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Final Report – Executive Summary

Socio-economic challenges, potentials and impacts of transnational cooperation in central Europe

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EXECUTIVE SUMMARY

VASILY ASTROV
RICHARD GRIEVESON
DORIS HANZL-WEISS
GÁBOR HUNYA
STEFAN JESTL
ISILDA MARA
OLGA PINDYUK
LEON PODKAMINER
SÁNDOR RICHTER
ROMAN RÖMISCH (COORDINATOR)

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1. Introduction

This study analyses the territorial challenges, potentials and impacts of transnational cooperation (TNC) in Central Europe (CE). The study is divided into three tasks:

1. Identification of the main territorial challenges and needs that are affecting CE,
2. Analysis of impacts and results of transnational cooperation in CE achieved by the CE 2007-2013 Programme and illustrated by concrete case studies,
3. Outlook and conclusions on the needs and potential of transnational cooperation in CE.

Task 1 analyses the main challenges that affect the CE area as well as the specific needs that have to be addressed in the framework of TNC to improve working and living conditions in CE. Second, Task 1 identifies policy areas for which TNC has a high potential to promote regional integration and development.

Task 2 focusses on the achievements and results of the CE 2007-2013 Programme. In addition it analyses the focus of the Interreg CE 2014-2020 Programme. The first part of Task 2 includes a quantitative and qualitative analysis of the CE 2007-2013 and the 2014-2020 Interreg CE programmes. The second part consists of a survey conducted among 2007-2013 project partners and of 12 case studies providing an in-depth analysis of selected projects of the CE 2007-2013 Programme.

Task 3 summarises the results of both tasks and assesses the key contributions of the CE Programme to tackle the region's challenges. The task comments on the CE Programme's synergies with other EU policies. In addition, Task 3 provides recommendations regarding the fourth call for proposals of the current Interreg CE Programme. Finally, it also gives an outlook of the potential focus of a post-2020 CE programme.

2. The main territorial challenges of the CE region

Task 1 focused on ten main challenges that affect CE as well as the specific needs that have to be addressed within the framework of TNC, in order a) to tackle these challenges, and as a result b) to improve the socio-economic situation in the CE territory. The challenges were identified on the basis of a survey of recent studies, reports, policy papers and academic literature, such as the Seventh Cohesion Report¹ or several studies by DG Regio². As a result of this survey, the main challenges for the CE region were identified as: a) globalisation, b) digital economy, c) transport and accessibility, d) energy, e) circular economy/environment, f) climate change, g) employment and skills, h) social risks, i) demographic change/migration and j) governance.³

2.1. GLOBALISATION

Globalisation is characterised by increased flows of goods, services, capital, people, and information across borders as well as the emergence of global value chains and the implied cross-border production sharing between countries. Thereby, manufacturing activity in the EU has become increasingly concentrated in the Central European 'manufacturing core'.

It consists of Austria, the Czech Republic, Germany, Hungary, Poland and Slovakia.⁴ For CE purposes this area is slightly re-defined by including Northern Italy and Slovenia as well as excluding those German regions not being part of the CE programme area (see Figure 1 left graph). This adjusted industrial core ('CE') produced around 35% of total manufacturing industry gross value-added (GVA) in 2015. It was only surpassed by Western EU regions that in total had a share of 37.8%, though 11% thereof was produced by UK regions and hence will have to be deducted after Brexit. German regions not in the CE programme are ('DE Non-CE') accounted for 13%, Southern EU countries for 12% and the other CEE countries for 2% of total EU-28 manufacturing GVA in 2015.

Looking at the changes in manufacturing GVA shares strengthens the notion of the CE region being the EU's industrial core (see Figure 1 right graph). From 2003 to 2015 the CE region's share in EU manufacturing GVA increased by 4.7 percentage points, while the share of all other regions, except those in the other CEE countries decreased. This is the results of strong re-industrialisation trends in the CE countries and the continuous de-industrialisation in Southern and Western EU countries.

At the same time it shows that the regions most vulnerable to globalisation appear to be in Southern Europe, as well as in Southeast but also Central and Eastern Europe. To fight these vulnerabilities, the Europe 2020 strategy includes, among other things, the following flagship initiatives: industrial policy, which entails improving the business environment; modernising labour markets by facilitating labour

¹ DG Regio (2017), My Region, My Europe, Our Future: Seventh report on economic, social and territorial cohesion, September.

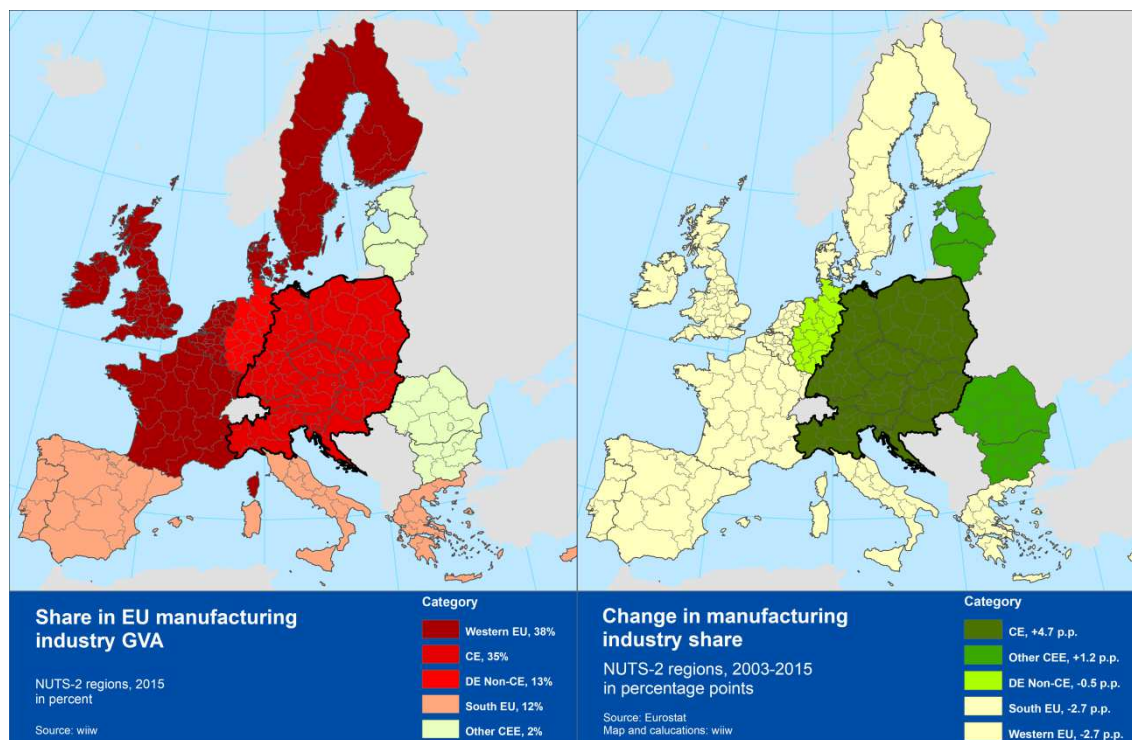
² See for example: DG Regio (2011), Regional Challenges in the Perspective of 2020 – Phase 2: Deepening and Broadening the Analysis. Final Report.

³ This list does not constitute a hierarchy of challenges.

⁴ Hanzl-Weiss et al., 2018.

mobility and the development of skills; and improving access to finance for research and innovation, in order to strengthen the innovation chain and boost investment. Also, the European Commission's cohesion policy aims to reduce the differences between regions and to ensure convergence across Europe. The European Structural and Investment Funds (ESIF) are among its main tools. Developing a Research and Innovation Strategy for Smart Specialisation (RIS3) is currently a prerequisite for receiving funding from the European Regional Development Fund (ERDF). Established in 2011, the Smart Specialisation Platform (S3P) assists Member States and regions to develop, implement and review their RIS3 strategies by providing information, methodologies, expertise and advice. These include a focus on identifying niche areas of competitive strength, solving major societal challenges, and innovation partnerships.

Figure 1: Shares in manufacturing gross value added and changes therein by country groups, %



Source: wiiw

Two crucial TNC policy areas in the field of globalisation are a) industrial policy and b) innovation (the policy area skills and education is dealt within the 'Employment and skills' challenge). Despite the strong industrial base of many CE countries, industrial policy can still make important contributions to their development. Policies could support the technological change of existing firms, thus preserving their competitiveness and demand for labour. In particular, Information and Communication Technology (ICT) adoption is crucial for technology transfer and the ability of countries to participate successfully in higher value added activities, and can significantly affect the competitiveness of countries.

Innovation has become a crucial aspect of competitiveness in the globalised world. It is also a key issue as well as a key problem in the CE territory, especially for the Eastern CE countries as many are lagging behind in their R&D expenditures compared to other EU countries. If these countries keep these low R&D expenditure rates, they risk being stuck in a 'middle-income trap' not being able to converge to more advanced countries. To strengthen innovation the following points need to be addressed (as has been done by a number of CE 2007-2013 projects like Centrope_tt, FREE, INNOTRAIN IT, PROINCOR, CEBBIS, ACCESS, FLAME, IntraMED-C2C and CentraLab):

- The innovation and competitiveness potential of CE regions,
- Interregional cooperation, which is a key element in globalised economies;
- Strengthening the focus on less developed and industrial transition regions;
- Improving and building on joint work across EU policies and programmes supporting innovation.

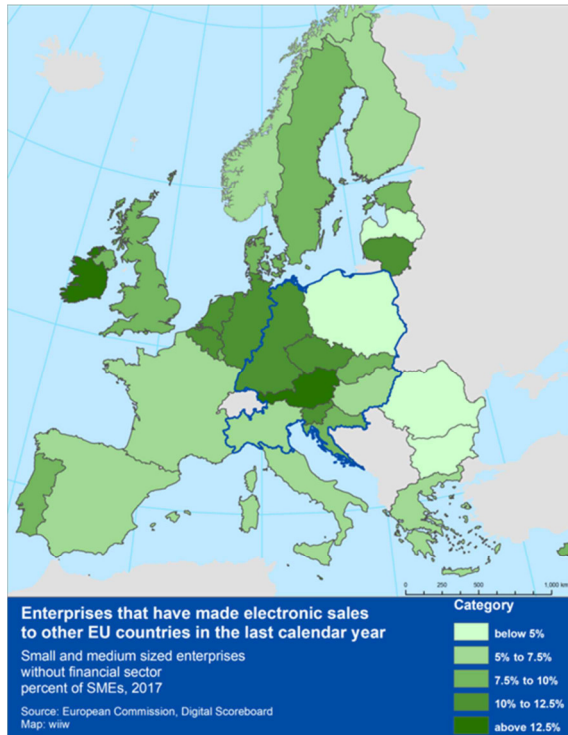
2.2. DIGITAL ECONOMY

Digital economy includes all economic activities, transactions and interactions that in one way or another are affected by ICT. The challenge of the digital economy is the speed and comprehensiveness of digital transformation is. Keeping up with it, learning to apply ICT in both, the private and business sphere, to improve and stay competitive, using these technologies to innovate and develop new products and services, requires equally quick and comprehensive adaptations and measures from the private and public sector. The main digital TNC policy areas are:

Fragmented digital markets: EU online markets are still national. Commercial and cultural content faces difficulties to flow across borders, given the differences in the Member States' regulatory frameworks including payment and invoicing systems as well as dispute resolution. The existing fragmentation of the CE territory is illustrated in Figure 2 that shows the percentage of SMEs that reported electronic sales to other EU countries in 2017.

Lack of interoperability: Interoperability addresses a number of areas, e.g. a) the communication between digital components and devices (relating to the internet of things), b) the communication and connection along the supply chains of industry and services sectors and c) the domestic as well as cross-border communication and connections between communities, public services and authorities (e-government).

Figure 2: Enterprises that have made electronic sales to other EU countries in the last calendar year, 2017 – SMEs (10-249 persons employed), without financial sector

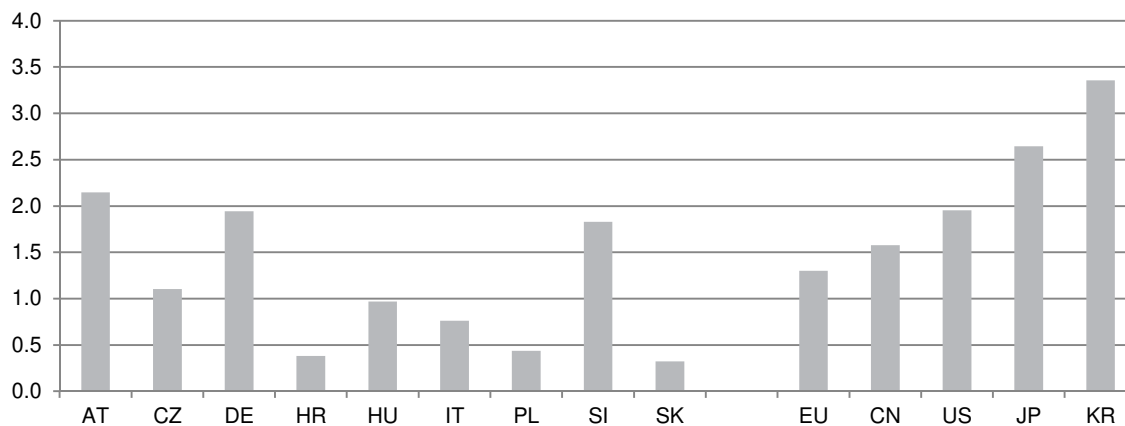


Note: Blue line indicates CE territory

Source: European Commission, Digital Scoreboard.

As far as research and innovation is concerned, there is a continuous underinvestment in ICT-related research and innovation in the EU. TNC can be a powerful platform to promote ICT R&D both at the national and regional level. In contrast to larger scale EU wide programs like Horizon 2020, which may be attractive only for those actors that already have a high level of ICT R&D, Interreg TNC could be more inclusive by covering regions and actors with different R&D levels. This is all the more important given the large differences in ICT R&D levels and potentials in the CE regions where countries with high R&D levels such as Austria, Germany and Slovenia form a functional area with countries characterised by low levels of ICT-related R&D (see Figure 3). An example of the role that TNC could play is the Interreg CE NUCLEI project, which aims to establish a transnational innovation management model in the CE regions and to create a transnational pool of knowledge that supports advanced manufacturing innovation beyond regional borders.

Figure 3: ICT-related Business Enterprise Research and Development (BERD) spending, as % of GDP, 2014



Source: JRC Predict Dataset 2017, Eurostat, World Development Indicators.

Regarding digital literacy and skills, digital transformation will have major repercussions on the labour markets, as new types of jobs are created while other jobs will be transformed or even disappear. As demand for digitally skilled employees is growing by around 4% per year and supply with an adequately trained work force is not keeping track, the EU might face a shortage of ICT professionals of around 825,000 unfilled vacancies by 2020.

TNC in the CE territory has a number of options to support and expand the digital economy. Thus regarding the integration of the digital markets TNC could:

- Promote the necessary digital skills to participate in the digital market,
- Continue supporting the creation of general or sector-specific digital platforms and initiatives that help to improve cross-border business to customer or business-to-business relations. These platforms could cover a wide range of activities including online advertising platforms, marketplaces, search engines, social media and creative content outlets etc.

An example for this is the Interreg CE I-CON project, which provides a platform for SMEs in the food sector thereby linking cross-sectoral competences in design, mechatronics and labelling to food processing to increase the competitiveness of the involved food SMEs.

Regarding ICT interoperability TNC could:

- Contribute to enhance cross-border communication of public services.

Although there is a current EU programme (ISA2) and framework addressing these issues at the European level, there seems to be an important role left for TNC to strengthen the cross-border communication of CE regions and countries via ICT solutions. This is illustrated by the current Interreg CE digitalLIFE4CE project, which seeks novel solutions in the field of digital integrated healthcare systems.

As far as TNC literacy is concerned TNC could:

- Provides a platform to promote digital literacy in less favoured areas and regions, thus enabling them to participate in the digital markets in the EU in general and in CE in particular.

One way to do this is shown by the CE 2007-2013 project INNOTRAIN-IT that facilitated innovation in SMEs by strengthening the performance of their IT departments through promoting Information Technology Service Management (ITSM).

2.3. TRANSPORT AND ACCESSIBILITY

Transport is fundamental to the economy. The mobility it provides is a driving force in the integration of EU and CE markets as well as of people, fostering their cooperation and creation of networks. For this, a well-developed and safe transport infrastructure is crucial. It provides access to markets and people and, due to its longer-run economic dimension, reduces production costs, leads to efficiency gains through specialisation and increases the likelihood of broad industrialisation for less developed regions. Additionally, in the short run, infrastructure construction, by increasing aggregate demand, can stimulate economic growth.

The main TNC policy areas in transport are: a) A modern infrastructure connecting countries and regions, b) energy efficient and environmentally sustainable transport and c) safe transport.

Given the importance of the Trans-European Transport Networks (TEN-T) that cover investments in roads, railway lines, inland waterways, maritime shipping routes, ports, airports and rail-road terminals, TNC needs to link up to this pan-European policy. The experiences from the 2007-2013 period show that, TNC can effectively contribute to the development of transport infrastructure in the CE region through:

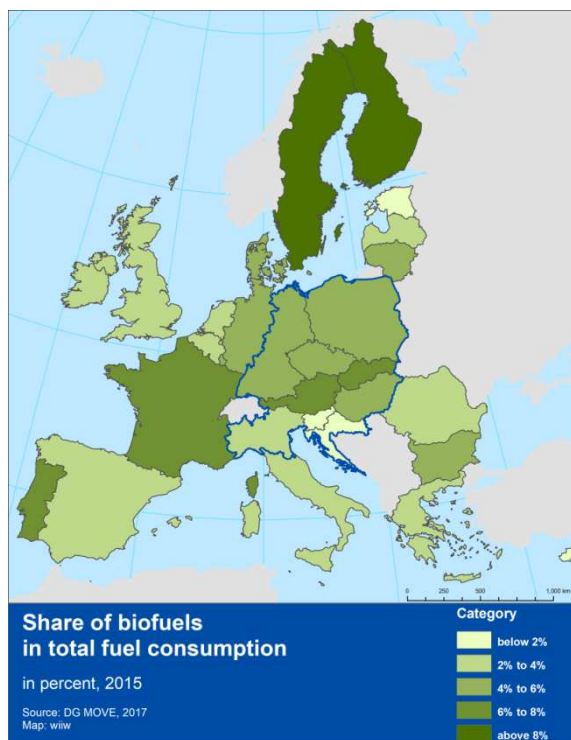
- Analytical, planning and investment preparation activities (for example the CE 2007-2013 BATCo SoNorA and FLAVIA projects) The main issue for the CE region is to remove existing bottlenecks and barriers that inhibit a smooth flowing transport,
- Improving the CE regions' accessibility by connecting more remote CE territories to the pan European transport networks thus increasing their economic attractiveness (like the CE 2007-2013 CONNECT2CE, RUMOBIL and TRANS-BORDERS projects).

The energy efficiency of transport and its environmental sustainability (see Figure 4 for the use of biofuels) depends, apart from technology, on the modes used to move goods and passengers from one place to another. As much of the commercial and private transport still rely on cars and trucks, TNC should continue linking up with other EU policies focusing on

- Improving the energy efficiency of vehicles through technical innovations (e.g. the CE 2007-2013 KASSETTS project),
- fostering the use of multimodal logistic chains, including especially rail and water transport for freight and public transport for individual transport (like the CE 2007-2013 INWAPO project),

- using transport infrastructure more efficiently through the use of improved traffic management and information systems.

Figure 4: Share of biofuels in total fuel consumption, in %, 2015



Note: Blue line indicates CE territory

Source: DG MOVE, 2017.

Regarding public transport, there should be a special focus on urban transport, as it is responsible for around one quarter of transport CO₂ emissions and more than two thirds of all road accidents. Introducing and popularising 'clean' urban public transport as well as promoting walking and cycling within cities are important contributions to reduce fossil fuel consumption and GHG emissions, to lower congestion and noise and to improve air quality (see for example the CE 2007-2013 Central Meet Bike and TROLLEY projects).

In 2015, more than 26,000 people died on the roads of the European Union, i.e. the equivalent of a small to medium sized town. Also in 2015, over 1 million road accidents happened⁵, incurring large economic and social costs⁶ and even larger personal tragedies. Almost half of the fatal accidents and around 55% of the total accidents occurred in CE countries. To improve road safety, European transport policy has set seven strategic objectives. However, actual Interreg projects in this area are few. In the CE 2007-2013 Programme only one out of 21 transport-related projects focused on transport safety (the SOL project).

⁵ Mobility and Transport - Statistical pocketbook 2017, DG Transport.

⁶ In 2009, more than 35,000 people died and 1.5 million people were injured on European roads. The societal costs were estimated to be around EUR160 billion (EU Commission, 2010).

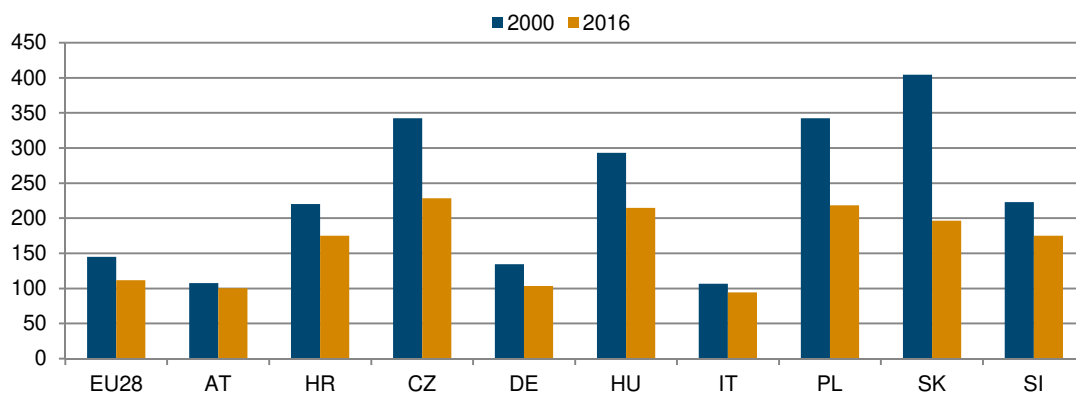
2.4. ENERGY

The EU 'Energy Union' package promotes the EU goals of 'smart, sustainable and inclusive growth' by, targeting five dimensions: a) energy security, b) internal energy market, c) energy efficiency, d) decarbonisation, and e) research, innovation and competitiveness. The aim of the Energy Union is to ensure that European consumers have secure, affordable, competitive and sustainable energy.

The CE's present energy system is heavily dependent on imported fossil fuels. In addition, the energy intensity of many CE countries tends to be higher than the EU average (see Figure 5), although the share of renewables in the energy mix is at the similar level. Many CE countries (with the exception of Austria, Germany and Italy) are vulnerable to peak energy demand, e.g. for cooling during the heat waves in summer and for heating under extreme winter conditions. Some countries, above all the Czech Republic and Poland, heavily rely for electricity generation on coal – the least 'clean' fossil fuel with the highest carbon footprint.

Figure 5: Energy intensity in CE and EU-28

in tonnes of oil equivalent per million EUR of GDP (at constant 2010 prices)



Source: https://ec.europa.eu/energy/en/atico_countriesheets/datamapper?indicator=EE1&subindicator=EE1-A1

The main energy policy areas relevant for TNC are a) energy efficiency (see e.g. the CE 2007-2013 GovernEE, CombinES and EnSURE) and b) renewable energy (see for example the CE 2007-2013 GeoPLASMA-CE, 4BIOMASS or TRANSENERGY projects). In these areas Interreg projects have delivered important results through:

- mutual learning between regions with different development backgrounds (for instance, a region which is just starting to develop own renewable energy sources may learn a great deal from a region with thirty years of experience);
- skill synergies (access to skills which are not available in the region; such skill synergies can be observable even between regions at a similar development level);
- development of transnational actions, which allows to exploit the economies of scale (particularly in view of the often limited fiscal resources at the regional level, see for example the CE 2007-2013 COACH BioEnergy project);

- political and social buy-in (whereby TNC allows raising the profile of energy issues at stake), like the CE 2007-2013 CEC5 project.

2.5. CIRCULAR ECONOMY/ENVIRONMENT

Circular economy is new to EU policy-making and started in 2015, with the adoption of the Circular Economy Package. It includes legislative proposals on waste and an action plan to support the circular economy. In it, circular economy is defined as an economy “where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste is minimised”⁷. Given this, it covers a wide range of areas such as:

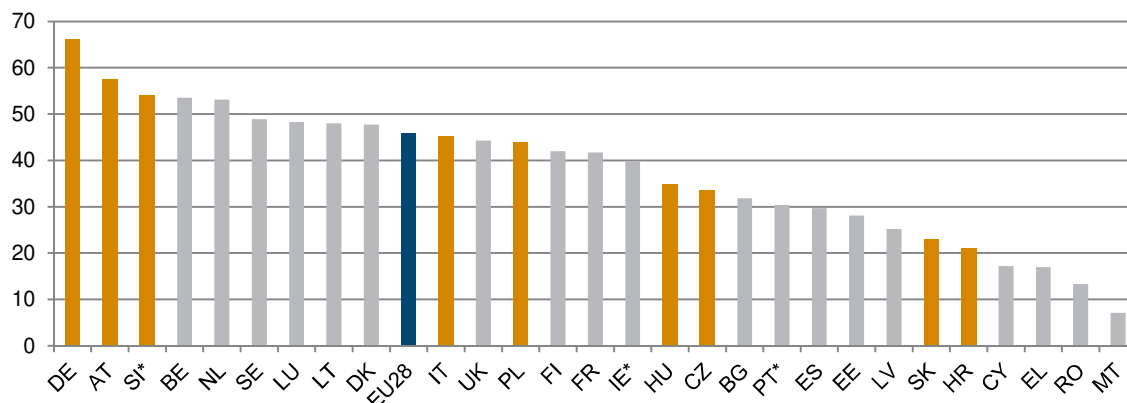
- Production: Targeting better product design and efficient production processes,
- Consumption: Facilitating consumers to support the circular economy,
- Waste management: Finding better ways to collect and manage waste in order to reach high recycling rates and low landfilling rates,
- Secondary raw materials and water reuse: Promoting materials that can be recycled to be injected back into the economy (see Figure 6 on the recycling rate of EU countries),
- Eco-Innovation, investment and other horizontal measures: Stimulating the transition to a circular economy.

Likewise, the environmental topic covers an equally wide range of issues including:

- Air quality: Reducing air pollution produced by the burning of fossil fuels in electricity generation, transport, industry and households, industrial processes, agriculture and waste treatment.
- Biodiversity: Securing the variety of ecosystems, species and genes in a particular habitat
- Soil: Protect its function as provider of food, feed, fibre and fuel production and raw materials; soil also purifies and regulates water, and provides a reservoir for genes and species
- Water: Protect and use its vital functions, such as filtering, diluting and storing water, preventing floods, maintaining the climate balance and safeguarding biological diversity. Additionally, water ecosystems provide the means of transport and trade, recreation as well as water supply.

⁷ EU Commission (2015), Closing the loop – An EU action plan for the Circular Economy, COM(2015) 614 final.

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Figure 6: Recycling rate of municipal waste, 2016

Notes: *Data for Ireland and Portugal for 2014, data for Slovenia for 2015.

Source: Eurostat.

Transnational cooperation has many ways to support the circular economy and to protect the environment. Past CE 2007-2013 projects, like CERREC, EcoPaperLoop, LABEL, and the current Interreg CE projects BIOCMPACK-CE, AIR TRITIA, etc., doing this pursued the following activities:

- the sharing of information among various actors, businesses, SMEs or consumers;
- the exchange of knowledge, experiences and best practises;
- the development of action plans and strategies;
- the demonstration of useful practices through pilot actions;
- the support of innovation
- cross border approaches to tackle cross border problems (e.g. related to water, air quality etc.)

2.6. CLIMATE CHANGE

Over the last 100 years, the average global surface temperature has increased by 0.74°C, and the sea level has risen by 17 cm during the 20th century. These and other data deliver sufficient evidence that greenhouse gas (GHG) emissions from human activity are causing climate change.

The most important climate related TNC policy areas (not covered elsewhere) are: a) the increase in heat extremes / the energy demand for cooling and b) river floods.

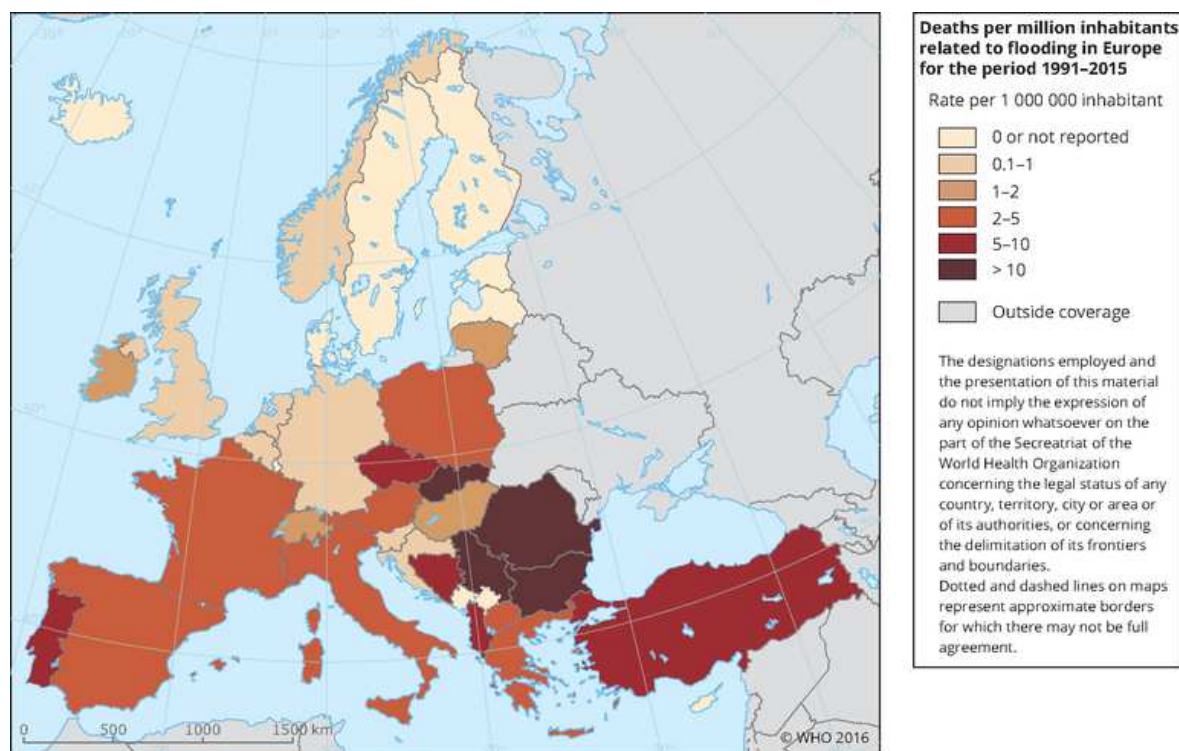
Higher mean and maximum temperatures coupled with an increasing frequency and intensity of heat waves represent one of the most consequential events concerning human comfort and sustained health. Heat waves will become more intense as climate change progresses. Though not specific to the CE countries, the rising number of heat days and tropical nights in vast areas of Europe including CE will result in heat stress and increased heat mortality during the summer months. TNC could contribute to mitigate these effects by:

- Supporting alternative energy production and the improvement of energy efficiency
- Increasing the exchange of experiences, pilot actions, the development of strategies etc., like e.g. in the CE 2007-2013 Urban Heat Island (UHI) project.

Regarding river floods, their occurrence had dramatically increased since the year 2000 according to the European Environmental Agency. A further increase in flood risk is projected for Austria, Hungary, Slovakia and Slovenia. Therefore, river floods should be the prime terrain for TNC (see Figure 7). TNC activities should include:

- Sharing knowledge on prevention and uniting technical and human resources if floods occur. A number of CE 2007-2013 projects like LABEL, CE-FRAME, INCA-CE and INARMA illustrated the TNC capacity to do so. Currently, two Interreg CE projects address this issue: RAINMAN analyses the consequences of heavy rains and the related risks, and PROLINE-CE focuses on improving the protection of drinking water resources and protecting regions against floods and droughts.

Figure 7: Deaths related to flooding in Europe



Source: <https://www.eea.europa.eu/data-and-maps/indicators/floods-and-health-1/assessment>

2.7. EMPLOYMENT AND SKILLS

Employment is a prerequisite to reduce poverty and limit social exclusion. Being employed enables individuals to cover their basic needs and provides opportunities to participate in society. Employment is closely related to education and training. In a world with technological change and a rapid labour market

transformation, individuals need to have opportunities to update and improve their skills continuously. This keeps them in employment and reduces the risk of unemployment.

The main TNC policy areas concerning employment and skills are: a) education systems, b) skill upgrading & life-long learning (LLL) and c) youth unemployment and Young people not in employment, education or training (NEET).

TNC can hardly change national education systems. Its strength is the ability to focus on specific areas, both from a topic and geographic point of view. This is illustrated by two CE 2007-2013 project examples:

- The CE 2007-2013 WOMEN project aimed at mitigating the brain drain of well-qualified young women. It highlighted potential female career prospects in rural areas through a number of pilot actions and the build-up of a network of successful female entrepreneurs and senior staff to increase the social attachment of women to their regions.
- The CE2007-2013 i.e. SMART project specifically addressed innovation-related knowledge and human capital development by promoting training programmes for entrepreneurs (similarly to the current Interreg CE project CERlecon), as well as a transnational strategy and action plan to institutionalise the project's concept, approach, and outputs.

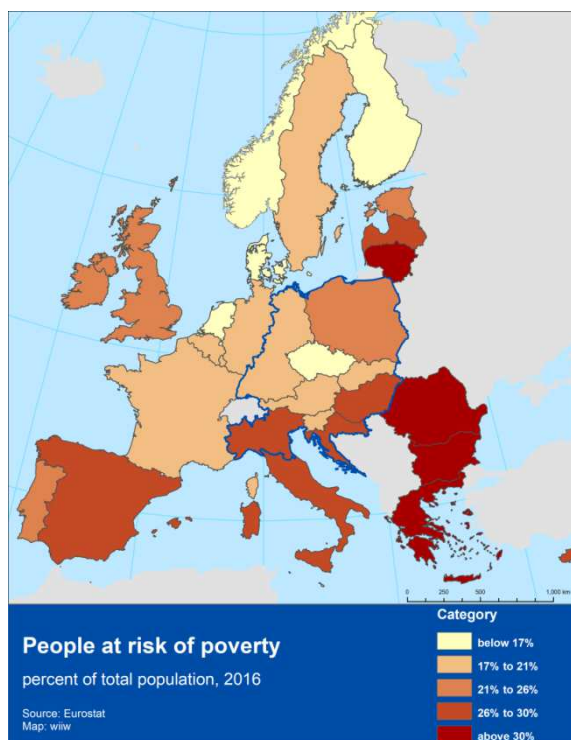
Given the differences in vocational training systems and in LLL between the CE countries and the best performing EU countries, there is ample room for TNC to get active via the exchange of experiences and training models, the development of joint strategies or pilot actions such as specific training programmes. Similar holds for tackling the number of young unemployed and NEETs (especially in Croatia and Italy), where TNC has provided good results by promoting best practice examples or launch pilot actions providing training to young people, like in the 2007-2013 YURA project or the Interreg CE project CERlecon.

2.8. SOCIAL RISKS

The key challenges of social risks and social polarisation are poverty and material deprivation as well as social exclusion. The unequal distribution of material and immaterial resources corresponds to unequal access to public and private services that affects the opportunity to take part in the society. The social disparities in the CE territory as well as in the EU are illustrated in Figure 8.

In addition, declining job stability and higher work flexibility increase social risks and polarisation. Moreover, higher wealth and income inequality and a limited access to Services of General Economic Interest add to the challenge of social risks. Social cohesion addresses these issues and aims to fight poverty, inequality and social exclusion. Based on this the key policy areas for TNC are:

- Equal opportunities and access to the labour
- Fair working conditions
- Social protection and inclusion

Figure 8: People at risk of poverty, in % (2016)

Note: Blue line indicates CE territory

Source: Eurostat.

A well-functioning society provides equal opportunities to all individuals and is free from discrimination. All individuals who want to participate in the labour market should have the opportunity to do so. Generally, the CE countries perform well in this respect (if compared to the EU average), the main exception being Croatia. However, employment does not always protect against poverty and social exclusion. Therefore it is important to support individuals to find sustainable and quality employment. TNC has made significant contributions through a number of projects like the Interreg CE project SENTINEL (transnational coordination and support of social enterprises) or INNO-WISEs (improving the capacity of the social economy to offer qualified jobs to disadvantaged groups). Similar holds for fair working conditions, where e.g. the Interreg CE project CERlecon provides a mix of financial and non-financial support (strategies, action plans, pilot actions) to assist entrepreneurs in setting up new firms.

Regarding social protection and inclusion TNC was successful in establishing networks to discuss and exchange ideas and best practices. Such networks allow coordinating and jointly implementing pilot actions and help to identify potential fields of services for further transnational co-operations and pilot actions, like in the Interreg CE projects INTENT or digitalLIFE4CE.

2.9. DEMOGRAPHIC CHANGE/MIGRATION

Demographic change relates to a population's age structure adjusting to changes in living conditions and broadly understood societal norms. Changes in the composition of a society's age structure are driven by natural processes (births and deaths) but also result from the ongoing social shifts and evolving

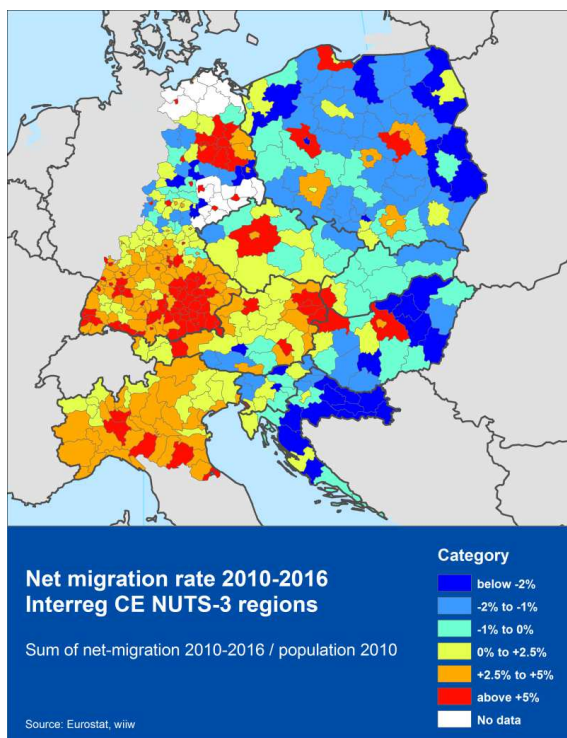
attitudes as well as the material conditions and incentives that could be shaped by policies. Within the demographic change the population ageing, the natural population decline following shrinking fertility rates and inward and outward migration are the most pressing topics.

Given current population forecasts, the expected negative effects of population ageing and population shrinkage due to low fertility rates on the economies and the social systems in the CE countries are going to be large. This necessitates equally large adjustments to maintain the present standards of living. To tackle this challenge, all possible policy tools (European, national and transnational) need to be used. TNC is highly complementary to other, mostly national policies, such as those initiated by the European Social Fund, as it allows:

- Learning from the experiences of other countries that face the same problem,
- pooling the resources of various countries, making tackling the challenge more efficient for each of the participating countries (see the CE 2007-2013 projects Q-AGEING, CE-Ageing Platform, HELPS and Senior Capital).

In the past, migration has not been a priority for Interreg in general and Interreg CE in particular; only recent events have made it a thematic focus. Nonetheless, migration has become a major issue whose importance for the CE region may even grow in the future. See Figure 9 for the regions particularly affected by in- and outward migration in the CE territory.

Figure 9: Net migration rate in Interreg CE NUTS-3 regions, 2010-2016



Source: Eurostat, wiiw.

Given this, migration must not be lost from the policy radar at Interreg CE. A worthwhile option for TNC could involve formulation and implementation of projects whose aim would be to learn from the national and regional experiences with respect to the management of migration flows (both inflows and outflows) throughout the CE territory (see for example the CE 2007-2013 Re-Turn project). This should lead to the identification of the most problematic issues, such as e.g. the integration of immigrants from non-EU countries, and the best practices to cope with them.

2.10. GOVERNANCE

The challenge of cooperating across borders in Central Europe is a fundamental governance challenge. Countries with different governance cultures and institutional settings on both sides of the former 'Iron Curtain' meet in a common European Community region.

Cooperation in Central Europe has several historical forms, which are mainly confined to the government level. Business integration is advanced through production linkages and foreign direct investment (FDI), which spreads advanced governance standards. Cooperation between regions is a major way of implementing EU policies in various areas. Macro-regional strategies stretch beyond EU borders and foster regional cooperation between groups of countries in the same geographical area. Regions covered by the Interreg CENTRAL EUROPE Cooperation Programme participate in all four existing Macro-regional strategies, covering the Danube Region (EUSDR), the Baltic Sea Region (EUSBSR), the Alpine Region (EUSALP) and the Adriatic and Ionian Region (EUSAIR).

Good public governance is a prerequisite for the efficient operation of TNC, as policies and projects involve central, regional and local government bodies as facilitating, participating and implementing agencies. In addition, several of the projects propose improvements in the governance of specific policy areas (such as energy efficiency, waste control, etc.) that must be integrated into policy reforms.

TNC contributes to strengthening public governance in the CE region, cutting across the current Interreg CE Programme priorities and objectives and finding ways into each of them. Interreg CE projects address governance aspects mainly as a horizontal issue. They contribute to improving public governance by their internal structure and the way they are organised and controlled. However, public sector and other partners operate in a national and regional public governance environment, which is subject to the risks of bad governance, conflict of interest and corruption.

TNC programmes offer opportunity for:

- Improving the quality of governance (in particular multi-level governance in several sectors, which is an important aspect in many projects)
- providing novel services to the public.
- anti-corruption experience sharing⁸, which is part of the work in project networks.

⁸ https://ec.europa.eu/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/corruption/experience-sharing-programme_en

Innovative projects implemented under the Interreg CE Programme contribute to improving public governance in specific policy areas. As they operate transnationally, they transfer best practice and also introduce novel governance approaches which can be implemented on a wider scale.

3. Impacts and results of the CE 2007-2013 programme, outlook for the 2014-2020 programme, survey results and case studies

The analysis in Task 2 is split in five steps. The first step analyses the inputs, outputs, results and outreach of the CE 2007-2013 Programme in a quantitative manner, while the second step investigates the results and impact of the programme in a qualitative manner. Step 3 analyses the current Interreg CE Programme with respect to its main priorities and topics covered so far. The fourth step shows the main result of a survey conducted among beneficiaries of the CE 2007-2013 Programme, and the fifth step consists of twelve case study projects of the CE 2007-2013 Programme for a more detailed insight on the programmes' results and achievements, also on the basis of information collected through interviews.

3.1. QUANTITATIVE ANALYSIS OF INPUTS, OUTPUTS, RESULTS AND OUTREACH OF THE CE 2007-2013 PROGRAMME

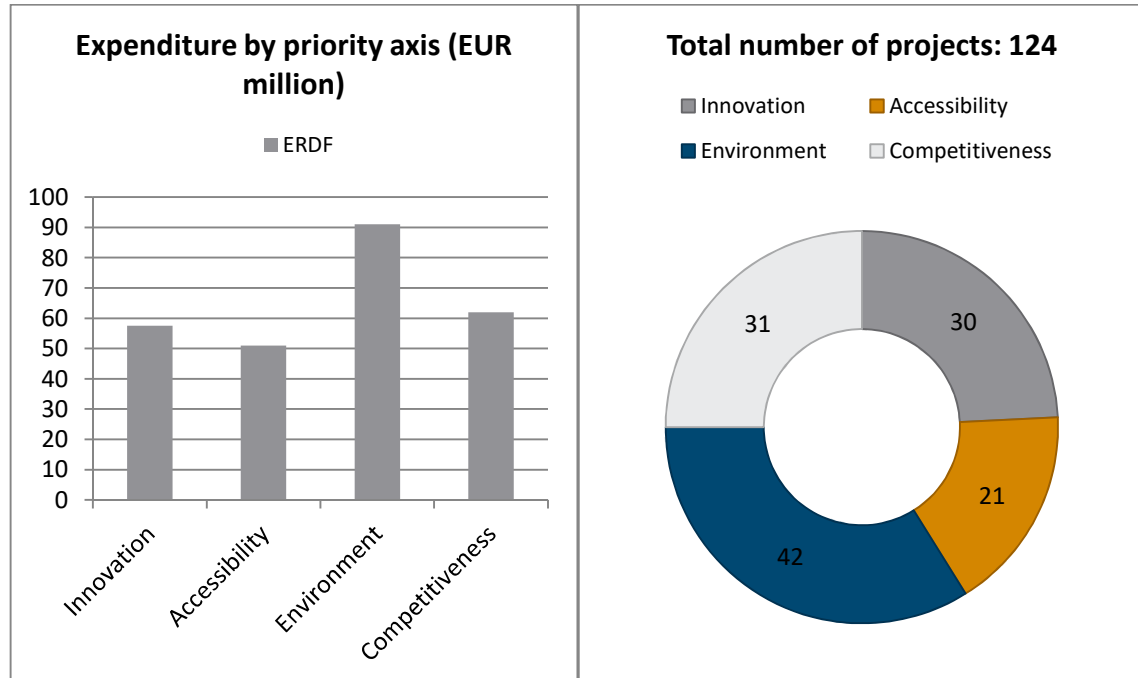
Inputs

In the period 2007-2013, the CE Programme spent in total over EUR **260 million** to finance **124 projects** in the four priority areas: 1) innovation, 2) accessibility, 3) environment and 4) competitiveness. Around 83% of the expenditure was financed via the European Regional Development Fund (over EUR 231 million), 16% via public co-financing (around 42 million Euro) and 3% from private co-financing (almost EUR 8 million).

Broken down by priority axes, the highest share of ERDF expenditure went to the environment priority axis, which had both, the largest number of projects (42) as well as the largest volume of funding (ca. EUR 91 million). 31 projects in the competitiveness priority axis were supported with EUR 62 million, 30 projects in the innovation priority axis with EUR 57.5 million and 21 projects in the accessibility priority axis with EUR 51 million (see Figure 10).

The highest number of project partners was recorded in Germany (236), Italy (220) and Poland (193). However, smaller CE countries tended to be over-proportionately represented in terms of CE projects as well as regarding their share in the total budget if compared to their population size.

Figure 10: Expenditure (in EUR million) and number of projects, by priority, 2007-2013 CE Programme



Source: MA/JS Interreg CE Programme.

Outputs and results⁹

In the CE 2007-2013 Programme the five main output types are to the result of: a) joint strategy + action plan development, b) transnational tool development, c) joint management establishment, d) investment preparation and e) pilot actions. In addition, the CE 2007-2013 Programme also used a number of thematic result indicators, like a) the amount of funds leveraged based on project achievements, b) the number of jobs created and c) the number of trained persons:

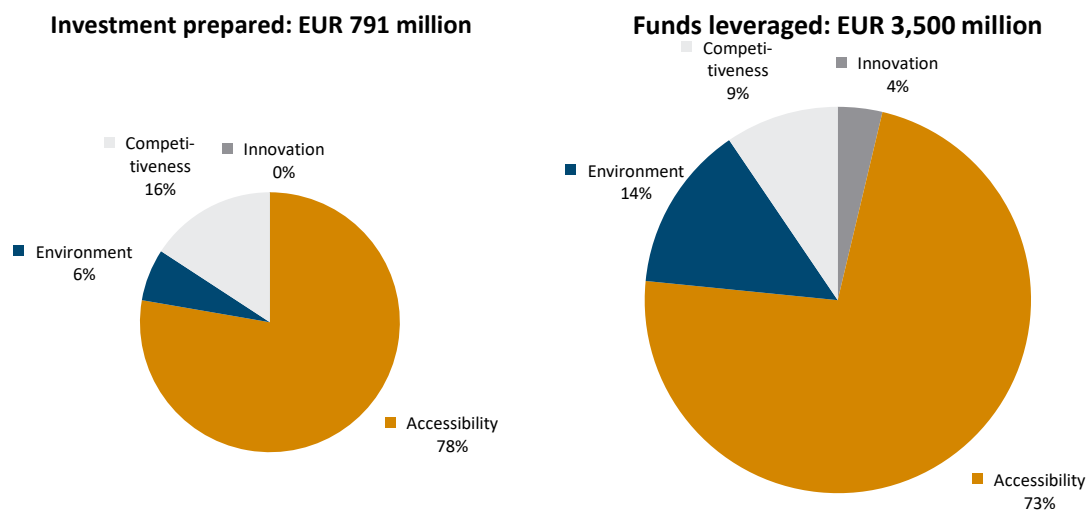
In total, the CE 2007-2013 Programme produced 3,682 outputs, i.e. around 30 outputs per project. The output type produced most was pilot actions, i.e. 952 pilot actions were implemented, followed by trainings (846), developed strategies (528) and developed tools (462); in addition 319 tools and 257 strategies were implemented, 267 cooperations initiated and 51 management structures created.

The high number of the CE projects' outputs mostly over-fulfilled initial expectations. The rates at which CE 2007-2013 Programme outputs exceeded their set targets varied between 10% (tools implemented) to 50% (trainings). Only the number of created co-operations and management structures remained below expectations. Programme authorities clarified that the lower achievement was due to beneficiaries' misunderstandings regarding the indicator definition for target setting in their projects application forms.

⁹ All numbers shown here refer to the final programme implementation report.

In addition, the CE 2007-2013 Programme was highly successful in preparing further investments and leveraging funds. In numbers, the CE 2007-2013 projects prepared investment worth EUR 791 million and leveraged funds worth over EUR 3.5 billion. The total sum of EUR 4.3 billion of prepared investments and leveraged funds was 2.3 times higher than the initial expectations. This was mainly due to the accessibility priority axis, which prepared investments of over 615 million and leveraged funds worth EUR 2.6 billion (see Figure 11).

Figure 11: Investment prepared and leveraged funds, CE 2007-2013 Programme



Source: MA/JS Interreg CE Programme.

In addition, pilot actions realised investments, too. However, those are not comparable to the investments prepared above, neither in their purpose nor in their amount. While in the above case investments were follow-up investments given the CE projects' results, pilot action investments were an integral part of the respective action, e.g. to showcase the benefits of energy efficiency measures etc. Usually, these were small-scale investments with a strong demonstration character. In total, CE 2007-2013 pilot actions realised investment worth around EUR 10 million, with more than 50% coming from the environment priority axis. Despite this relatively low number, it is noteworthy that the value added of these investments was not in their size, but in their purpose to provide opportunities for applying innovative solutions or for testing new tools and technologies

Regarding the number of jobs created by the CE 2007-2013 Programme, the results are mixed. In sum, the CE 2007-2013 Programme generated 1,870 new jobs of which around 50% came from the accessibility priority axis. The number of jobs created by the CE 2007-2013 Programme reached 80% of the initially planned employment. To interpret this, it is noteworthy that a) the CE 2007-2013 Programme operated in an economic environment marked by the negative effects of the economic and financial crisis and b) the recording of jobs created ceased with the end of the project, thus potentially neglecting jobs created afterwards.

Outreach

The analysis of the CE Programme's outreach is indicative of the projects' success to communicate their activities, outputs and results to their stakeholders and the wider public. The programme's outreach consists of two components: a) digital reach, measured by the number of unique visits to the projects' websites and b) physical reach, measured by the number of participants in project events.

The CE 2007-2013 Programme addressed in total more than 163 thousand entities, i.e. 1.3 times more than initially expected. The programme reached more than 75 thousand entities from the private sector, 42 thousand from the public sector, more than 20 thousand in R&D, as well as 15 thousand interest group entities and 10 thousand intermediaries.

All four priority axes showed a high capacity to address their target groups. Based on the innovation priority axis focus on building linkages between business, research and the public administration sector, it was highly successful in communicating with the enterprise/business sector (more than 36,000 entities), research/technology development and the public sector (more than 11,000 entities each) going well beyond its initial targets.

The accessibility priority axis managed to address all relevant stakeholders in its field, showing a good multi-level involvement of public and private sectors, service providers and research institutions. The projects in this priority axis reached 13,400 entities of the enterprise/business sector, 8,800 public sector bodies (187% of the target value) and more than 3,600 R&D entities (405% of the target value).

The environment priority axis addressed foremost the private (14,700 entities) and public sector (12,500) and to a lesser degree the research community, intermediaries or other interest groups. The competitiveness priority axis' projects also tended to focus on public and private entities (around 10 thousand), while communication with other types of stakeholders was comparatively low.

3.2. QUALITATIVE ASSESSMENT OF CE 2007-2013 RESULTS

Priority 1 – Facilitating innovation across Central Europe

Priority 1 of the CE 2007-2013 Programme contributed significantly to improving the framework conditions for innovation in the CE countries and regions. The in total 30 Priority 1 projects achieved their most relevant results through a variety of project activities and outputs. These included developing structures and tools for business support and technology transfer (e.g. the ACT CLEAN project built a database of good practices on clean production technologies for the use of SMEs in the CE region)

Other projects have tackled the topic of knowledge development by supporting human capital development in the education and research system as well as addressing brain drain and re-migration. This was done by developing transnational strategies and joint action plans like in the WOMEN project, by awareness raising events (dialogues, conferences etc.) for political stakeholders or by developing guidelines or handbooks (Re-Turn project).

Many CE projects created frameworks for policy learning processes (e.g. the IDEA and ClusterCOOP project). A major aspect of the CE projects' success in promoting innovation was their focus on capacity building (including policy learning and the sharing of existing tools, practices and mechanisms) as well as on the implementation of pilot actions. These allowed experimenting with new support measures and mechanisms. Many of the projects collected or developed a set of good practices, which offer a repository of pre-validated solutions, targeting existing and potential barriers to innovation for regional and local policies (e.g. SMART FRAME, INTRAMED C2C and CEBBIS projects).

A major element in capacity building was the organisation of **trainings and workshops** by the CE 2007-2013 projects, for example to reduce the shortage of innovation management skills or to support more complex and tailored activities such as funding schemes, mechanisms to foster cooperation between innovation actors, internationalization of innovation or countering the general lack of research capabilities (e.g. the project InnoTrain-IT provided training to over 1,000 transnational SMEs on IT Service Management).

Priority 2 – Improving accessibility of and within Central Europe

Priority 2 of the CE 2007-2013 Programme contributed to the improvement of the transport situations in the CE region. The 21 transport related projects focussed on four major issues, a) greenhouse gas emissions (GHG) and energy efficient transport, b) intelligent transport systems (ITS), c) Trans-European Transport Networks (TEN-T) and d) environmental qualities and transport emissions.

Projects supported the use of and access to ICT services in transport, promoted modal shifts in passenger and freight transport and implemented pilot actions to test new technologies or new planning approaches. Furthermore, they established CE cooperation structures for improving the access to European sea ports, linking trans-European transport corridors. Some projects participated successfully in the development of the TEN-T core network (like BATCo), thereby preparing future large scale infrastructure investments in the CE region.

Regarding GHG emissions, around half of the projects focussed on sustainable transport in urban areas, promoting a) non-motorised transport means like cycling a, or b) public transport. In addition, projects supported the use of clean vehicles, e.g. electric busses and cycling (BICY, GUTS, TROLLEY, and Central MeetBike). Three projects focussed on the improvement of multimodal freight transport chains (EMPIRIC, INWAPO and ChemLog),

As far as intelligent transport systems are concerned, two projects (CHAMPIONS and EDITS) promoted the use of ICT/ITS in passenger transport, while four projects (KASSETTS, LOGICAL, ChemLog T+T, ESSENCE) developed ICT/ITS applications for freight transport.

Concerning TEN-T networks, projects focussed on (intermodal) freight and passenger transport, the development of specific TEN-T axes (BATCo, SoNorA and Via Regia +), thereby preparing future large scale investments. Projects' activities also included co-operation and institution building or the promotion of multimodal transport (ChemLog, SoNorA, BATCo, FLAVIA, EMPIRIC and INWAPO). Furthermore, through feasibility studies and other preparatory work the projects helped to close infrastructure gaps, eliminate bottlenecks and improve the infrastructure quality or capacity (e.g. addressed in FLAVIA, SoNorA, INWAPO, and ChemLog).

Many of the aforementioned projects contributed to improving the quality of the environment and reducing transport emissions.

Priority 3 – Using our environment responsibly

CE projects in priority 3 contributed to two main goals, a) environmental protection, sustainability, resource efficiency and eco-innovation, and b) energy efficiency. The 42 environmental projects developed and adopted common strategies and action plans for environmental protection (focussing on biodiversity, water, soil and air) and the reduction of risks and the mitigation of impacts of natural and man-made hazards, including climate change. In addition, projects were focussed on the implementation of pilot actions in the field of waste management (e.g. TransWaste), resource efficiency, eco-innovation and cleaner production (e.g. ACT CLEAN).

Amongst other tools, projects developed transnational action plans and pilot actions to address waste issues (waste collection, re-use of waste, cleaner production like in the projects EcoPaperLoop and CERREC). Other projects developed high end tools for climate change adaption, like the INCA-CE that established a state-of-the-art, high-resolution, real-time analysis and forecast system on atmospheric, hydrological and surface conditions. A number of projects focussed on air pollution while others addressed soil protection and land use as well as water management and flood protection

Regarding energy, projects implemented activities for improving the energy efficiency of buildings (e.g. the EnSURE project), developing of regional energy action plans (e.g. the CombinES project) and exploiting renewable energy sources (e.g. the 4BIOMASS project). Thereby, projects created viable policy toolkits for both energy efficiency and renewable energies, covering the tools and actions needed for benchmarking, strategy setting and the provision of ongoing financial and political support. Furthermore, the projects produced a high number of regional energy concepts and strategies promoting renewable energies and demonstrations to raise awareness and secure political buy-in and investment.

Priority 4 – Enhancing competitiveness and attractiveness of cities and regions

In total 31 Priority 4 projects addressed a wide range of issues such as polycentric development, improved urban and regional cooperation as well as establishing and improving governance structures. They also covered territorial issues like the ageing of society to enhance the attractiveness and competitiveness of the CE regions. Some projects contributed to increase the number of elderly involved in the labour market or to build up entrepreneurial skills and employment opportunities for local vulnerable groups. Two examples are the CE-Ageing Platform and the Senior Capital project.

Additionally, many projects rediscovered and upgraded creative or cultural resources while others supported the revitalisation or reuse of brownfield sites thus contributing to the economic development of the CE regions. For example, CrossCulTour contributed to increasing the attractiveness of cultural heritage sites in its partner regions, by introducing visitor guidance systems and ICT solutions to make cultural sites more easily accessible. Likewise the ReSOURCE project focused on improving the competitiveness and attractiveness of former mining regions by collecting best-practice examples and developing guidelines

Many project activities included developing, identifying and disseminating good practices and tools. These served as a basis for strategies, implementation plans and pilot actions. The latter were used to test, or improve or develop various types of services. A number of projects actively created strong regional networks and permanent management structures. A good example for this is the CENTROPE CAPACITY project that established permanent, high-quality joint management structures for political, administrative and operational issues concerning the Austrian, Czech, Hungarian and Slovak border regions.

With their activities, the projects contributed “*significantly to making shrinking regions more attractive, especially through matching local skills with business needs and retaining competences for regional growth. In addition attention is given to adapting services for the younger generations and the ageing society.*”¹⁰

3.3. INPUTS AND PRIORITIES OF THE INTERREG CE PROGRAMME 2014-2020

The total ERDF funds available for the Interreg CE Programme are slightly more than EUR 231 million, which are distributed across four priority axes, i.e.:

1. Cooperating on innovation to make CENTRAL EUROPE more competitive (Innovation) – EUR 69 million. or 28% of total ERDF contributions,
2. Cooperating on low-carbon strategies in CENTRAL EUROPE (Low carbon) – EUR 44 million. or 18% of total ERDF contributions,
3. Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE (Natural and cultural resources) – EUR 89 million. or 36% of total ERDF contributions,
4. Cooperating on transport to better connect CENTRAL EUROPE (Transport) – EUR 30 million. or 12% of total ERDF contributions,

Additionally, technical assistance (priority axis 5) is supported with around EUR 15 million or 6% of the total ERDF contributions.

At present time, i.e. after the second call for projects, the Interreg CE Programme is supports 85 projects with ERDF funds of around EUR 160 million. Thereof, 33 projects are funded in the “Natural and cultural resources” priority axis (EUR 63 million), 25 in the “Innovation” axis (EUR 45 million), 18 projects in the “Low carbon” axis (EUR 34 million) and 9 projects in the “Transport” axis (EUR 17 million).

The highest number of project partners after two calls is recorded in Italy (158), Poland (118), Slovenia and Germany (111 each). The number of project partners in the Czech Republic, Austria, Croatia and Hungary ranges from 85 to 94, only Slovakia has significant lower project participation, i.e. 41 partners.

Projects under Priority 1 (innovation) focus on: a) the improvement of sustainable linkages among actors of the innovation systems for strengthening regional innovation capacity and b) improving skills and entrepreneurial competences for advancing economic and social innovation in central European regions.

¹⁰ PAU, 2014, Demographic change and knowledge development in the CENTRAL EUROPE Programme.

Priority 2 (low-carbon) projects focus on a) developing and implementing solutions for increasing energy efficiency and renewable energy usage in public infrastructures, b) improving territorially based low-carbon energy planning strategies and policies supporting climate change mitigation and c) improving capacities for mobility planning in functional urban areas to lower CO₂ emissions

Priority 3 (natural and cultural resources) projects focus on a) improving integrated environmental management capacities for the protection and sustainable use of natural heritage and resources, b) improving capacities for the sustainable use of cultural heritage and resources and c) c environmental management of functional urban areas to make them more liveable places.

Priority 4 (transport) projects focus on a) improving planning and coordination of regional passenger transport systems for better connections to national and European transport networks and b) improving coordination among freight transport stakeholders for increasing multimodal environmentally-friendly freight solutions.

3.4. SURVEY OF CE 2007-2013 BENEFICIARIES

A questionnaire was sent to more than 1,100 beneficiaries involved in CE 2007-2013 projects. The survey was designed to provide answers to the questions regarding a) the sustainability of CE 2007-2013 projects beyond their lifetime, b) the long term effects of the projects, c) the stakeholders benefitting from those effects, d) the reasons for the effects as well as e) potential effects for the project partners themselves. In total 84 responses were received, resulting in a response rate of around 7.5%. The responses covered 60 out of the total 124 CE 2007-2013 projects (48%), so that the survey can be considered moderately representative. The analysis of the questionnaire's answers shows the following stylised facts.

- The overall impact of the CE 2007-2013 Programme was considered as positive. Half of the respondents considered the projects' impacts as either high or even very high, while for 45% of respondents the impact was medium. Only 5% of the respondents judged the impact of their project as low.
- The most important outputs of the CE 2007-2013 projects were those that had some impact on policy making, e.g. through a) the demonstration effect of pilot actions, b) direction attention to certain problems by awareness raising events or c) the creation of documents providing guidelines for actual policy making.
- As far as the economic effects are concerned, CE 2007-2013 projects led to technology transfer and/or supported of innovation in more than half (i.e. 57%) of the CE regions covered by survey participants. Forty percent of the survey respondents stated that projects stimulated investments. 25 percent of the respondents noticed employment creation, and 20% productivity increases because of CE projects.
- Many projects had a high impact at the institutional level. Eighty percent of the respondents answered that their CE 2007-2013 project to established a lasting network of institutions. CE 2007-2013 projects also led to a high number of further co-operations as reported by 77% of respondents as well as to a significant improvement of institutional capacities for almost 70% of the respondents.

- On the governance side, CE 2007-2013 projects improved the know-how and capacities of local or regional policy makers, as stated by around 80% of the respondents. Furthermore, 45% of the respondents reported that the projects led to improved policy processes in their territories. In addition, according to the survey respondents CE projects led to new management structures in 22% of the territories and in 10% of the cases to changes in legislation.
- As far as the durability of the projects' outputs and results are concerned, around 90% of the respondents stated that the CE 2007-2013 project effects were visible at least 1 year after the projects' lifetimes. Even more, around half of the respondents experienced positive long run effects of the projects, i.e. effects lasted up to four or more years after the end of the project.
- The main group of stakeholders affected by CE projects were from the public sector according to the opinion of the survey respondents (87%). CE projects were also important in influencing the general public, the research community (universities, colleges, research institutions, RTD facilities, research clusters), and the private sector (businesses, SMEs).
- Institutional cooperation continued beyond the life cycle of the project in the majority of cases (70% of responses), and new cooperation opportunities opened up because of the CE project (60 % of responses).

The survey illustrates that the CE 2007-2013 projects had a positive impact on their territories, both in a governance and institutional and many times in an economic context. Their high sustainability and visibility going well beyond the projects' lifetimes multiplies the value of these effects. Even more, the results also show that cooperation did not stop at the end of the projects, but rather that the CE 2007-2013 Programme lead to further and new co-operations, thus providing a substantial leverage to TNC in the CE region.

3.5. CASE STUDIES

The study covered 12 selected CE 2007-2013 project case studies. The main results and impacts of the projects were:

Priority 1 - Innovation

PROINCOR enabled 385 SMEs to develop their own innovation path. 200 companies improved their innovation management systems and 87 companies their products and processes. More than EUR 32 million of private and public funds was leveraged. The project contributed to promoting innovation and transfer of technology between public R&D sector and SMEs. Important synergies between different stakeholders, such as local administrations, national agencies, universities, chambers of commerce etc. emerged.

I3SME developed an online software platform for benchmarking analysis in order to assess and improve innovation performance of SMEs and micro enterprises. In total 852 SMEs were supported and 13 pilot actions implemented. Furthermore, EUR 17 million of private funds was leveraged and used for investment into new plants, machinery and equipment, launching new products and processes, and upgrading human resources. Around 284 jobs were created as a result of these investments.

i.e. SMART built a network to boost entrepreneurship among youth, especially in emerging sectors of the economy such as Green Economy and ICT. The project set up nine “SMART Points” that offered fully-fledged services, exchange of training, experience and ideas to entrepreneurs at the transnational level. With that the i.e. SMART project generated a paradigm shift by overcoming “thinking in terms of national/regional competitiveness in order to strive for a more competitive and innovative Central Europe area as a whole”.

Priority 2 - Transport

BATCo was set up as a TNC project to support the inclusion of the Baltic-Adriatic corridor to the TEN-T core network by providing technical and scientific analysis based policy recommendations to regional, national and European decision makers. BATCO evidence provided valuable arguments to justify large-scale railway infrastructure already under construction or planning. Based on BATCo results several policy documents such as the Austrian national transport master plan or the Moravian-Silesian Region transport master plan have been updated. Most importantly, BATCo contributed to the European decision making process supporting the inclusion of the Baltic-Adriatic Axis to the TEN-T Core network. Through this, BATCo helped secure approx. EUR 26 billion for infrastructure investment in the Baltic-Adriatic Corridor for the period 2014-2020.

TROLLEY aimed to improve urban mobility and to protect the environment via finding environmentally sustainable engine systems for trolleybuses and defining common concepts for the conversion of old trolleybus networks. TROLLEY pilot investments enabled testing of new energy saving storage types for trolleybuses and developing concepts for the conversion of old trolleybus technologies. Moreover, investments into a battery system for Europe's first Trolley-Hybrid-Bus in Eberswalde were realised. Through its activities, the project contributed to EU policy and put trolleybus public transport on the political agenda.

Priority 3 – Environment and energy

REURIS aimed at initiating and implementing strategies and activities to reconstruct natural and cultural resources and manage urban river spaces. The major tasks were to a) find a holistic approach to the process of planning, designing and realizing revitalization, b) improve public access to open space along rivers, and c) to take into account recreational needs, tourism, cultural heritage aspects and simultaneously upgrading flood protection and storm water management. As a result, five pilot revitalisation actions were implemented in Katowice, Bydgoszcz, Stuttgart, Brno and Plzen. Public participation in the revitalisation process and the possibility of a multifunctional utilisation of redeveloped river valleys proved to be a good way to increase the cohesion of the local and regional communities. Additionally, the results of the REURIS project were incorporated into local development plans and programmes. In Stuttgart, Leipzig and Bydgoszcz already existing informal plans at the local and regional level were updated

LABEL aimed at improving flood risk management and tools for the river Elbe and the neighbouring river basins. The project provided flood hazard and risk maps for the entire Elbe to inform stakeholders and the public about the flood hazards and risks in the Elbe catchment. Additionally, 18 regional public authorities adopted harmonized flood risk management systems, existing retention areas were checked for their protection status and new areas were identified for future development of flood retention. In the

context of navigability and flood management, new solutions for transport systems (public transport and inland navigation) in the Orlik region were adopted. Finally, a pilot action in Chodouny-Lounky prepared further investment for flood protection measures.

MANERGY focussed on energy planning in CE and on the reduction of GHG emissions at the municipal level. The project elaborated 19 local energy action plans and thus assisted the energy planning of 34 settlements across six CE countries with a combined population of 429 thousand inhabitants. Most importantly, the project laid prepared energy efficiency and renewable energy investments worth EUR 166 million.

CEC5 aimed at elaborating a single tool that sets the appropriate standards for low-energy buildings, and to support their construction in the CE countries. The project developed the tool CESBA (Common European Sustainable Building Assessment) that provides methods to assess (public) buildings during the entire cycle of their operation: from planning, design and construction through the use and impact on the environment. The project resulted in seven pilot investments in seven different CE countries, with a total investment volume of EUR 14.3 million. Since in five cases, the pilot investments via CEC5 were part of bigger energy-related interventions, it was possible on top of the CEC5 budget to leverage funds to the tune of around EUR 12.1 million. Overall the project's most important legacy is the change in attitude of public decision-makers regarding the construction of public buildings (e.g. all new public buildings in the City of Ludwigsburg should be constructed as 'near zero energy buildings').

Priority 4 – Competitiveness

SECOND CHANCE developed sustainable concepts for the revitalisation of brownfield areas. Pilot investments into brownfield revitalisation of old industrial sites created lively cultural locations in the five project partner cities. This allowed improving the locations' quality and subsequently their attractiveness as well as competitiveness. Commonly conceived and conducted marketing activities attracted the interest of private investors and sponsors. Additional private and public funding allowed to undertake further investments and to expand the project's sites.

COBRA MAN focussed on the rehabilitation of brownfield sites by providing municipalities guidance on how to effectively manage and rehabilitate such sites. The project created a brownfield manager professional profile, prepared courses about brownfield management for universities and offered technical support and expertise to cities. COBRAMAN leveraged further investments of around EUR 171 million for the rehabilitation of post-industrial areas such as in the cities of Stuttgart or Most.

ReNewTown aimed at finding new ways to improve the lives of people living in post-Socialist urban spaces in CE. The project sought to involve local citizens in a bottom-up approach in order to achieve tangible and sustainable results. ReNewTown realised four pilot actions in Poland, the Czech Republic, Slovenia and Slovakia, created jobs for local people, compiled a large body of documents and databases for the use of local policymakers and organised seminars to exchange experiences and promote good practice examples. The project achieved the regeneration of many urban spaces and provided a way to engage with and learn from the Socialist past, as well as to create a new and more positive form of local identity.

4. Value added of the Interreg CE programme

The added value brought by TNC to the EU Cohesion policy is well recognised, and includes a) the reduction of regional disparities b) the building of trust across borders c) the support of macro-regional strategies, d) the increase in territorial cohesion, e) the more efficient use of limited resources, as, f) the tackling of cross-border challenges, g) the improvement of public services, h) being an innovative catalyst that triggers further public and private investment and i) the improvement of policy making.

The added value of the Interreg CE Programme goes beyond this. Located as it is at the site of the former Iron Curtain, the programme has an important integrating function. For most parts, this function still includes bringing together countries, regions and people from two different ideological systems. Although the differences in the systems disappeared some time ago, their effects and backlashes are still felt as economic and social differences. Despite significant economic progress, the perceived slow progress in overcoming these differences over the past decades (in combination with the recent refugee crisis) is likely to be one reason for the increase in EU-sceptic and nationalistic trends on both sides of the former Iron Curtain

Importantly, the Interreg CE Programme area covers the **industrial core** of the EU. By supporting cooperation of the EU industrial core countries, especially in the areas of innovation, skills and entrepreneurship, the Interreg CE Programme does more than just increase the competitiveness of the respective countries. Given the importance of the industrial core for the whole EU (e.g. in terms of global competitiveness, as well as in the generation of effective demand), the CE Programme's benefits stretch across its programme area and affect the EU as a whole. Furthermore, by supporting innovation, transport, energy, environment, and cultural heritage the Interreg CE Programme contributes to the **sustainability** of the industrial core in special and to sustainability in the CE countries in general.

Overall, the Interreg CE Programme contributes to economic, social and territorial cohesion of the CE countries. Additionally, trans-national cooperation in the CE territory - by linking CE businesses, people and especially public administrations at the local, regional and national level - , focusses on solving common problems and makes CE cooperation more resistant to changes in the overall political environment. Therefore, in a way, the Interreg CE Programme not only supports economic, social and territorial cohesion but implicitly also political cohesion.

Recommendations for the fourth call

As the selection process for Interreg CE projects from the third call is ongoing it is difficult to provide recommendations regarding a potential thematic focus of the fourth call for project proposals. An interesting strategy for the forth call could be to maximise the Programme's impact by focussing on existing project results, for example from first and second call projects, and leverage them in terms of extending them to other CE regions, extend them in terms of their scope, or scale them up or down from a policy point of view, i.e. transfer them from the local to the regional or even national level or vice versa.

This requires an evaluation of current Interreg CE project results, with respect to their effects and their applicability to a wider set of regions. To illustrate, the BIOCMPACK-CE project promotes stronger linkages between R&D institutions and companies to introduce verified biodegradable materials in paper and cardboard packaging. This project consortium consists of research institutes, private companies, a chamber of commerce and a regional development agency. Provided the project shows good results, it could be used as an example project for the fourth call, which could try to bring the project's aim to a higher policy level, by especially addressing local or even national policy makers or other relevant institutions.

Furthermore, based on the analysis, three more general recommendations can be given that may contribute to increase the projects' impacts.

- First, to ensure long run sustainability of the projects political buy-in is key. Past projects with long run effects inter alia contributed to increase capacities of the public sector and/or to improve policy processes. Thereby, pilot actions, with their demonstration effect, awareness raising events as well as the formulation of policy documents showed to be most successful in securing political buy-in.
- Second, long run and positive side effects were also achieved on an institutional level, through the continuation of co-operation between partners after a project's lifetime or through the creation of new co-operations. This needs to be supported or continued to be supported in a future CE programme.
- Third, if it is for increasing economic effects, projects with the aim to leverage or prepare investments, induce innovation or include the transfer of technology have shown to yield better effects than other projects.

Outlook and recommendations for a post-2020 Interreg CE Programme

As far as a post-2020 CE Programme is concerned, three issues are worth considering.

- The CE Programme's area covers the industrial core of the EU. This could be used to create an 'identity' for a future CE Programme, also guiding its future focus. Notably, covering the industrial core also provides a unique function to the programme area, making it a highly important – if not indeed the most important – functional region within the EU. Its industrial development is a key factor for the global competitiveness (and hence the political influence) of the EU. Moreover, there are positive economic spill overs to all other EU countries, e.g. through the creation of demand. Supporting the development of the CE region and improving further its economic functionality should therefore be a guiding principle of a future CE Programme.
- The CE Programme brings together countries from both sides of the former Iron Curtain. This has economic, social, territorial as well as political implications. Despite major progress, economic and social differences between 'Eastern' and 'Western' CE countries are still pronounced. The previous and the current programme show that a CE Programme contributes strongly to overall EU cohesion policy in terms of economic and social development. There is no doubt that a future CE Programme will continue to do so.
- The CE Programme not only connects the East with the West, but importantly also the North and the South of Europe. In a literal sense, the CE territory connects the Scandinavian and

Baltic countries with Southern Italy as well as the Western and Eastern Balkan countries. In a figurative sense it does much more than this. Besides linking the economically more prosperous countries in the North with less prosperous countries in the South (corresponding to the East-West divide), it also provides a cultural bridge all the way from Scandinavia to the Mediterranean Sea as well as for all four EU Macro-regional strategies.

Based on these points it can be concluded that CE is a highly functional area with a special role in the EU. This differentiates the CE territory from other regions in Europe. Its role and functional relationships are not only based on the geographic proximity of countries or the sharing of common challenges. Much more it is the strength and number of interactions and linkages between a) economics and business (e.g. trade and investment linkages), b) administrations and the political sphere (e.g. Visegrád group, Centrope) and c) people (cultural and historical ties) in the CE territory that give it a special place in the EU.

Correspondingly, the main strength of the CE Programme is its ability to support territorial cohesion and integration within its geographic boundaries but in a unique way for TNC programmes also across its borders. This becomes ever more important as EU scepticism and disagreement with fundamental European values increase. Because of this, a future CE Programme needs to be highly aware of its potential to strengthen territorial and political cohesion, and needs to make it a foundation of its work. In this respect, it is advantageous that the CE Programme covers all the countries along the former Iron Curtain.

With the potential focus on a) being the industrial core of the EU, b) promoting economic, social and territorial cohesion along the former Iron Curtain and c) connecting Europe from North to South and from East to West the CE Programme fits well into the post 2020 Cohesion policy architecture as outlined in the recent proposals for the Common provisions¹¹, ERDF¹² and European territorial cooperation¹³ regulations. To illustrate, the CE Programme's focus allows covering directly or indirectly all 5 policy objectives for the Structural funds outlined in Article 4(1) of the common provisions proposal. Thus, the 'smarter Europe' objective overlaps strongly with the potential focus on being the industrial core, as supporting the industrial core requires a) strengthening research capacities and employing advanced technologies, b) reap the benefits of digitisation, c) enhance the competitiveness of SMEs and d) develop the necessary skills to support these processes.

Likewise, the CE Programme's ability to connect Europe directly relates to the 'more connected Europe' policy objective, which supports a) digital connectivity b) inter and intraregional connectivity through investment in the TEN-T network and in the access to this network and c) sustainable urban mobility. All points are not only common challenges to the CE countries but also have been already addressed by the past and current Interreg CE programme. In this respect the future Cohesion policy architecture would enable the CE Programme to continue its role of connecting Europe.

¹¹ EU Commission (2018), Proposal for a regulation of the European parliament and of the Council laying down common provisions, COM(2018) 375 final.

¹² EU Commission (2018), Proposal for a regulation of the European parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund, COM(2018) 372 final.

¹³ EU Commission (2018e), Proposal for a regulation of the European parliament and of the Council on specific provisions for the European territorial cooperation goal (Interreg) supported by the European Regional Development Fund and external financing instruments, COM(2018) 374 final

As far as the other three policy objectives, a) 'greener, low carbon Europe, b) 'more social Europe' and c) 'Europe close to citizens' are concerned, they too already have been covered by the past and current Interreg CE programmes. Thereby, the necessary thematic concentration¹⁴ of a future programme could mean that not all three objectives can be supported directly, thus requiring to choose one of them as priority. Given the analysis of challenges and results of the CE programme, it is recommended that the focus is set on the 'greener, low carbon Europe' objective as it is not only one of the most fundamental challenges but also has some economic potential (e.g. through the development of new technologies). The 'more social Europe' and the 'Europe close to citizens' will be covered as horizontal issue. On the one hand, economic progress in the CE territory will relieve pressure on the social side, while on the other hand it is an inherent feature of the CE Programme to bring people closer together,

Therefore the three cornerstones – i.e. the function as the EU's 'industrial core', the programme's importance in promoting territorial and political cohesion in the EU and its role in connecting EU countries from North to South and East to West – could be fundamental to the development of a post-2020 CE Programme. Hence improving the programme's area function as a core region for industry and political cohesion could provide the programme with an overarching aim that future projects could focus on, whether explicitly or implicitly.

¹⁴ Article 15 in the proposal for the European territorial cooperation regulation



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