



European
Funds
Technical Assistance



MINISTRY
OF ECONOMIC
DEVELOPMENT

European Union
Cohesion Fund



How do EU-15 Member States Benefit from the Cohesion Policy in the V4?

Report prepared within the *Ex post evaluation and forecast of benefits to EU-15 countries as a result of Cohesion Policy implementation in V4 countries*, commissioned by Polish Ministry of Economic Development.

imapp

. | :
i b s

*This study is co-financed by the Cohesion Fund
under Operational Programme Technical Assistance 2014-2020.*

coordination:

Andrzej Regulski

authors:

Piotr Bartkiewicz
Anna Matejczuk
Henryk Kalinowski
Magdalena Ośka
Andrzej Regulski
Julian Zawistowski

cooperation:

Marek Antosiewicz
Marcin Buliński
Krzysztof Czauderna
Beata Dombi
Janos Dombi
Jan Frankowski
Marek Jagielski
Kamil Patynowski

imapp

ul. Rejtana 15/25
02-516 Warszawa
imapp@imapp.pl
www.imapp.pl

Institute for Structural Research
(Instytut Badań Strukturalnych)

ul. Rejtana 15/28
02-516 Warszawa, Polska
ibs@ibs.org.pl
www.ibs.org.pl

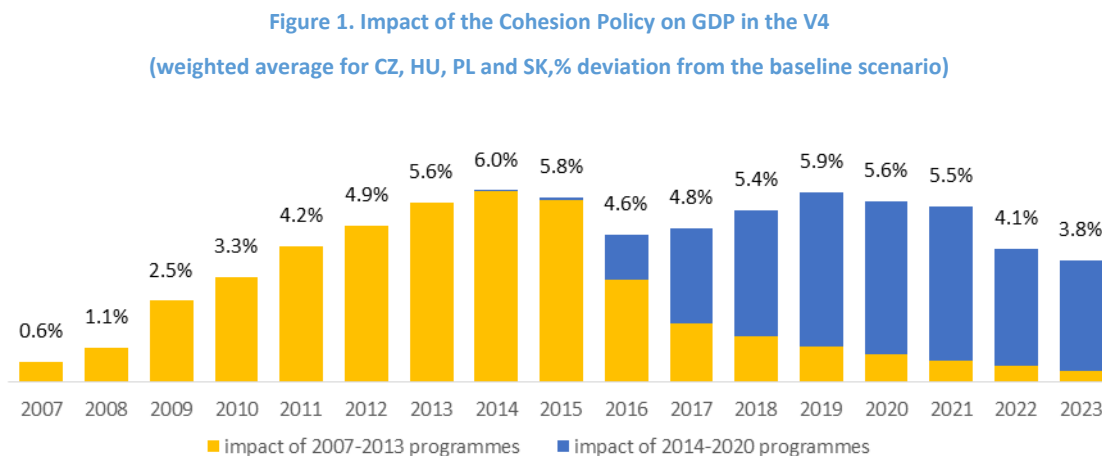
imapp

. | :
i b s

Executive summary

A clear focus on least developed countries and regions remains a key feature of the Cohesion Policy despite shifts in the political agenda and enlargements of the European Union to include more member states. A range of empirical and macroeconomic studies confirm that EU-funded interventions translate into accelerated social and economic change. Meanwhile, the Cohesion Policy has recently become a major source of funding for the Europe 2020 strategy. Consequently, apart from stimulating convergence, interventions should also contribute to attaining the development objectives across the EU in innovation, employment, social inclusion and transition to low-carbon economy.

On average, the total annual value of programmes implemented within the Cohesion Policy in the Czech Republic, Hungary, Poland and Slovakia amounted to 1.8% of GDP since 2007. This scale of interventions is set to continue into 2020. Over the past three financial perspectives, all four Visegrad Group (V4) countries have reported dynamic social and economic transformation, which largely helped to bridge the development gap between those countries and the EU average. This is attributable to many factors such as the global benefits of having open borders, participating in the single market or the inflow of foreign direct investments. However, **the social and economic change in the Czech Republic, Hungary, Poland and Slovakia is also largely due to the impact of operational programmes funded under the Cohesion Policy.**



Source: Own elaboration.

According to simulations of the model applied in this evaluation, the macroeconomic impulse resulting from structural funds and Cohesion Fund made the level of GDP in V4 countries higher by almost 6% by the end of 2015. Therefore, convergence with the EU has been much faster than in the baseline scenario. Numerous evaluations also confirm tangible impacts of the Cohesion Policy in areas such as increased innovation, positive labour market developments, higher transport accessibility, improved environmental protection and enhanced energy efficiency. Despite many challenges, it is clear that EU-funded programmes in V4 countries have achieved most of their objectives.

While supported with domestic public and private funding, **the unprecedented scale of growth-related investments in V4 countries would not have been possible without the contribution from structural funds and the Cohesion Fund made up** largely of payments by the EU-15 into the EU budget. Their contribution to funding Cohesion Policy implementation in the Czech Republic, Hungary, Poland and Slovakia is estimated at EUR 120 bn in the 2007-2013 programming period. However, **the spending is offset by economic benefits and other positive externalities, which make the Cohesion Policy in its current form beneficial both to support beneficiaries and to the member states which co-finance the interventions.**

Economic benefits to the EU-15¹

Primarily, the report focuses on **benefits to the EU-15 resulting from the general macroeconomic impact of the Cohesion Policy on V4 economies.** The interventions co-financed by EU structural funds and the Cohesion Fund stimulate aggregate domestic demand, thus increasing GDP. This, in turn, translates into additional external inflows of consumer products and services (i.e. those sold to final consumers) and investment goods and services (i.e. used as inputs in the production process) mainly from the EU-15. Hence, this type of benefits drawn by the EU-15, referred to as **indirect export benefits**, covers exports to the V4 induced by the macroeconomic impact of Cohesion Policy interventions, less the direct involvement of EU-15-based companies in the implementation of projects. **Indirect export benefits are estimated at EUR 76.9 bn in 2007-2015, or 80% of total economic benefits.**

The geographic mix of indirect export benefits is a consequence of the overall structure of international trade of V4 economies. For the most part, these benefits go to main V4 trade partners: Germany, Austria, Italy, the Netherlands and France. Additional exports of goods are chiefly in semi-advanced technologies such as electrical machinery and equipment, while additional exports of services are mainly in construction works.

Secondly, the report discusses the benefits enjoyed by companies which are either **based in the EU-15** or are **owned by EU-15-based capital groups**, and which are **directly involved in implementing Cohesion Policy co-financed projects in V4 countries.** Benefits of this type may be related e.g. to technical equipment or software supplies to beneficiaries of EU-funded grants or executing construction works in transport and environmental projects. The total value of tenders awarded to both types of companies was ca. EUR 56 bn in 2007-2015, but this also includes local employee and subcontractor remuneration. With this factored in, **the actual benefits to EU-15 based companies from their direct involvement as**

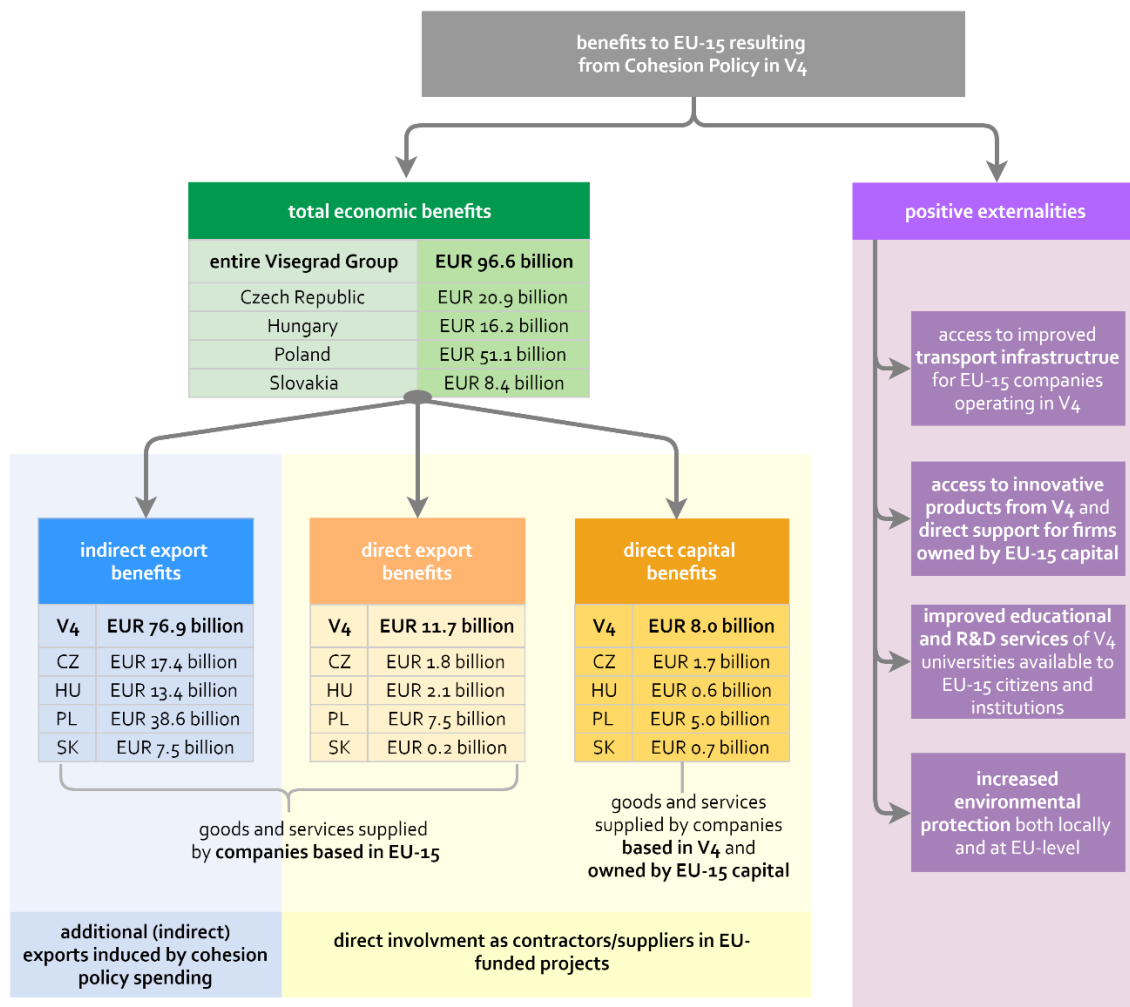
¹ All values are expressed in constant 2010 prices.

contractors or suppliers are said to stand at EUR 19.7 bn (20% of total economic benefits). These can be divided into two subcategories:

- **direct export benefits (EUR 11.7 bn, 12% of total economic benefits)**, i.e. benefits resulting from contracts awarded to EU-15-based companies;
- **direct capital benefits (EUR 8.0 bn, 8% of total economic benefits)**, i.e. those flowing from contracts awarded to local V4 companies held by EU-15-based capital groups.

Direct benefits to the EU-15 reside chiefly in supplying construction services to large infrastructural projects and electrical machinery and transport equipment supplies. The brunt of direct capital- and export benefits goes to Germany (mainly in electrical machinery and transport equipment supplies), Spain (construction services, mostly in Poland), Austria (electrical machinery, construction services), France (construction services, transport equipment) and Italy (construction services, electrical machinery).

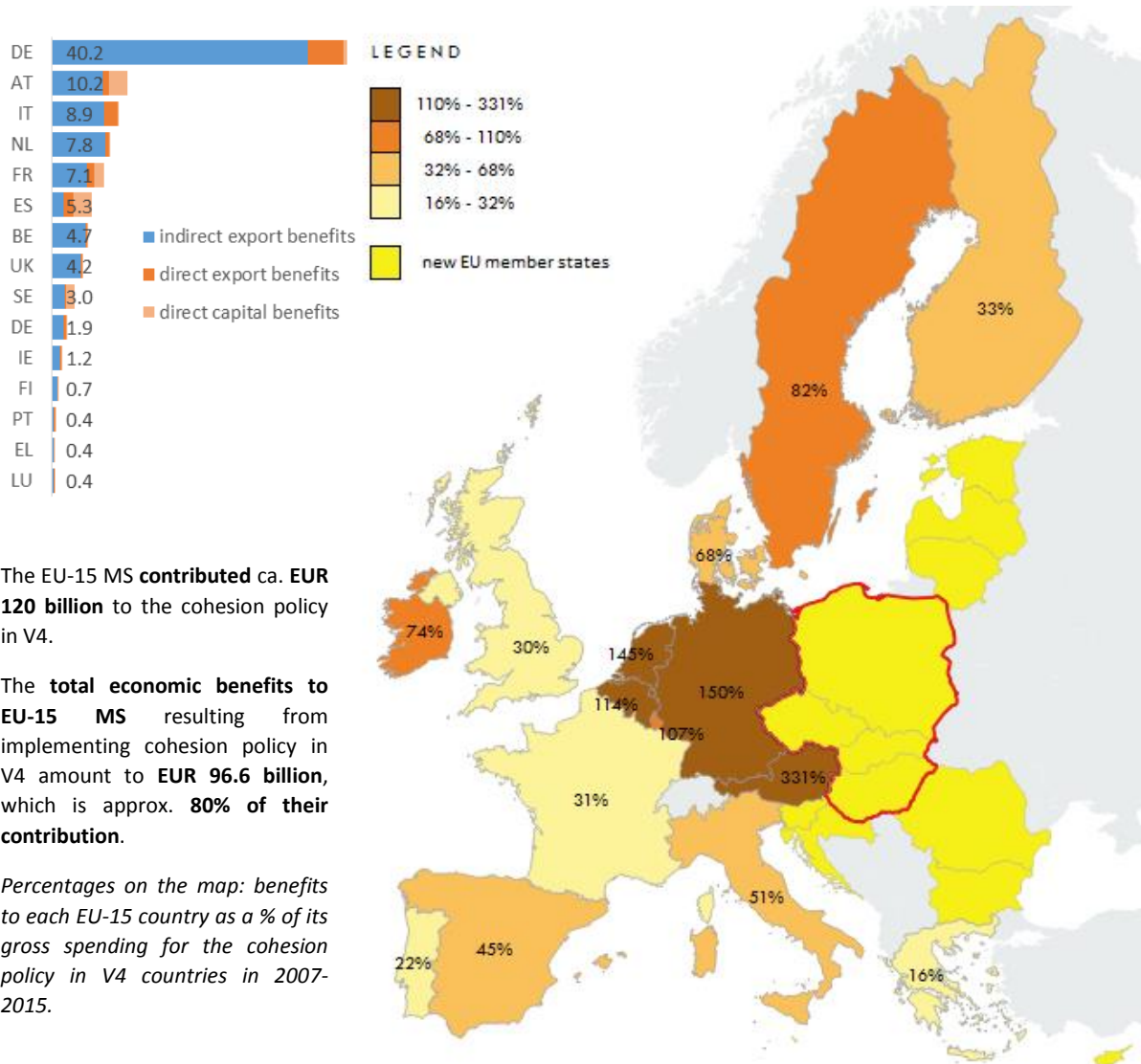
Figure 2. Summary of benefits to the EU-15 (2007-2013 programming period)



Source: Own elaboration.

When combined, indirect and direct export benefits and direct capital benefits **to the EU-15** point to estimated **total economic benefits of ca. EUR 97 bn from implementing the Cohesion Policy in the V4 in 2007-2015**. Over this period, the EU-15 contributed ca. EUR 120 bn gross to the Cohesion Policy. Thus, **the additional export- and capital benefits added to ca. 80% of the spending**. The benefits are expected to continue under the existing profile until the end of the 2014-2020 financial perspective, and will grow moderately in volume as the 2014-2020 spending coincides with the supply-side effects of the 2007-2013 interventions.

Figure 3. Total economic benefits to the EU-15 in relation to gross contribution to Cohesion Policy implementation in the V4 in 2007-2013 programming period (EUR bn,%)



The EU-15 MS **contributed ca. EUR 120 billion** to the cohesion policy in V4.

The **total economic benefits to EU-15 MS** resulting from implementing cohesion policy in V4 amount to **EUR 96.6 billion**, which is approx. **80% of their contribution**.

Percentages on the map: benefits to each EU-15 country as a % of its gross spending for the cohesion policy in V4 countries in 2007-2015.

Source: Own elaboration.

Table 1. Summary of benefits to the EU-15 (2007-2013 programming period)

	Czech Republic	Hungary	Poland	Slovakia	V4
total benefits	20 906.27	16 170.14	51 088.55	8 406.79	96 571.75
indirect export benefits	17 356.97	13 420.73	38 622.85	7 478.01	76 878.57
direct export benefits	1 822.82	2 103.62	7 501.33	228.85	11 656.62
direct capital benefits	1 726.48	645.79	4 964.37	699.93	8 036.57
total benefits	100%	100%	100%	100%	100%
indirect export benefits	83%	83%	76%	89%	80%
direct export benefits	9%	13%	15%	3%	12%
direct capital benefits	8%	4%	10%	8%	8%
total benefits by EU-15 (EUR mn)					
AT	2 423.89	3 285.77	3 127.42	1 402.30	10 239.38
BE	696.76	1 015.88	2 457.68	568.70	4 739.03
DE	10 236.23	6 147.17	20 680.97	3 174.38	40 238.75
DK	147.30	308.50	1 331.46	73.72	1 860.98
EL	59.57	34.68	285.88	22.40	402.54
ES	527.91	326.39	4 176.19	316.08	5 346.58
FI	77.14	74.16	527.87	28.40	707.57
FR	1 463.04	1 219.28	3 651.82	811.60	7 145.75
IE	234.11	307.87	638.51	34.35	1 214.84
IT	1 119.77	1 622.14	5 201.24	956.63	8 899.78
LU	83.29	49.03	164.56	62.79	359.67
NL	1 947.03	838.04	4 423.91	590.08	7 799.06
PT	105.65	68.87	234.36	16.15	425.02
SE	879.15	210.96	1 864.31	82.34	3 036.77
UK	905.43	661.40	2 322.36	266.85	4 156.05
total benefits by EU-15 MS					
AT	11.6%	20.3%	6.1%	16.7%	10.6%
BE	3.3%	6.3%	4.8%	6.8%	4.9%
DE	49.0%	38.0%	40.5%	37.8%	41.7%
DK	0.7%	1.9%	2.6%	0.9%	1.9%
EL	0.3%	0.2%	0.6%	0.3%	0.4%
ES	2.5%	2.0%	8.2%	3.8%	5.5%
FI	0.4%	0.5%	1.0%	0.3%	0.7%
FR	7.0%	7.5%	7.1%	9.7%	7.4%
IE	1.1%	1.9%	1.2%	0.4%	1.3%
IT	5.4%	10.0%	10.2%	11.4%	9.2%
LU	0.4%	0.3%	0.3%	0.7%	0.4%
NL	9.3%	5.2%	8.7%	7.0%	8.1%
PT	0.5%	0.4%	0.5%	0.2%	0.4%
SE	4.2%	1.3%	3.6%	1.0%	3.1%
UK	4.3%	4.1%	4.5%	3.2%	4.3%

Source: Own elaboration.

Positive externalities

Positive externalities are defined as benefits that an entity (i.e. EU-15 individuals or institutions) may draw from a public intervention co-financed within the Cohesion Policy in the V4, even though the intervention was not initially addressed to the entity in question. Many case studies presented here prove that the Cohesion Policy in its current form is beneficial both to support beneficiaries in the Czech Republic, Hungary, Poland and Slovakia and to the member states co-financing the intervention.

The first type of positive externalities is due to relatively high spending on fostering **entrepreneurship and innovation** in the V4. Some of the benefits stemmed from earlier direct investments made by the EU-15: companies with a majority equity stake held by EU-15-based capital groups applied directly for funding in operational programmes that were later rolled out in the Czech Republic, Hungary, Poland and Slovakia. As estimated, they received ca. 15% of the allocations. Entrepreneurship and innovation projects also made it possible mainly for German, Austrian and Italian technology vendors to sell to buyers interested for instance in state-of-the-art production lines which were unavailable domestically. The report stresses that exporters of goods and services to the EU-15 had a large share in the population of support beneficiaries. Since most compete in export markets both on price and quality, product innovations developed with the support of EU structural funds are also available to customers in the EU-15. Moreover, new and improved products developed thanks to EU funds affect the daily lives of Europeans across the EU.

The biggest share of Cohesion Policy funding was spent on developing **transport infrastructure** across the V4. Benefits of such investments to the EU-15 stem not only from direct participation in construction works, as discussed above, but mainly from improving spatial cohesion and access to transport in what previously were peripheral EU regions. Importantly, in this context many bottlenecks in trans-European transport networks were cleared thanks to Cohesion Policy grants. While the impact of the investments is visible mainly in the V4, logistics service providers with their majority stake held by EU-15-based enterprises also benefit substantially such investments. Moreover, other than benefiting from expanding existing transport infrastructure, they also draw from schemes which help them develop their own infrastructure. In a broader perspective, the impact of infrastructure investments yields benefits to all EU companies that are present in Central and Eastern European markets thanks to the reduced cost and time of shipping goods. Also, new and upgraded transport infrastructure is beneficial also to all people who can travel across Europe faster, more easily and safely.

Universities have been successful in effectively applying for Cohesion Policy aid in the V4. The report lists some projects designed to expand the teaching provision. Clearly, such projects were put in place mainly for the sake of Czech, Hungarian, Polish and Slovak students. Evaluations indicate that substantial progress has been made in this respect. Yet, some universities described in this report prove that enhanced teaching and learning potential has also pulled in EU-15 students, who benefit from support available for infrastructure and soft projects via student exchanges and BA, MA and PhD programmes in the V4. Universities and research centres in the Czech Republic, Hungary, Poland and Slovakia have also received substantial funding to expand their research potential. This has spawned closer scientific collaboration with EU-15 centres in common advanced research in areas which improve the lives of Europeans (such as medical sciences).

Investments in **environmental protection** have been an important part of interventions programmed and financed by the Cohesion Policy in the V4. By definition, they were designed mainly to solve local problems such as air pollution, and consequently the principal beneficiaries were people living in the Czech Republic, Hungary, Poland and Slovakia. Yet, the examples quoted in the report clearly demonstrate that better air and water quality also benefits EU-15 populations. The Cohesion Policy has also allowed the V4 to finance many investment projects in the energy sector. These largely contribute to EU energy Policy as they boost energy security across the EU and help to reduce energy consumption and emissions.

Table 2. Summary of case studies described in the report

type of intervention	project/group of projects	location	impact in V4	positive externalities (EU-15 perspective)
innovation and entrepreneurship	support for Continental Automotive Czech Republic s.r.o. (group of projects)	Czech Republic	development of R&D infrastructure in the Czech Republic, including creation of new high quality jobs	increased capital stock of the Czech subsidiary of the German Continental corporation, access to relatively less expensive research and expert HR.
	investment support for Grupa Kęty S.A.	Poland	development of the company's production infrastructure, setting up an R&D centre	development of new manufacturing technologies thus allowing the company to supply to leading transport equipment manufacturers in EU-15
	product innovations in Chirana Medical a.s	Slovakia	research in diagnostics, monitoring and control of artificial lung ventilation used in intensive therapy and anaesthesiology	development of AUTOLungs, an innovative system reducing mortality in most acute cases and facilitating surgery in previously un-operable older patients due to high risk of cardiovascular damage.
	product innovations in Digiterm	Hungary	expanding the company's infrastructure (shop floor, R&D) to develop and manufacture innovative medical equipment	development of Dia Care, an innovative dialysis chair exported to the EU-15, with smart control systems and electronic solutions improving the patients' comfort, the safety and effectiveness of procedures, and the work of medical personnel.
universities and research institutes	development of the curriculum of multi-department media studies – French language at the University of Nitra	Slovakia	new accredited university curriculum with an online platform for specific courses	bilateral student exchange and development of curricula with a double diploma in Slovak and French, plus joint research
	expanding the offer and teaching resources of the	Poland	new Department facility with state-of-the-art teaching, R&D	joint research with EU-15 researchers, access to PhD programmes for candidates from

type of intervention	project/group of projects	location	impact in V4	positive externalities (EU-15 perspective)
	Physics Department of the University of Warsaw (group of projects)		infrastructure, more attractive PhD programmes: an international PhD programme in English	EU-15
	support for research – Central Institute of Technology in Brno	Czech Republic	setting up a R&D centre combining research in life sciences, advanced materials and technologies	co-operation with EU-15 companies and research institutions to develop new technologies, access to research infrastructure including biotechnology
	expanding the teaching offer – University of Debrecen	Hungary	additional research potential: initiated research of 118 research teams	research in co-operation with EU-15 research centres, researchers and companies; more attractive programmes for EU-15 students
transport infrastructure	development of Gdynia Port infrastructure (group of projects)	Poland	developing and improving the competitiveness of one Poland's main sea ports	additional capacity, part of the TEN-T Baltic-Adriatic corridor creating conditions for addressing the offer to EU-15 logistic companies and ship owners who use the port in Gdynia
	reconstruction of the Old Bridge in Bratislava	Slovakia	enhancing Bratislava's transport infrastructure (putting the bridge on the Danube back in use)	unblocking a bottleneck in inland waterways in the TEN-T Rhine-Danube corridor, fostering the environment to improve the competitiveness of alternative freight modes
	development of warehouse infrastructure of ATI DEPO	Hungary	improved competitiveness of Hungary's logistics sector	improved competitiveness (direct support and access to Cohesion Fund-supported transport infrastructure) of a subsidiary of UK-based INTERAG Holding
	intermodal terminal infrastructure of METRANS	Czech Republic	improved competitiveness of the logistics sector and stronger market position of a leading Czech logistics enterprise	improved competitiveness of the subsidiary of the German Hamburger Hafen und Logistik AG group. Support for a project to implement HHLA's growth and expansion strategy.
environmental protection	reduced emissions of the Dolna Odra Power Plant	Poland	reduced emissions and improved air quality via reducing SO ₂ and NO _x emissions from	reduced emissions and improved air quality in the EU-15, mainly eastern lands of Germany

type of intervention	project/group of projects	location	impact in V4	positive externalities (EU-15 perspective)
			combustion	
	development of waste water treatment infrastructure in the Czech Republic	Czech Republic	reduced emissions to surface and groundwater, fulfilment of accession obligations, improved quality and standard of living	reduced emissions and improved water quality of the Elbe (in Germany) and its delta (North Sea)
	landfill rehabilitation – municipality of Kúty	Slovakia	improved environmental conditions and reduced risk of groundwater pollution in the municipality of Kúty and its environs	elimination of a source of potential surface and groundwater pollution in Austria's border regions