the interpolation (i.e. indicating the location of a chosen indirect value among two values of the reference points) were made in the ‘Surfer 8’ programme.

The inverse-square weighting method has been used for the study of the numerical model of landscape aesthetics of Olsztyn city. In the data obtained with this method, the mean mistake of the interpolation was the smallest (minimum 30.30, maximum 75.60). A mean mistake of a similar size appeared in the nearest neighbour method as well.

The iconic model of landscape aesthetics of Olsztyn city is shown in figure 5.

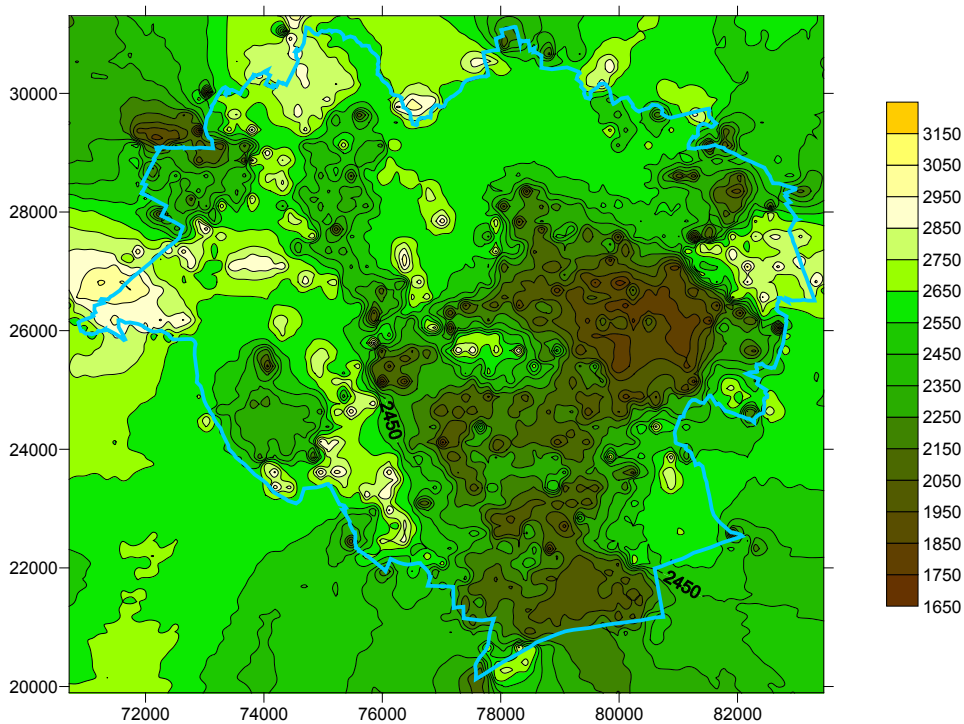


Fig. 5. Iconic model (of the actual isarithms – ViewLines) of Olsztyn landscape aesthetic values created in the ‘Surfer8’ programme. Interpolation in the inverse-square weighting method. Visualisation in the contour-map method. The scale of landscape aesthetic value ranges from 1,650 points – the lowest aesthetic value to 3,150 points – the highest aesthetic value
Source: Kowalczyk (2009)

As one can notice in the model, the highest aesthetic values of landscapes cumulate in the north-western and the western parts of the city. Such situation is caused by, inter alia, the presence of large amounts of greenery. The most attractive landscapes combine the harmonic presence of trees, lakes, rivers and architecture. The results of the analysis show that the most valuable landscapes are the open ones. The presented model shows the relation between the landscape and the existing architecture. The multi-family buildings close the space, which makes the landscape unattractive. Consequently, the darker colour on the model indicates the areas of intensive housing and industrial development.

5. CONCLUSIONS

As a result of the study, the author has collected, systematised and analysed the geodata of the aesthetic qualities of Olsztyn city landscape. A rich database of Olsztyn landscape values has been created. It consists not only of the results of a given value assessment, but also the photographs of landscapes that have their location coordinates. They can be ascribed to a specific place during the analysis of the landscape interior, and metadata can be added as well. Moreover, the database includes the urban landscape valuation cards that were completed in the view points where the photos were taken and the location coordinates were registered. The cards consider the elements of the area's atmosphere, such as noise, smell or signs of vandalism. The obtained iconic model of city landscape aesthetic value combined with various thematic layers (e.g. the lie of the land, land development plans, tourist routes or communication) can provide very important information that is essential to further strategic planning of urban development. The collected data and the obtained model are a valuable source of information about:

- the continuity of landscape aesthetic value;
- the relationship between the aesthetic value and the estate price in the city;
- the need for protection of given landscapes in the city;
- the need for changes in specific landscapes and the places where they should be implemented;
- how tourist routes or educational trails should be planned so that they run through the places in the city that are unique;
- how to plan the space so as not to damage any valuable view points.

The created model should be an essential element in the process of analysis of various spatial relations and aspects of spatial development of the city. Therefore, it is a valuable source of information and it should be used for landscape information management in the process of spatial planning that promotes a fresh outlook on landscape values of cities.

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BOOK REVIEWS

Rob I. MAWBY, Richard YARWOOD, *Rural Policing and Policing the Rural: A Constable Countryside?*, Ashgate, Farnham 2011, 261 pp.

This timely text introduces rural policing and the practicalities of policing rural areas in a variety of geographical contexts. The book begins by arguing that there has been a lack of attention – paid by geography – to the study of rural policing. The contributors argue that rural policing can act as a lens in which to view rural society and the various representations that have become commonplace, such as the concept of the rural idyll.

The opening research chapter 2 provides a comparative perspective across differing countries such as Australia, France and New Zealand. Differing structural arrangements are present within these countries: in Australia, policing vast territories means that resources for police work become stretched, which links with a general service provision discourse akin to that in existing studies of rural villages and market towns in developed countries. The Gendarmerie Nationale, a military force, police the rural areas of France and have a better public perception compared with their urban counterparts, the Police Nationale, a more special police force that is seen as being less flexible compared with the gendarmes of the Gendarmerie Nationale. The gendarmes are seen as more embedded in their local communities (see chapter 5). New Zealand, with its sporadic population structure has traditionally had to rely on local volunteerism in order to police remote rural communities.

In chapter 3, focus shifts to Canada and the United States. Operational budgets are differential between urban and rural forces in both contexts and the public, as with other developed countries, expected the police to adopt a ‘generalist’ role. This role is represented as being at odds with the economic reality for many forces in Canada and the United States. A generalist role, which features throughout the book, involves officers engaging in day-to-day police work – walking the beat, preventing theft and anti-social behaviour and engaging with the local community. In other words, the officers were expected to take on many roles related to law enforcement.

Chapter 4 focuses specifically on policing the outback of Australia, and provides more detail on some of the key issues regarding rural policing across vast expanses of rural territory. Barclay *et al.* note that existing work in the area has tended to oscillate between material and representational space – with the implication that focus on spatial practices of people has been neglected in a rural policing context.

The book offers some examples of the lived practices of ordinary people. One such issue was the pay of rural officers in the Australian outback. A rural posting often entailed low pay and was seen by some stakeholders as a means to gain promotion to an urban police force where there would be more resources and promotion opportunities. Another related issue was the lack of employment for partners (often female) and for those with skills and qualifications; it was often difficult to obtain quality employment.

Linked to the aforementioned gender inequalities related to rural employment, domestic violence was often found in an Australian context to be under reported. The police had a difficult task to, on one hand, be seen to become integrated into the local community (which thus affected relations with indigenous Australians) and on the other, perceived as being ‘too close’ to the community and therefore becoming susceptible to not taking action in order to preserve community relations. Police officers in such remote locations as the outback struggled with a lack of resources to open rural police stations and many were unmanned at night, which did not aid the reporting of domestic violence.

By chapter 6, a neoliberal discourse is outlined through the increasing use of police ancillaries. These ancillaries come in many forms, such as Police Community Support Officers (PCSOs) in a UK context and typically are lower paid and lack the powers of arrest. The introduction of ‘cheaper police labour’ appeared to reflect the economic realities of 21st century policing and the ingrained individualisation of many developed countries studied in the book (Although the case of New Zealand revealed that voluntarism could still counteract the trend towards using police ancillary labour).

Chapter 8 shifts the focus on rural policing to the non-human entities within rural space. CCTV cameras have been viewed as a panacea to the problems of recording rural crime. A key disadvantage highlighted of rural CCTV programmes was their inability to cope with the remoteness of rural settlements. The evidence presented suggested that CCTV did not lead to crime prevention and the police themselves recognised that the CCTV often shifted crime to areas without CCTV. The cameras offered the option of perceived safety and this appeared to satisfy the local residents. There was also public pressure to adopt CCTV when a competing town also had a scheme set up. The police were seen to stimulate implementation as often match funding could be obtained to make the scheme work and it, as mentioned, helped with public perception.

By chapter 9, neoliberalism becomes a key discourse for rural policing through the formation of partnerships. Police services were seen, by the public, as responsible for crime compared with parish councils that have limited funding. Government policy in a UK context has varied and rural policing is very low on the agenda apart from major events covered by Woods (see chapter 10) on rural protest. Pressure was also applied to have partnership structures in order to attract funding to make up for falling contributions from the public purse.

New Zealand, compared with other case studies, had managed to maintain a degree of voluntarism in the context of rural policing to deal with rural isolationism. This culture counteracts a remote settlement pattern and such voluntarism has been promoted in UK to deal with similar issues. However, the individualised nature of the economy and society present in the UK has not led to the same degree of voluntarism – as mentioned previously – citizens demand a police presence in rural areas and this was out of touch with economic realities, particularly in relation to current Conservative/Liberal Democrat coalition government austerity measures.

Whilst part I of the book focused upon ‘Rural Policing’ in a variety of contexts, part II examines the context of ‘Policing the Rural’ by implication, implying that the rural is a nebulous and hard to define concept which varies across space and time. Rural protests (chapter 10), such as those undertaken by farmers in the UK were highlighted as rural actors attempting to preserve the rural order against urban influences.

Recent events, which have featured in the popular media such as the Dale Farm traveller’s site, provide more recent coverage of policing the rural where ‘othered’ populations appear

still to be marginalised (chapter 11). The everyday practices and experiences of the travelling community have not, according to Halfacree, been investigated and this links closely with his three-space approach that has noted the dominance of materialist and representational analyses of the rural and neglected human practice. This can also be seen to link to the work of Henri Lefebvre and Ed Soja who have also employed a three-fold spatial architecture.

Chapter 15 provides a well-researched commentary on the low priority of policing wildlife crime. As with the other chapters in part II, a neoliberalist discourse is present with Wildlife Crime Officers (WCOs) linking wildlife crime to other forms of criminality in order to secure funding and resources. Police Officers were also found to be sceptical of policing wildlife due to it not being represented as traditional police work.

The overly romantic notion of rural policing in comparison with the economic reality appears to be a consensus within many of the chapters. The generalist role of rural police versus police specialisms of the urban forces and the US Sheriff model of accountability were held up as examples whereby local policing could not deal with diverse crime such as burglary and domestic violence. With elections for a Sheriff come political pressures to reduce the rights of defendants and issue harsher sentences.

To summarise, this book focuses on a much-neglected area of rural geography and employs criminology scholars in order to highlight that rural crime is increasingly important. The case studies provide a balanced comparison of the different police forces around the world, although work is still lacking in regards to case studies from developing countries and newly industrialised countries (apart from a focus on Africa) in a rural context. This would have balanced what is otherwise an excellent introductory text on rural policing suitable for undergraduate courses in Criminology and Geography as well as for policy makers and practitioners.

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Mari HVATTUM, Brita BRENNAN, Beate ELVEBAKK, Janike KAMPEVOLD LARSEN (eds.), *Routes, Roads and Landscapes*, Ashgate, Farnham 2011, 248 pp.

In this excellent edited volume, the significance of roads and routes for the current experience of place is studied from a variety of perspectives. Indeed, the 'mobilities turn' in cultural geography did not escape the attention of the editors and contributors, but it is fair to say that the present collection is at the same time more broadly oriented and more focused.

The focus is clearly on roads and routes, while the diversity of disciplinary and theoretical perspectives is quite impressive. This book is much more than a collection of essays. It places the new geography on a solid historical and sociological foundation, while systematically exploring the relations with urban planning and landscape architecture. The history of these applied fields is mined for the uses of roads to structure both space and experience, and, by consequence, subjectivity.

Editors and authors seem keenly aware that roads, as physical objects, and routes, as sequenced configurations of places, both enable and disable certain interpretations of

place and self, that they both open and close the world for the traveller. They are aware of the ambiguity of the road as a self-effacing point of observation and a physical object, as a place in itself and a place leading to other places.

None of the contributors falls in the trap of naive celebrations of movement, mobility, hybridity, fragmentation and nomadism. Neither do they simply reproduce the well-worn distinctions place/space and place/non-place, where roads, especially highways are traditionally on the receiving end. Both mobility and anchoring, both nomadism and striation, are seen as inextricable elements of ever shifting and historically contingent configurations – in line with the insights of Deleuze and Guattari, the theoreticians that inspired so much theorising of the weightless.

Indeed, everything is connected to everything, and everything thus shapes everything, object and subject, mind and matter, far and close, large and small. But this general principle spans a field of potentiality, and mapping and tracking the emerging and dissolving patterns in that field requires more than restating the pantheistic nature of nature in myriad ways. It requires all the efforts and the insights of other disciplines as well, the variety of methods embodied in them and the deliberation, checks and balances of interdisciplinary work. We believe that the authors achieved all this.

One imagines that these authors read each other's work, that they discussed the topics and theoretical framings of the book collectively, and feels that they respected the specificity and value of all the perspectives around the table. One can also notice that the authors considered planning and design as more than sites of deconstruction. Such deconstructions, well-informed ones, can be found here, but they never content themselves with the unveiling of hypocrisy or evil forces. They bring insight to the vexing problems of infrastructure planning and design that are indeed never merely technical issues. Roads and routes shape each other, they shape topologies and subjectivities, and they usually outlast decision-makers and their deliberations.

Infrastructure, such as roads, waterways and railroads, all discussed in this volume, therefore forms a legacy that moulds perception and experience in ways that escape their original determinations. In that sense they are, in science and technology studies parlance, actants. For that reason, it is also reassuring to see that this rich book is incorporating insights from that theory as well. It does not happen very often that Deleuze, Foucault, Latour, Kant and thorough historical and geographical work are not only combined, but also used in a mutually enriching manner, based on a sympathetic understanding of the strengths of each perspective and the associated methods.

One can locate the volume in the mobilities paradigm, and one can place it in the material turn in geography, cultural studies and sociology, a turn that was not necessarily new in (art) history and the design disciplines. While the editors did not impose a new theoretical orthodoxy or even promote a new paradigm, I believe that they, in all modesty and relatively quietly, found a promising combination of angles that can reinvigorate the study of roads and routes in various fields, while creating a new space for inter-disciplinary understanding.

The essays are good to excellent, but I would like to single out Finola O'Kane's highly perceptive analysis of 18th century road design in Ireland. O'Kane's work, based on painstaking analyses of historical documents, physical landscapes and plans and designs, succeeds in relating routes, landscapes and people in a way that confirms insights from a number of 'turns', without playing them out gratuitously against each other, and without relying much on one philosophical framework.

Also the more philosophical essays of Tim Cresswell and Peter Merriman avoid overreliance on one theoretical angle and overly bold theoretical claims, and their insights therefore link up well with the patient cultural-historical investigations of Charles Withers, Vittoria di Palma and other contributors. Empirical detail necessitates a flexible and pragmatic approach to theory, and just as Foucault struggled all his life to combine theory-building and historical work in a highly flexible and always unfinished enterprise, the group of contributors to this wonderful book seems to have collectively understood that this is the only way forward if one really tries to tell new stories about roads, routes, how they are made and how they are making. We also believe that such approach makes more sense for policy makers than either scholastic fights or false promises of immediate application and univocal analysis. [Praise for the Norwegian Research Council for funding the project *Routes, Roads and Landscapes: Aesthetic Practices en route, 1750–2015*, which led to this book].

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Alessandro BALDUCCI, Valeria FEDELI, Gabriele PASQUI, *Strategic Planning for Contemporary Urban Regions. City of Cities: A Project for Milan*, Ashgate, Farnham 2011, 160 pp.

Strategic planning has been widely used as a practice of urban planning since the 1990s. The process of urbanisation creates a significant pressure on the boundaries of many world cities and enlarges the gap between *de facto* and *de jure* cities. The continuous spatial growth of today's cities and city regions even beyond their provinces causes serious difficulties for their municipalities to control this process. Beside the attempt to redefine the agenda of priorities for public action, the book also offers an alternative input to the debate of governance. Furthermore, it provides a detailed case study of a strategic planning process for Milan's urban region. The Strategic Project started in 2005 and was initiated by the Milan Provincial Administration in cooperation with a team of researchers from Milan Polytechnic. As stated in the book, the theoretical background is linked to Lindblom's concept of strategic planning (1975), according to which the authors are calling upon us to think of a planning process as a process which is required by its constitution not to be conventional. It also refers to Webber's permissive planning (1969), as well as to some recent theoretical thinkers (Mazza, Crosa, Palermo, Healley, Kuzmann, Hillier, Albrechts, Forester).

The book consists of five chapters with an introduction, dedicated to the context and demand for strategic planning and to the process of planning *The City of Cities Strategic Project*. Within the introductory chapter the authors express scepticism to administrative reforms, which would create a metropolitan government. They are calling for cooperation, the construction of non-hierarchical forms of decision-making and the necessity of development of intermediate projects and construction of a common vision

across different administrative provinces and regions. The second half of the introductory chapter focuses on the chronological process by which the project was planned and implemented. It starts in January 2005 with a preliminary phase when the working style of the Strategic Project was established, continues with a description of the first competition of the interpretation of the concept of habitability and ends with a public presentation of the publication entitled *The City of Cities Strategic Project. For a New Culture of Governance for the Milan urban region*.

The first chapter defines relevant processes, which change the faces of today's cities: movement, fragmentation and construction of new communities. Consequently the link between planning authorities and geographical areas has been severed, the identification of a structure in the growth processes of physical cities appears chaotic and untidy, and tension between the space of flows and the space of places is increasing. The team of authors answers these challenges with the project *City of Cities*. They organise an unofficial planning process establishing new principles for governing urban development; proposing to improve *habitability* in all its dimensions as a strategic objective for the urban region.

Similarly to other cities Milan also has its path dependent discourse which has been more or less the same since 1980s with one significant exception, the issue of urban security. Additionally, Milan and its region have shown a limited capacity to produce innovations by policies – and that is exactly what *The City of Cities Strategic Project* was trying to do – to help redefine the main problems of the Milan urban region and change the structure of priorities for public action. The change of the urban agenda was based on concepts of *habitability*, *city of cities* and *city of population*. This should be achieved by three ways: the organisation of opportunities for cultural animations as sense-making practices; support for project ideas as a process of collective learning; the organisation of events as a mean of providing input to the public sphere. The second chapter finishes with a detailed explanation of the term habitability, which refers to a more general interpretation of emerging demands for development, quality of life and social equality in contemporary cities. It is an important factor for competition as well as an opportunity to increase the individual or collective well-being of inhabitants.

The third chapter begins with a brief introduction of the discussion and current discourse on territory – cities and regions – and their sovereignty in times of increasing migration and communication. The chapter continues discussing issues with metropolitan governance of contemporary regions by using concepts of *the urban region*, *a city of cities*, *a city of populations*. The concept *city of cities* emphasises that contemporary central cities breakup traditional boundaries (physical, social and institutional) and grow with cities behind those boundaries. Therefore the authors use an interpretation of the Milan region as a 7+3+1 representing on one hand the urban region and on the other hand concrete practices of coordination and governance on an inter-municipal scale. The term *city of populations* refers to the different forms of implicit or explicit, voluntary or necessary grouping to which the citizens of a community and its inhabitants in general belong, by virtue of the practices in which they are actors each day.

The fourth chapter represents a strong theoretical asset in reflection of strategic planning. It discusses the current challenges and discourse of strategic planning. This part of the book contains a good overview of planning discourse also for scholars and profes-

sionals from non-planning fields. The story continues with a detailed description of three competitions during the entire process.

The last chapter briefly summarises the main features of the planning process, its limitations and possibilities focusing on governance and the role of linkages between knowledge, practice and interaction.

Regarding Friedman's definition of planning (1987, pp. 11, 181) 'linking knowledge to action' the book represents indeed a combination of well inter-connected theories and practices. It offers an innovative approach to strategic planning with emphasis on the importance of the planning as well as its opportunities and limits. The reader will find in the book an important insight concerning the current challenges in the Milano urban region, which has troubles with rigid political discourse and governance of the spatial growth of the city. Strategic planning as described in detail through new public policy and models of public actions represents a serious attempt to the discussion of relevance and importance of strategic planning. The strong idea of putting competitions at the centre of the planning process is a fundamental and innovative approach. Instead of imagining the 'right' network of actors, the research team tried to promote 'action networks' to produce 'actors' and 'networks' through the competitions, which activate a wider range of actors.

Despite the book being well structured, the reader may sometimes get the impression that there are too many sub-sections. The text of the book varies, depending on wide range of target groups (it is addressed to students, researchers, planners and administrators).

Going back to the outcome of the strategic plan, the three concepts *habitability*, *city of cities* and *city of population* has produced three shifts in urban agenda: (a) from competition and attraction to habitability; (b) from spontaneous market forces to concrete support for social innovations (c) from the need to protect inhabitants to welfare of opportunity based on ethnic variety, cultural mix and on plurality of populations and living practices.

The approach presented in the book might be an important aspect in redefining the concept of public agenda and public discourse also in other cities where the discourse stagnates, which is a valuable reason for researchers, scholars and students also from other fields of urban studies e.g. for urban geographers interested in city development and strategic/urban planning, to consider this book as a very useful addition to their list of literature.

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Michael MURRAY, *Participatory Rural Planning. Exploring Evidence from Ireland*, Ashgate, Aldershot 2010, 164 pp.

Recent decades have witnessed an apparent turn towards more participatory approaches in the arena of rural development. There has been a recognisable shift from the imposition of top-down development strategies towards the promotion and encouragement of local and community involvement. Consequently, ideas of partnership, participation and empowerment abound within the rural development discourse. The importance of participation is frequently stressed and this is underpinned by an espousal of community involvement, empowerment and local capacity-building. Within Europe this has been evident both at EU level and through policy formulation and implementation by national governments. This seemingly more people-centred approach has been the subject of much academic scrutiny and evaluation. Michael Murray's book explores various dimensions of this trend using case study material from Ireland. The book does not advance a single overarching thesis but rather endeavours to present insights drawn over a number of years from the author's engaged activity, fieldwork and critical reflection. The examples used relate to government planning policy for rural areas in its more 'macro' forms, specific strategies with respect to rural housing and village plans, and a more detailed account of the operation of a citizens' planning group. In this way, very different (though connected) elements are brought together. This breadth is furthered through the use of material derived from two political jurisdictions Northern Ireland (part of the United Kingdom) and the Irish Republic.

The book is organised in six chapters. The first provides a useful theoretical overview of shifts from a more top-down approach to rural planning and development to a more bottom-up one. It outlines an analytical framework for examining participatory approaches. Murray's objectives are to explore the benefits of collective capital (linked to ownership, identity and trust), the promotion of meaningful dialogue (as distinct from adversarial posturing), the potential to bridge relationships rather than simply co-opting or incorporating local views, and the value of recognising and developing new knowledges within these expanded spaces of governance. Chapter 2 presents a review of the relevant spatial planning policy context on both sides of the Irish border, with particular reference to the extent and means of citizen engagement in processes of policy formulation. These chapters raise important questions about the disjuncture between the desires of local residents and the needs of statutory organisations and point to tensions between genuine dialogue and tokenism and the distinction between consultation and participation.

Chapters 3, 4 and 5 are designed to investigate participatory planning in action through an exploration of housing policy in Northern Ireland, village planning on both sides of the border and, finally, a focus on European citizens' panels. Chapter 3 reviews the nature of official policy consultation in Northern Ireland in relation to rural housing and goes on to examine a specific 'unofficial' pilot project. Chapter 4 highlights the difficulties and time needed for facilitating meaningful participation focussing on the formulation of village plans and an examination of specific village planning projects. Chapter 5 discusses the EU active citizenship agenda with a discussion of regional citizens' panels. The chapter explores the issues in more detail through a focus panel straddling the Irish border region. The final chapter presents an appraisal of the limits and potential of more participatory approaches.

Although this is a relatively small volume that ranges over rather disparate examples, it manages to weave a narrative that draws together issues of governance, spatial planning, rural development and community involvement. In some ways Murray's book works better as an overview of trajectories in rural development rather than an in-depth assessment of participatory methods. While there is clearly a case to be made for more genuinely participatory approaches, Murray acknowledges the numerous difficulties associated with it and, importantly, the resistances to it exhibited by statutory agencies. He points to some of the merits and potential of widespread participation but also reminds us of the problems of operationalising this, the difficulties of fostering genuine engagement and the political context which might be seen to be rhetorically supportive but structurally resistant. As Murray himself states early on in this book the problem remains of 'the extent to which participatory arenas of engagement can champion negotiating practices that move citizens closer and into the loci of power, or merely place them on the fringes of polite advocacy' (p. 14). Murray argues that government at a variety of spatial scales may promote participation but primarily for functional means. Additionally, in so far as some useful progress is made in relation to bridge building and so on, this may suffer from the time-limited dimensions of funding conditions and related constraints. While Murray concludes that there is an enthusiasm for these approaches, his work paradoxically demonstrates that there remain problems with getting people more actively and meaningfully involved.

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Michael D. GORDIN, Helen TILLEY, Gyan PRAKASH (eds.), *Utopia/Dystopia. Conditions of Historical Possibility*, Princeton University Press, Princeton, Oxford 2010, 293 pp.

The book *Utopia/Dystopia. Condition of Historical Possibility* is a collection of essays which shows the concepts of dystopia and utopia as a historically grounded analytic categories. The authors also show how individuals and groups in the world could interpret the present with an eye to the future. As the authors noticed, utopias and dystopias are histories of the present. Moreover, these concepts have received much historical attention, especially the utopian conception.

In the comprehensive introduction the authors explain the differences between utopia and dystopia using different examples from the history. On the one hand utopia takes everything into the future and serves to indict the present but on the other hand dystopia places all straight in the dark and emphasises the reality conjuring up the frightening future if people do not recognize its symptoms which are here and now.

The publication is divided into two main parts. The first one, which is called *Anima*, consists of five articles. The authors present considerations connected with utopia as a method, and deal with Southern African frontier, India and Rhodesia during the decolonisation. In *Anima* the authors show different inflections which are related to human existence. The authors also suggest that utopia and dystopia tend to test the boundaries of the reality.

In the first chapter called *Utopia as a Method, or Uses of the Future* the author Frederic Jameson shows that utopian projects are useful because they let interrogate own way of thinking and help in the understanding of frontiers and webs of imagination. The second chapter, *Literacy and Futurity: Millennial Dreaming on the Nineteenth-Century Southern African Frontier*, written by Jennifer Wenzel, shows millennial movements in midnineteenth-century South Africa. That time was a decisive moment of the colonialism when European faith in the civilising mission reached the top. The third chapter called *Bourgeois Categories Made Global: The Utopian and Actual Lives of Historical Documents in India*, written by Dipesh Chakrabarty, is looking for the answer to where to look for the past records resurrected especially in the decades preceding a nation's political independence. The next chapter called *The Utopia of Working Phones: Rhodesian Independence and the Place of Race in Decolonization* is written by Luise White. The author tries to show how colonialism which was a minority rule became a rule of majority and revolves around limits of the racial politics. The last chapter of this part, called *Hydrocarbon Utopia*, was written by Timothy Mitchell. The author focuses on energy politics and tries to predict the future where energy and politics unite to be more democratic.

In the second part of the book, which is called *Artifice*, the authors explore subjective and modern utopian and dystopian ways of thinking and practice. All chapters emphasise the manipulation and abstraction.

In the chapter called *Techno-Utopian Dreams, Techno-Political Realities: The Education of Desire for the Peaceful Atom*, the author John Krige tries to analyse a twentieth-century phenomenon – nuclear power. The next chapter, *On Cosmopolitanism, the Avant-Garde, and a Lost Innocence of Central Europe*, written by Marci Shore, shows dystopian clash between fascism and communism. What is interesting, the author tries to show some optimistic aspects of the Bolshevik Revolution. The next chapter, *The Breath of the Possible: Everyday Utopianisma and the Street in Modernist Urbanism*, written by David Pinder, tries to show the nature of the present. The author presents his reflections connected with utopian possibilities starting at the streets. One of the most important points of these architectonic movements was initiated by Le Corbusier. The next chapter called *Stalinist Confessions in an Age of Terror: Messianic Times at the Leningrad Communist Universities* was written by Igal Halfin, who tries to show the mechanism of NKVD's investigations and procedures. The last chapter of the book called *The Heterotopias of Dalit Politics: Becoming-Subject and the Consumption Utopia* is written by Aditya Nigamis, connected with politics in India. The article is a collection of three scenes featuring a leader of the outcasts, dystopian space and Dalit Capitalism Party. The author explains the notions of time implied in utopia.

The strong point of the book *Utopia/Dystopia. Condition of Historical Possibility* is interesting notes which are included at the end of each chapter. They let the readers have a better understanding of the issues addressed. In sum, this book not only shows different concepts of utopia and dystopia but also presents an illuminating overview of some historical facts.

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