

# Examining the Transition Toward Sustainability in Higher Education in Central Europe

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## 1. Introduction

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), Education for Sustainable Development (ESD) is education that “allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future” (UNESCO, 2014). It thus requires the inclusion of key sustainable development issues in teaching and learning, such as “climate change, disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption. It also requires participatory teaching and learning methods that motivate and empower learners to change their behaviour and take action for sustainable development. Education for Sustainable Development consequently promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way” (UNESCO, 2014).

As ESD requires “far-reaching changes” in the way education is delivered, UNESCO sponsored the UN Decade for Education for Sustainable Development (DESD) from 2005–2014 to create greater momentum worldwide to bring the collective weight of educational resources to bear on the delivery of education and learning that lead to a more sustainable life in future. As the DESD nears its end and evaluation of its achievements gets underway, we would like to very preliminarily look at what the ESD state of affairs is in our own part of the world in the field of higher education.

Our collaboration at the Charles University Environment Center with international partners to the west of the former dividing line between the market-led and centrally driven command economies has demonstrated that due to a more pragmatic approach in western countries many western states have gone to some lengths to “walk the talk” when introducing the ESD concept into higher education (HE). In some cases, entire universities or faculties have dedicated themselves to teaching along ESD principles and “greening” their campuses, e.g. the Leuphana University of Lüneburg

in Lower Saxony, Germany, the University of Graz in Austria, or Ecole polytechnique fédérale de Lausanne in Switzerland.

A specific historical context has resulted in very different conditions for the implementation of ESD at the HE level in West versus East European countries. HE institutions in the Eastern countries of Central Europe over the past quarter century have faced multiple challenges associated with the transition to a post-communist society: liberalization, the transformation to a market economy, the growing numbers of students, and deep systemic changes related to the Bologna Process (see below), and inclusion within the European Higher Education Area. This article demonstrates the main principles of the SD-oriented HE transition and the trends in this field over the past 23 years as part of a comparative analysis of post-socialist central european countries; it focuses on sustainability changes in HE and identifies similar trends in relation to the recent shared history of the region. It analyses obstacles to SD, especially as a consequence of the incremental evolution of the role of authority, on-going communication patterns (related to interdisciplinary or multi-stakeholder perspectives) and the perception of quality in HE which is assessed by standardized criteria and governed by the state. These barriers are discussed in relation to the SD transition with regard to (the lack of) attention paid to participatory and democratic decision-making processes outside academia, which results in an inadequate framework for involving science in societal processes. We also look at what specifically has or is taking place in promoting SD in higher education in the post-socialist states of Central Europe at the policy and individual institutional levels.

### **1.1. Research methods**

This article is based in part on comprehensive research undertaken by Czech researchers (cf. Kohoutek, 2009). It also capitalizes on collaborative research initiated by the Leuphana University Lüneburg in conjunction with partners from other Central and Eastern European states (CEE) (cf. Adomssent & Otte, 2013; Dlouhá, 2013). In addition, a substantial amount of desktop research was undertaken in relation to the current state of affairs in the individual former socialist CEE states via online scientific research engines such as Science Direct and Google Scholar. Apart from HE in the Czech Republic, this type of research was necessarily limited to articles published in English. As ESD in higher education in eastern central european countries is not a common field of interest the information available to researchers is relatively scant, particularly in the case of Hungary. This part of the article should therefore be viewed as a brief introduction to the subject matter and a starting point for further research and analysis. We do not claim to provide a comprehensive review of ESD in higher education in individual post-socialist central european countries.

## **1.2. Defining the region and policy framework**

According to UNESCO, the category Central Europe (CE) includes some of the Central Group of countries: Poland, Czech Republic, Hungary, Slovenia, Slovakia (UNESCO, 2011), plus Germany and Austria, which have a shared history with some of them (UNESCO, 2011). Because the long established member states of the EU from the Western half of the European continent have already made relatively transparent, and easily identifiable and quantifiable efforts to introduce ESD into their HE systems (there is at least a rich store of literature available on the subject), we have chosen in this article to focus exclusively on those central european countries undergoing the transition from former Soviet satellite status to integrated EU market economies where an accompanying transition to ESD in higher education is less well documented. Whereas it is easy to pinpoint exemplars of ESD in higher education in the western central european states (see above), it is more difficult to do so in the eastern central european states. While there are many environmentally oriented programmes available in eastern central european states, the actual concept of sustainable development there is still not fully understood (cf. Dlouhá & Moldan, 2011).

Education for Sustainable Development (ESD) policies defined within the UN Decade of Education for Sustainable Development (2005–2014) were introduced at the European level through the United Nations Economic Commission for Europe (UNECE) Strategy for ESD – this is the policy document that should initiate policy changes in the field of education in this region. The Strategy provides concrete and measurable goals for adoption in national policies, and it concerns all levels of education, including higher education institutions (HEIs) that should provide leadership throughout the whole education system and which are especially important for teacher education (UNECE, 2011).

On the other hand, HE is too specific to be greatly influenced by policies that originate outside academia, and HE institutions themselves have a responsibility to make a greater impact on academic practice within their associations, e.g. University Leaders for a Sustainable Future (ULSF). To understand the mechanism of (a potential) sustainability-oriented transition, the historical tradition and culture of HEIs have to be reviewed.

## **1.3. CE – transformation of higher education systems**

With regard to general HE education policy in the countries of Central Europe during the period of transition (1990 to now), some general patterns are found in the relevant literature. In general, during the process of transition central european countries built upon their cultural specificities, which had to be reconsidered (and cleared of ideological ballast). At the same time, there has been an increase in the importance of international and global processes

in which national higher education systems, institutions, and academia have played (or would like to play) a role in sharing quality criteria, especially in research and the growing demand for mobility. Kohoutek (2009, p. 13–16) distinguishes three periods in which reformist changes within national higher education systems have been pursued since 1989.

In the first period of policy changes (approx. 1990–1993), the liberalization processes of governance structures were most important, decentralizing management and administration, including recognition of students' rights and the building of democratic structures that permitted more autonomous operations (Kohoutek, 2009, p. 14). Simultaneously, student enrollments in tertiary studies increased, and interest in the humanities expanded, especially economics and law, which was accompanied by a significant decline in interest in the technical sciences. The mission of academic institutions also changed: they were initially oriented toward teaching and now they were supposed to do research. These structural changes were similar across the region, but differences in the institutional framework emerged as a result of diverse transformation processes (Balázs, Faulkner, & Schimank, 1995, p. 616).

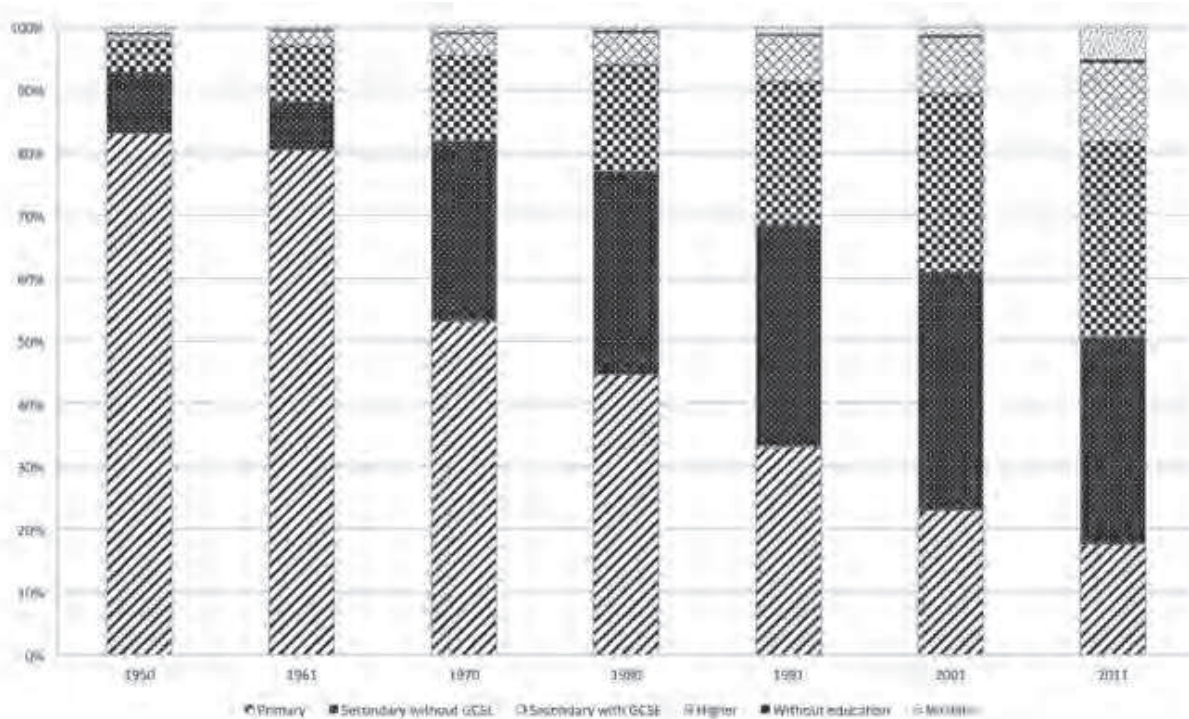
During the second phase (1994–1999), the higher education policies of Central and Eastern European countries faced challenges of systemic transition similar to those of Western Europe: the struggle with growing numbers of students, a lack of financial resources necessary to increase system capacity, the introduction of private higher education providers, and a consequent quality-issue turn, i.e. a demand for accountability and well-defined academic performance (outputs and efficiency). Higher education started to be seen as an important stakeholder in engagement with the “knowledge society” and as a driving force of economic development, as well as for political and cultural renewal – the growing number of students also represented a deep demographic change (for an example from the Czech Republic, see Fig. 1). The Bologna Process<sup>1</sup> was implemented and the central European countries under transition found that their higher education policy priorities began rapidly converging with those of Western Europe. In this period and later (the third and final transition period lasts from roughly 1999 until the pre-

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<sup>1</sup> The Bologna Process is, according to the European Commission ([http://ec.europa.eu/education/policy/higher-education/bologna-process\\_en.htm](http://ec.europa.eu/education/policy/higher-education/bologna-process_en.htm)) a “collective effort by public authorities, universities, teachers, and students, together with stakeholder associations, employers, quality assurance agencies, international organizations, and institutions, including the European Commission”, to enhance education and training systems in the European Higher Education Area through “the introduction of the three-cycle system (bachelor/master/doctorate), strengthening quality assurance and facilitating easier recognition of qualifications and periods of study between institutions and member states”. For more information see the European Higher Education Area website: <http://www.ehea.info/>.

sent) higher education policies in Central Europe changed most commonly in terms of degree structure and quality assurance (Kohoutek, 2009, p. 15–16).

**Fig. 1. Population according to level of education attained, Czech Republic**



Source: Czech Statistical Office (2014).

#### 1.4. Sustainability as a challenge for HEI transition

Because of their intellectual capacity and hence their role in the “knowledge society”, universities are considered to be key actors in achieving a sustainable future. But if they want to respond to this challenge they still need radical innovation that involves thinking, internal organization and operations, as well as interaction with other social players beyond academia. To develop a holistic and consistent sustainability-oriented higher education system, the “greening” of HE should be undertaken over a relatively wide area of university life. ULSF in its Sustainability Indicators Project refers to the seven most important areas: professional education requirements in all academic disciplines, liberal arts, faculty and student research; sustainability knowledge as a critical concern in research and teaching; the role of the institution within its social and ecological systems; university management and specific activities such as scholarships, staff training etc.; institutional support and campus student life services; outreach and forming partnerships both locally and globally to enhance sustainability, and finally, the inclusion of sustainability visions in mission statements – see, Clugston and Calder (1999, p. 4–5).

Besides these visible indicators of change, other deeper and more qualitative transformations can play a role within the processes of education and research: Daniella Tilbury stresses in particular the need for a different view of pedagogy that includes active and participatory learning, and management that is spread across educational systems themselves and develops synergies through ESD across communities and universities (Tilbury, 2011, p. 22–27). The sustainability-oriented leadership that should be developed in higher education requires systemic thinking and transdisciplinary skills on top of existing disciplinary knowledge, and an understanding of the processes of human change (Jansen, 2003). In teacher education in particular, research into commonly adopted ESD pedagogies is a high priority – this aim is also included in the areas for action in the UNECE Strategy for ESD (2005, § 58–60). In this respect, higher education should play a role and “contribute significantly to ESD in the development of appropriate knowledge and competences” (UNECE, 2005, § 20).

Sustainability oriented changes in universities may be developed through top-down as well as bottom-up approaches. The top-down approach provides direction in the management and governance of academic institutions and their systems’ borders; the bottom-up approach is widely applicable thanks to the great autonomy of universities at all levels (including the lower levels) and their specific educational and research culture. The top-down and bottom-up approaches are complimentary, although they need communication between the relevant parties (Jansen, 2003).

## **2. The state of ESD in the individual former socialist states of Central Europe**

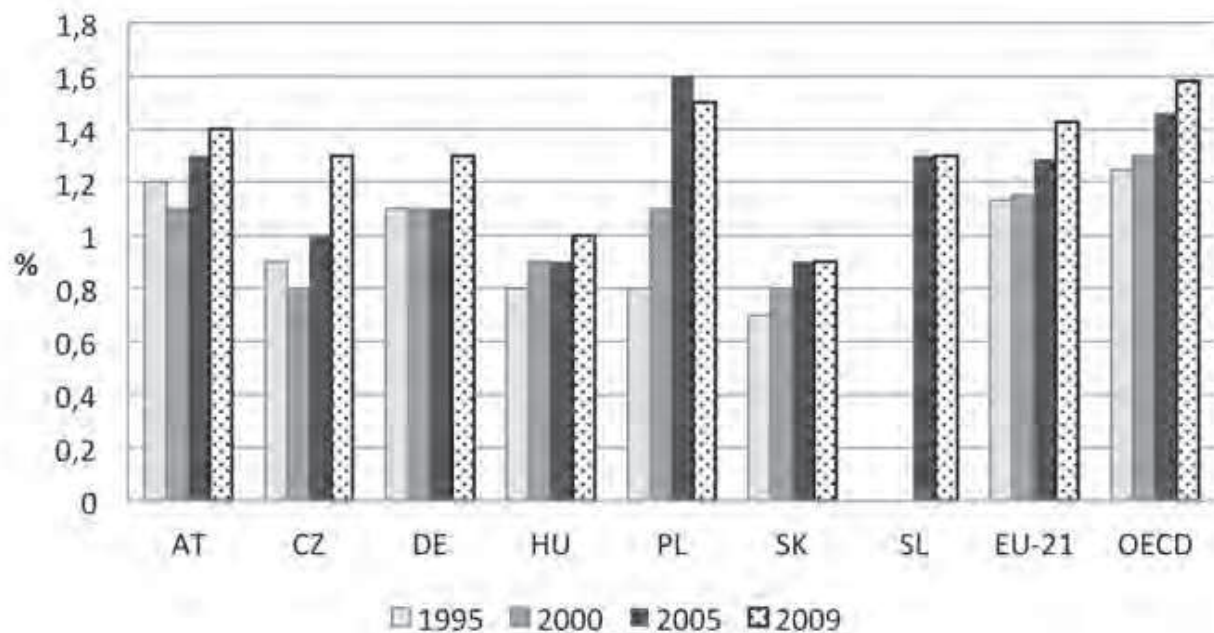
By most measures, the newly democratic states of Central Europe lag behind the development levels of their long-established EU neighbors (Germany and Austria). Despite the Bologna Process, this is still evident in the higher education sector. According to Organization for Economic Co-operation and Development (OECD) education statistics, the Czech Republic, Slovakia, Poland, Hungary and Slovenia all significantly underspend on tertiary education both as a percentage of Gross Domestic Product (Fig. 2) and annual expenditure per student (Fig. 3) in comparison to the EU-21<sup>2</sup> average and OECD average; they also underspend on research and development at tertiary institutions and, less significantly, they generally produce fewer higher edu-

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<sup>2</sup> According to the OECD, EU-21 states are “all EU countries prior to the accession of the 10 candidate countries on 1 May 2004, plus the four eastern European member countries of the OECD, namely the Czech Republic, Hungary, Poland, and the Slovak Republic” (<http://stats.oecd.org/glossary/detail.asp?ID=7020>).

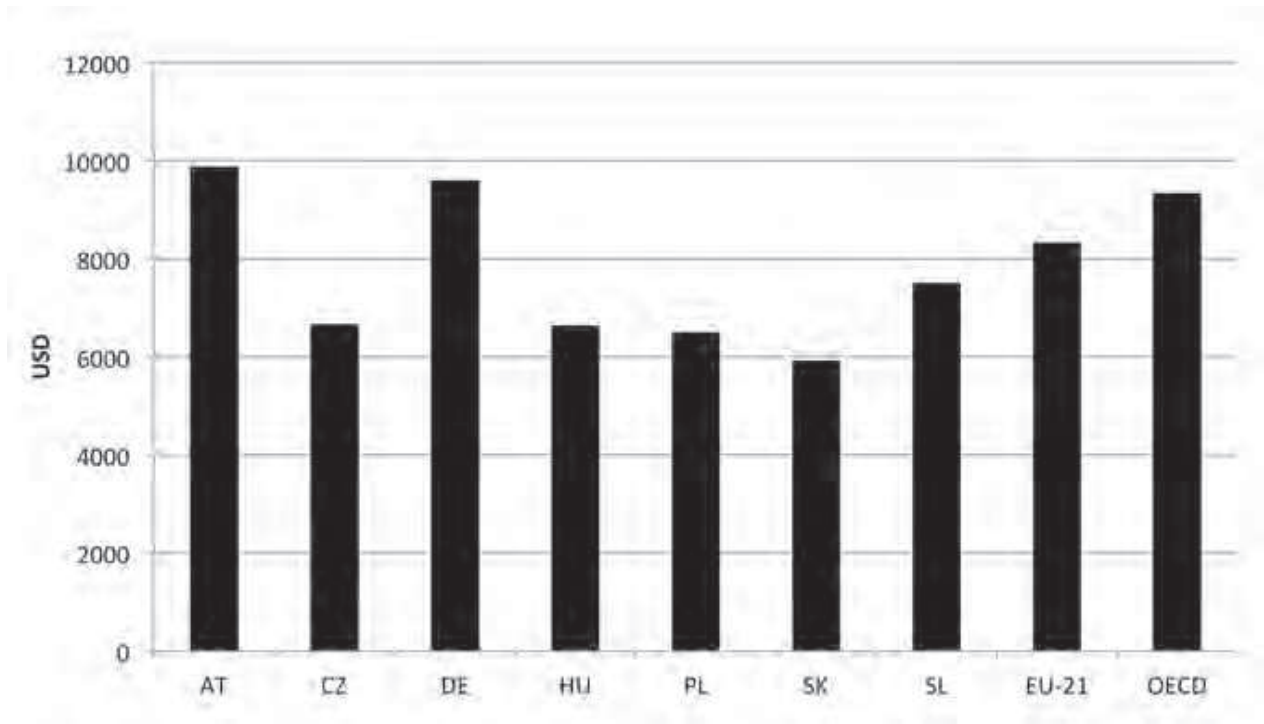
cation graduates (Fig. 4). Poland is an outlier in this last respect, as it has placed especial emphasis on access to tertiary education and hence turns out almost as many graduates in the 24-35-year age bracket as the OECD average. Interestingly, this increased access to tertiary education in Poland has also helped the country buck the trend in fellow post-socialist central european countries toward greater inequality in learning opportunities, despite or because of the introduction of fee-paying mechanisms. The country has also benefited from “exceptionally high returns from higher education [...] and relatively small unemployment rates among its higher education graduates” (Kwiek 2008, p. 92).

**Fig. 2. Expenditure on tertiary education institutions as a percentage of GDP as at 2009**



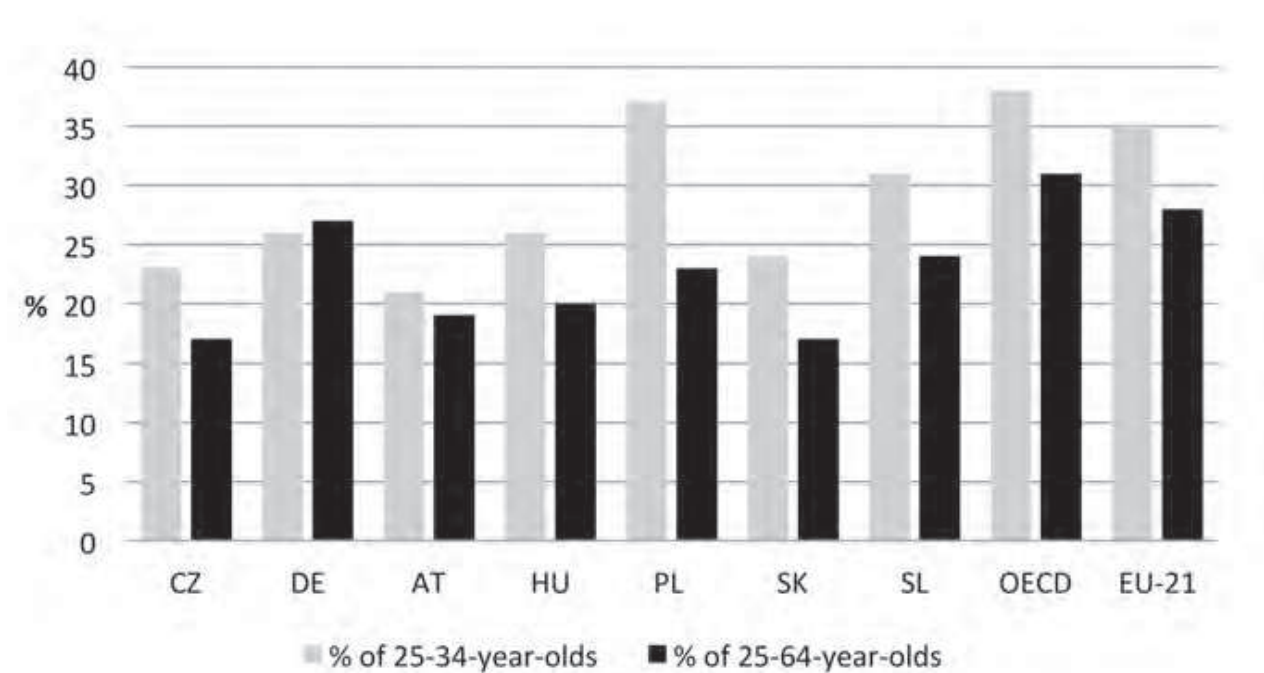
Source: OECD (2012).

**Fig. 3. Annual expenditure per student for all tertiary education, excluding research and development activities using equivalent US dollars converted using Purchasing Power Parity based on Full-Time Equivalent student places as at 2009**



Source: OECD (2012).

**Fig. 4. The percentage of the population that has attained tertiary education - total tertiary by age group as at 2009**



Source: OECD (2012).



Perhaps if there were a Higher Education for Sustainable Development equivalent to the Grossman and Krueger curve (1995) – a hypothesized relationship between various environmental indicators and per capita income, which posits that various indicators of environmental degradation show a tendency to deteriorate as economic growth takes place until average income eventually reaches a particular point over the course of a nation’s development<sup>3</sup> – we might find a corresponding link between expenditure/income and increased commitment to SD and implementation of ESD. Naturally, there are systemic and structural reasons for different spending priorities between the west and the east, but at least from a ball park perspective there is a *prima facie* case for arguing that lesser relative spending on higher education and research and fewer graduates of HEIs translates to relative indifference to embedding the sustainable development concept in higher education.

Prominent success stories in the introduction of ESD into educational operational policy and higher education curricula and management/administration are hard to come by in post-socialist central European states. And this is partly exemplified by the glaring absence of one particular type of ESD body requiring university participation, and which has mushroomed in most other parts of the world – the United Nations-backed Regional Centre of Expertise (RCE) on ESD.<sup>4</sup> With the exception of two RCEs in the Russian Federation and the surprising case of Albania, there are no RCEs anywhere in post-socialist Europe (there are currently 117 RCEs worldwide). An attempt has been made in the Czech Republic to create an RCE in North-West Bohemia which may still prove successful, but which in the meantime faces the usual barriers typical for former socialist European states: lack of funding, poor awareness of the SD concept among potential partners, institutional inflexibility and political/administrative indifference.

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<sup>3</sup> Readers may be more familiar with the Environmental Kuznets Curve, but we have referred here to the Grossman and Krueger curve because it was Gene Grossman and Alan Krueger who were the first to make the connection between economic growth, environmental clean-up, and the original Kuznets Curve which hypothesizes that as an economy develops, market forces initially increase and then decrease economic inequality.

<sup>4</sup> RCEs were developed in response to the UN Decade of Education for Sustainable Development call for regional networks comprised of a cross-section of various academic and non-academic stakeholders to address local sustainable development challenges, usually led by a university. Such networks are meant to promote ESD via formal, non-formal and informal modes of education, and by establishing appropriate platforms to share information and experience and promote dialogue among regional stakeholders (United Nations University Institute of Advanced Studies, n.d.).

## 2.1. The Czech Republic

The road to greater acceptance and integration of ESD within the Czech higher education sector has been a rocky and circuitous one, and often strewn with the forgotten detritus of past high level ESD initiatives. Despite a range of well-intentioned efforts in the Czech Republic, the history of ESD in this country shows that what little success has been achieved is mostly up to a handful of highly motivated and patient individuals prepared to face the sometime Sisyphean task of breaking down the various barriers. These include methodological barriers, financial, and institutional, among others (Dlouhá, 2013). Probably in parallel with other post-socialist central European states, the fate of ESD very often reflects the prevailing political winds that blow through the policy-making and policy implementation firmament – winds that have become decidedly chillier since the Game of Thrones-like winter of deep economic recession began back in 2008. For a country with a proud pre- and early post-1989 strain of environmental activism and the early promise of a more “moral” and “ethical” approach to political problem-solving under the very first post-revolutionary generation of former dissidents-turned-politicians, the imposition of economic reality and the arrival of harder nosed politicians with a distinct and vocal disdain for the new ideological “threats” of environmentalism<sup>5</sup> (former President Vaclav Klaus) and “Dalailamaism”<sup>6</sup> (former Prime Minister Petr Nečas) means that any investment in ESD is highly risky.

Brave starts have been made, however, mostly thanks to outside pressure from the United Nations and the European Union. An ESD Strategy 2008–2015, which was heavily influenced by the UNECE Strategy for ESD, was approved by the Czech Government and is being implemented through action plans. Its goals for the tertiary education sector include promoting “the accreditation of interdisciplinary study programmes and the mobility of students between programmes and faculties, and the creation of cooperation networks in education and research between different HE institutions that concentrate on different aspects of ESD” (Dlouhá, 2013, p. 64). Implementation depends to a large extent on the prevailing political situation, which for the meantime remains comparatively turbulent.

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<sup>5</sup> In 2007, Klaus called environmentalism the “new communism” when he said: “This ideology [environmentalism] invokes the earth and nature and under slogans calling for their protection – just like the old Marxists – tries to replace the free spontaneous evolution of mankind with a kind of central (now global) planning for the whole world” Dočekal (2007).

<sup>6</sup> Nečas infamously claimed during a trade fair in 2012 that support for the Dalai Lama (or the Russian punk group Pussy Riot) had a negative impact on Czech exports to China (and Russia) despite the very obvious fact that Czech exports to both countries have been steadily rising in recent years.

In terms of teaching training, ESD does not greatly figure and even environmental education is only offered on an optional basis at some pedagogical faculties. On the other hand, some NGO-based SD networks have an influence at these faculties by providing specific (outdoor) programs for teachers, and the Local Agenda 21 network of towns and municipalities (the National Network of Healthy Towns) has a strong learning element in relation to applied research in cooperation with universities (Government of the Czech Republic, 2010).

At the individual institution level, there has been a long history of development in environmentally-related courses in curricula (cf. Dlouhá & Dlouhý, 2014), but there has been little in terms of interdisciplinary approaches to sustainability; there is still a poor understanding even among academics about the difference between ESD and environmental education, there is institutional confusion about transdisciplinary education and ESD competences, university structures remain highly inflexible and resistant to change, financial support is lacking, and ESD transition does not engage with other Czech social actors and potential partners or funding mechanisms at the international level (Dlouhá & Moldan, 2011).

A couple bottom-up student initiatives have been attempted to create green campuses, but with negligible effect. In the first case, a group of students from different Czech universities operating under the aegis of the Academic Center of Student Activities (ACSA) initiated a Green University project (known by its Czech acronym ZUni), but it appears to have come to a complete halt in 2008 due to a lack of funding (*Akademické centrum studentských aktivit*, 2014). A second attempt at establishing a green campus has had more success at Masaryk University, although its remit is limited to recycling and waste minimization, reuse of copier toners, duplex copying, and consumption of tap water only (*Zelený kampus*, 2013). Otherwise, there is a chapter of the international student-driven organization for sustainable economics and management, Oikos, at the University of Economics in Prague (UEP), but it is intended as a forum for discussion rather than for undertaking specific activities on the ground.

Dedicated efforts have been made at the Czech Republic's oldest and largest higher education institution, Charles University in Prague, to establish an ESD beachhead in the wider tertiary education sector, mainly thanks to the research focused Charles University Environment Center (CUEC). It is or has been involved in European-wide ESD projects, such as the Virtual Campus for a Sustainable Europe<sup>7</sup> that acts as a promotional platform for SD-centered e-learning courses throughout the continent, and the Lifelong

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<sup>7</sup> [www.vcse.eu](http://www.vcse.eu)

Learning Network for Sustainable Development,<sup>8</sup> designed to develop greater capability and capacity for ESD among EU states (for which the CUEC was the coordinator). At the time of writing, the CUEC was also the lead partner in a national interdisciplinary network of Czech universities for policy development for SD.<sup>9</sup> This latter network is primarily aimed at strengthening awareness and adoption of ESD among non-Prague universities where recognition of the SD concept remains weak.

The CUEC is also active in the academic publishing world, and in addition to contributing to international publications, it also publishes its own online journal called *Envigogika*<sup>10</sup> in both Czech and English, which focuses on environmental education and ESD.

## 2.2. Slovakia

ESD exists in Slovakia, but as is characteristic of other Eastern European and former socialist states, its activities in this area tend to be at the national level and adhere to the usual top-down approach also characteristic of these countries through the publication of grand declarations and strategies with little if any buy-in at lower levels. These types of documents include the standard National Strategy for Sustainable Development (2001), and Action Plan for SD in the Slovak Republic for 2005–2010, and various operational programmes prepared in relation to the National Strategic Reference Framework (2007–2013).

A National Action Plan (NAP) for ESD was introduced in 2006 by the Ministry of Education. Higher education figures relatively largely within the Action Plan, which calls for the implementation of ESD within all study programmes on the basis of innovative educational approaches and research oriented toward ESD in concert with HEIs, academies of science and sectoral institutes (Dlouhá, 2013). HEIs are meant to become “sustainable universities” in accordance with the 2001 Lüneburg Declaration on HESD and work together with other SD stakeholders at the regional level. However, a lack of political and financial support on the part of the government has meant little progress has been made on NAP objectives since 2007 (Dlouhá, 2013). This absence of backing for ESD from government is symptomatic of the newly democratic states of Central Europe where the systemic instability of patchwork government coalitions and a politicized civil service leads to a regular changing of the guard not only at the head of the Ministry of Education, but also among the echelons of upper management. This is particularly characteristic of the two states born of the former Czechoslo-

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<sup>8</sup> [www.3-lensus.eu](http://www.3-lensus.eu)

<sup>9</sup> [www.mosur.czp.cuni.cz](http://www.mosur.czp.cuni.cz)

<sup>10</sup> [www.envigogika.cuni.cz](http://www.envigogika.cuni.cz)

vakia. Hence, whenever policy makers do manage to place ESD near the top of the education agenda, it soon falls victim to the political jockeying that results from the merry-go-round of cabinet reshuffles, or the institutional knowledge required to maintain momentum for ESD is lost through the cleansing of staff that accompanies the installment of a new minister. Some impetus for ESD has nevertheless been maintained in Slovakia thanks to annual evaluations of the fulfillment of NAP objectives for ESD in the higher education sector made on behalf of the United Nations Economic Council for Europe's Steering Committee on Education for Sustainable Development (UNECE, 2009).

At an individual university level, SD topics have been incorporated into relevant subjects and more than half of Slovak universities today have specific subjects devoted to SD, and there been some initiatives to adopt a holistic approach to the inclusion of social and economic dimensions in higher education (Dlouhá 2013). As elsewhere among former socialist central european states, however, environmental and ecological themes tend to predominate and there is little in the way of an interdisciplinary approach. No Slovak university offers a green campus.

### **2.3. Slovenia**

As one of the more developed of all the former socialist states in both Central and Eastern Europe, Slovenia is not surprisingly also further developed and progressive in the implementation of ESD. Figure 2 above, for example, clearly shows that Slovenia devotes more funding per student for all tertiary education, excluding research and development, than the other CE post-socialist states, even approaching the OECD's EU-21 average, and this extra financial outlay is reflected in a more perceptible array of ESD activities at the HEI level. Moreover, with a small population of only slightly over two million it accommodates a mere four public universities (compare this, for example, with Poland with over 130 public universities), so it is far easier to discern ESD in the tertiary education sector.

A number of official documents and administrative bodies provide support for ESD, including a working group for ESD established by the Ministry of Education and Sport in 2005 with a mandate to 2010 (Dlouhá, 2013); it is not clear whether this mandate has been renewed or not. There is also a Council for Sustainable Development comprised of high-level government civil servants, NGOs and other institutions (Government of Slovenia, 2010). This council is in charge of overseeing the Strategy of Development of Slovenia adopted by the Slovenian parliament, and in addition has a standing working group dedicated to issues of ESD (UNECE, 2009). Furthermore, the Minister of Education and Sport also adopted Guidelines for Education for Sustainable Development from Preschool to University Education in July

2007 predicated on the Decade on ESD (2005–2014) and the UNECE Strategy for ESD (Dlouhá, 2013).

Overall, however, and as with the other states examined in this paper, it appears that the inclusion of all three components of the sustainable development concept is not clearly understood. References to sustainable development in various Slovene documents is mostly linked to environmental education, while such documents have been heavily criticized for their lack of discussion of the fundamental barriers to sustainability, such as climate change (Gobbo, 2011). A White Paper on Education that was widely circulated for consultation in 2011 with guiding principles, inclusive values, knowledge, sustainable development concepts, and the strengthening of civic knowledge and values that facilitate political reflection (Government of Slovenia, 2010) unfortunately fell victim to a fall of the government in September 2011 and has been left unresolved since the formation of a new government in February 2012 (Education for Sustainability, 2012).

At the individual institutional level the outlook is much brighter, as all four public universities – Ljubljana, Maribor, Primorska, and Nova Gorica – have integrated sustainability principles into their curricula (albeit usually within the environmental dimension) (Lukman & Glavič, 2007). For example, the University of Primorska offers a course in Sustainable Development, while the University of Maribor has run a sustainable development post-graduate module since 2003. The University of Ljubljana’s Faculty of Education established an educational program for educators in which sustainable development topics were included, although the two-year program was discontinued in 2011 (Gobbo, 2011). More positively, the University of Maribor embarked upon a project in 2006 to turn itself into a sustainable university when it established a Sustainability Council with representatives from 9 of its 13 departments. Experience eventually showed, however, that this top-down approach to introducing the sustainability concept more widely within the university faced certain institutional barriers, and so a shift in focus was made to include bottom-up activities, such as achieving the enthusiastic buy-in of the university’s student council (Lukman & Glavič, 2007).

More recently, four Slovene higher education institutions or departments thereof signed the Higher Education Sustainability Initiative for Rio+20 in 2012 (United Nations Department of Economic and Social Affairs [UNDEASA], 2014). Each institution described their ESD activities as part of their commitment to the initiative. The Faculty of Economics at the University of Ljubljana (FELU) said it is committed to PRME (Principles for Responsible Management Education) and the Six Principles promoted by the United Nations initiative for responsible management education. At the operational level, FELU has incorporated sustainability into its study programs, established an “Eco Team” with 92 members, initiated a Re.think

project to increase awareness among students and employees about rational resource use, and constructed a solar-power electricity plant to provide 10 per cent of FELU's electricity needs.

The IEDC-Bled School of Management stated that management of social, environmental, and ethical risks and opportunities has been a mandatory part of its Executive, MBA programs for several years already. In 2009, the Aspen Institute's 2009–2010 edition of *Beyond Grey Pinstripes* (Aspen Institute, n.d.) ranked it among the 100 top business schools in the world for demonstrating leadership in integrating social, environmental and ethical issues into its programmes. This is allegedly the only ranking that assesses how well educational institutions prepare their students for the “environmental, social and ethical complexities of modern-day business” (Aspen Institute, 2009). IEDC claimed it is the only school from Central and Eastern Europe to have obtained such recognition.

The International School for Social and Business Studies in Celje said it would implement a summer school project from 2012 onwards called “Innovation in Business – Environmental Challenges” to “enhance participant's creativity and innovation and by raising their awareness of environmental issues and demonstrating actual environmental solutions guiding their thought and action in the field of business challenges in environmental science” (UNDEASA, 2014). The main part of the summer school would consist of real world case studies that identify business opportunities in the field of environmental protection and sustainable development.

Finally, the Univerza Na Primorskem/Universita Del Litorale stated its ambition of becoming the leading sustainable university in Slovenia with its achievements enumerated in a University Sustainability Report published in 2014 (UNDEASA, 2014). It would do this by promoting study programs oriented toward sustainable development, establishing summer schools and other opportunities to develop awareness of global ecological, economic and social issues, and incorporate sustainability into university culture and practices through wide engagement with staff and students, as well as employers and partners in the community and in government.

#### **2.4. Poland**

Poland is no different from other post-socialist central european states in equating SD with environmental protection only. And even this most readily recognized of the three SD pillars faces huge challenges in Poland. The country still suffers from acute air pollution as a result of the sulphur dioxide emissions from the numerous coal-fired power plants where consumption of coal is the second largest in Europe behind Germany (Greenpeace, 2008). Other environmental problems include water pollution from industrial and municipal sources ensuing from poor regulatory oversight, and the disposal

of hazardous waste. Recycling and separation of rubbish is not widely practiced in Poland (Hasler, 2009).

Yet, counter-intuitively, Poland is one of the few countries to have actually incorporated the SD principle into its legal system through the adoption of a new constitution in 1997. The Polish Constitution states: “The Republic of Poland guards independence and inviolability of its territory, ensures freedoms, human and citizen rights and the safety of citizens, guards the national heritage and ensures the environmental protection driven by the sustainable development principle” (Government of Poland, 1997, chapter I, article 5, p. 2). The authors of the constitution seemingly conflate national security and human rights with sustainable development, which appears thoroughly reasonable, although as one commentator has stated, the intention was probably simply to encourage the “responsible” development of Poland at a time when the country was still reeling from the neoliberal shock therapy of the immediate post-communist years (Piasecki & Kostrzewa, 2009). But “in practice it was not further developed as a complex integrated approach towards implementing sustainable development. Rather, it is meant to stimulate the elites to lead social and economic development in a responsible way which would include public debate in this field” (Piasecki & Kostrzewa, 2009, p. 12). Yet despite this prominent reference point, there remains a singular lack of awareness among politicians and hence total inertia in terms of attempting to change the policy-making process in favor of “integrated, balanced social, economic and environment development”. Nary a reference is made to SD in the political debate, and while the country also has a national SD strategy, it “has met no response among society and today it seems to be hardly remembered by anybody” (Piasecki & Kostrzewa, p. 18). According to a 2008 ecological awareness survey among Poles, only 36 % of respondents were able to properly define SD (Czapla & Berlińska, 2011).

There is also a definition of SD in standard legislative acts, e.g. SD “is such socio-economic development in which political, economic and social actions are integrated with preserving the natural balance and stability of basic natural processes in order to guarantee possibilities to meet the basic needs of particular societies or citizens for both the present and future generations” (Act of Law on Environmental Protection, article 3, point 50, p. 9, as cited in Czapla & Berlińska, 2011, p. 57–58). In terms of making the transition toward ESD, Polish higher education operates under the legal framework of the Law on Higher Education which provides individual institutions with a large amount of autonomy, which in turn acts as a powerful barrier to the implementation of a top-down strategy in any area of tertiary education (Koscielniak, 2013). The concept of ESD has hence barely taken root in Polish higher education. Educational frameworks simply do not incorporate the concept at all; there has been no systemic approach in spite of a 1991



education regulation calling for the promotion of sustainable development. Interestingly, the document called Sustainable Development Indicators for Poland makes next to no reference at all to SD in higher education (only to 3–5 year olds undergoing pre-primary education in rural areas, and adult education), while making a very brief emphasis in relation to public expenditure on education in relation to GDP (Central Statistical Office, 2011). The national SD strategy called Poland 2025: Long-Term Strategy Sustainable Development published in 2000 (Government Center for Strategic Studies, 2000), makes no substantial comment on SD in higher education and has not been updated since its original publication.

On the other hand, universities are theoretically free to introduce their own ESD policies as they wish. At the time of publication, there were no recognizable ESD programmes in place in any Polish higher education institution. However, like many other formerly socialist states at the same stage of transformation of their educational systems, SD is often associated with environmental protection, ecology or environmental education and there are a number of these types of programmes on offer within higher education. Such courses are offered at major Polish universities, including Warsaw University, Adam Mickiewicz University in Poznan, Jagiellonian University in Krakow, and Wroclaw University. Moreover, the Katowice School of Economics is a signatory to the Higher Education Sustainability Initiative for the United Nations 2012 conference Rio+20, which is an indication that some traction is being achieved within Polish higher education in pursuit of ESD (UNDEASA, 2014).

In terms of green campuses, no large sustainability changes have occurred in the management or administration at a whole-of-institution level at any Polish universities. The majority do not even bother with the most fundamental issues of establishing a green campus, such as more efficient use of water and energy, and the recycling of waste (Koscielniak, 2013).

## **2.5. Hungary**

Hungary is possibly the most difficult former socialist country in Central Europe from which to obtain useful information in English about the state of ESD, which is not to say that it does not exist at all, but rather that it perhaps exists only in Hungarian. The Hungarian National Sustainable Development Strategy of June 2007 certainly includes many positive statements in regard to sustainable development and education, although it remains hard to ascertain whether many if any practical steps have been undertaken to introduce ESD into the curriculum or institutional administration (Government of the Hungarian Republic, 2007). The strategy starts off optimistically on page three, stating that “sustainable utilization of natural resources [...] requires focusing more on bringing up future generations in a professionally

sound and well prepared way, aiming to develop environmental awareness in the family and in all areas of education.” Page six continues in a similar vein when discussing strategic objectives: “The requirements of the strategy must [...] be integrated in domestic national and regional/local programmes and action plans, including [...] education.” More detail is provided on pages 14–16 when discussing the social processes of education, including improvements in educational attainment since the change in the political system, although the document tends to focus primarily on the challenge of meeting immediate labour market needs, which may stretch the meaning of what sustainability in the education sector is actually meant to achieve.

Further on, however, the document candidly admits on page 16 that “[t]he practice of education enabling participants to acquire comprehensive knowledge concerning sustainability has not evolved yet, no education materials are available for this at present, and the education profession has only just started to prepare itself for the subject of sustainability.” Among the strategy’s goals and tasks therefore, are included the need to present the themes and values of sustainability more prominently in contents and forms of education (knowledge base 3 out of a total of 11 elaborated upon in the document), accelerating and incorporating a holistic and practice-oriented form of education into day-to-day practices (knowledge base 4), and introducing a holistic approach into the Hungarian public education system that affects the entire structure of education and training “that would comprise the teaching of development improvement and human rights, education towards peace and prevention of conflicts, intercultural education and environmental education (so-called global education)” (Government of the Hungarian Republic, 2007, p. 52–53).

It appears unlikely that the strategy has gained much adhesion in reality, however, since its publication six years ago. A research report entitled “Aspects of sustainable development of higher education institutions in the practice of quality management” commissioned by the Hungarian Institute of Educational Research and Development in 2012 which showed that the 25 % of higher education institutions covered by the report “were not active in the creation of sustainability networks, and their engagement is more of a formality” (Szandi-Varga, 2013, p. 108). According to a Hungarian report written for a collation of contributions on mapping the development of ESD competences throughout Europe as part of a project entitled University Educators for Sustainable Development,<sup>11</sup> even when Hungarian universities have created institutional ESD strategies they have often been initiated by the need to comply with EU tendering processes and have therefore had very little impact on the institutions’ operations (see Dlouhá, Barton, Dlouhý, &

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<sup>11</sup> [www.ue4sd.eu](http://www.ue4sd.eu)

Kapitulčinová 2014. p. 89). One practical example of the application of ESD at the higher education level that we found was an interdisciplinary and multi-disciplinary distance learning course called Environment and Society for in-service teacher training which involved a consortium of six higher education institutions (led by Debrecen University). The main aim of the course was to improve knowledge, skills and competences: to understand the complexity of the environment and society; to plan the form of ESD in and outside of school; to react critically to environmental and societal issues and to present these in classroom teaching; to be aware of global environmental processes and problems; and to utilize the results of ESD research for use in the classroom (Csobod, 2008). The course, developed in 1999–2000, consisted of nine 3-month modules, and was redeveloped in 2004–2005 in association with the introduction of the DESD.

### 3. Conclusion

In general, higher education policies in the countries of Central Europe have greatly changed since 1990, and the post-socialist countries in particular have undergone a deep transition during this period. Liberalization processes taking place there focused on the restoration of academic self-governance, and on the freedoms fundamental to the academic community; attention was paid to the international and global processes in which national higher education systems, institutions, and academia started to play a role. This intense transformation brought with it a growing demand for accountability, systems of quality assurance and well-defined academic performance (outputs and efficiency) throughout the region (cf. Kohoutek, 2009).

While the Lisbon Strategy<sup>12</sup> made education an important stakeholder in engagement with the “knowledge society” and a driving force of economic development and political and cultural renewal, the Bologna Process started to create European learning space which increased student mobility. In consequence, the growing numbers of students, a lack of financial resources necessary to increase system capacity, introduction of private higher education providers, and other systemic problems occurred within HEIs. These trends, especially the growth of the number of students, continue in spite of financial crisis also due to a newly launched Europe 2020 strategy, the target of which is to reach at least 40 % of 30–34 year-olds completing third level education.<sup>13</sup>

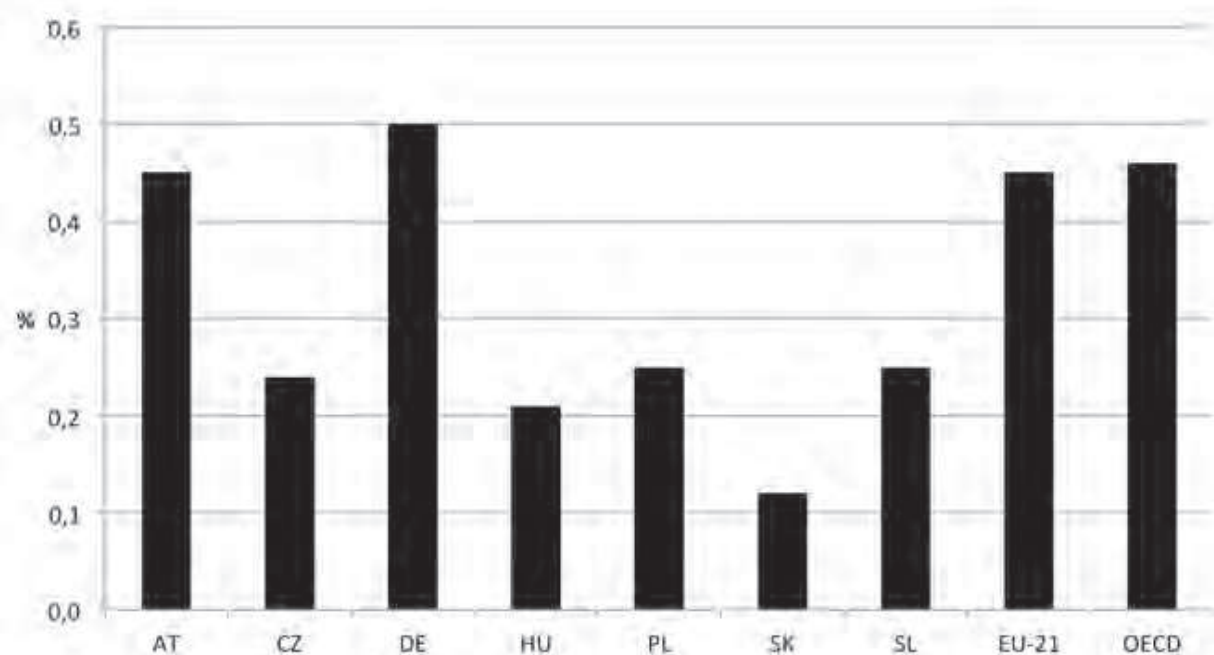
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<sup>12</sup> See [http://cordis.europa.eu/programme/rcn/843\\_en.html](http://cordis.europa.eu/programme/rcn/843_en.html).

<sup>13</sup> One of the five targets for the EU in 2020. See <http://ec.europa.eu/europe2020/targets/eu-targets/>.

Many of these structural changes in educational systems were similar across the region, but differences in the institutional framework emerged due to the diverse transformation processes.<sup>14</sup> Specific conditions in a country greatly depended on past policy, and the institutional system and cultural features that form a tradition within the educational sector. In some central european countries under transition, HE institutional structures were somehow “petrified” because of the academic freedom and traditional value system, which recently resulted in the application of a mostly conservative paradigm of science that does not go beyond its traditional boundaries (Dlouhá & Moldan, 2011). A lack of transdisciplinary study programs or other opportunities, non-existent university outreach and dialogue with social actors and other “traditional” prejudices have thus often acted as obstacles to progressive trends in (not only ESD oriented) higher education in this region. A rosier outlook can be seen only in those countries (and periods) where (and when) investments in HE have been and are relatively high – as documented in Figure 5 below and previous sections.

**Fig. 5. Annual expenditure on research and development at tertiary education institutions as a percentage of GDP as at 2009**



Source: OECD (2012).

<sup>14</sup> Specific challenges that faced educational systems under transition in central european countries were related to the needs of a market economy (Burnett, 1996), e.g. the mission of academic institutions was changed and they reoriented towards research and innovation. In these countries, higher education institutions were initially oriented toward teaching and research took place in separate institutions yet competed for the same budget (Balázs *et al.*, 1995, p. 616). Recently, research outcomes are one of the quality indicators of HEIs in most of the EU countries including CEE.

HEIs that in general have a great potential for embarking upon the ESD transition (as there is considerable expertise in environmental/sustainability science in the central european region) are still dependent in the post-socialist region on – or are struggling with – policies that originated outside academia, i.e. the plethora of strategies and action plans handed down from government. They cannot be easily internalized as the ESD-oriented discourse at the academic level is inadequate: reflection of on-going processes which can provide information for refocusing or altering accepted strategies is often neglected in this sector (Stephens & Graham, 2010, p. 614). And the support mechanisms necessary for pursuing this type of discourse are often weak or missing altogether in the post-socialist central european states: institutional administrative and governance structures can be sclerotic and immune to innovation, political support is rarely forthcoming and hence the financing required to set up new transdisciplinary arrangements is lacking, mid-level public servants lack the capability, capacity and institutional knowledge to follow up on high level declarations of intent, and there are inadequate channels and forums for ground-level voices calling for greater interdisciplinary sustainability studies to be heard.

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