Round Table of public policies based on Input-Output approaches

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Input-Output for policy making

- AUTOMOTIVE SECTOR
- COAL TRANSITION
- GLOBAL VALUE CHAINS
- TRADE AND JOBS
- CARBON FOOTPRINT
- INDUSTRIAL POLICY

European Commission

Automotive sector

- The automotive industry in the EU is leader in transformation and innovation, accounting for the **7% of EU GDP**, with almost **14 million workers** that depend directly or indirectly of the industry an with **large connections with other sectors** (auxiliary, raw materials, etc...).
- **Automotive Regions Alliance (ARA)** is an initiative of the **European Committee of the Regions (58 NUTS2 regions).** Are their regions dependent one of each other or is it that their main source of generating Value Added comes from other areas? **CARMEN** can give us an answer.

Abruzzo | Andalusia | Auvergne-Rhône-Alpes | Centre-Val de Loire | Emilia-Romagna | Galicia | North Rhine-Westphalia | Piedmont | Saarland

Baden-Württemberg | Basilicata | Basque Country | Gobierno de Aragón | Grand-Est | Kosice Self-governing Region | Saxony | Saxony-Anhalt | Styria

Bavaria | Bourgogne-Franche-Comté | Bratislava Region | Lombardy | Lower Saxony | Mazowieckie Voivodeship | Thuringen | Trnava Region | Tuscany

Brittany | Castile and León | Catalonia | Molise | Moravian-Silesian Region | Navarre | Umbria | Valencia | Veneto

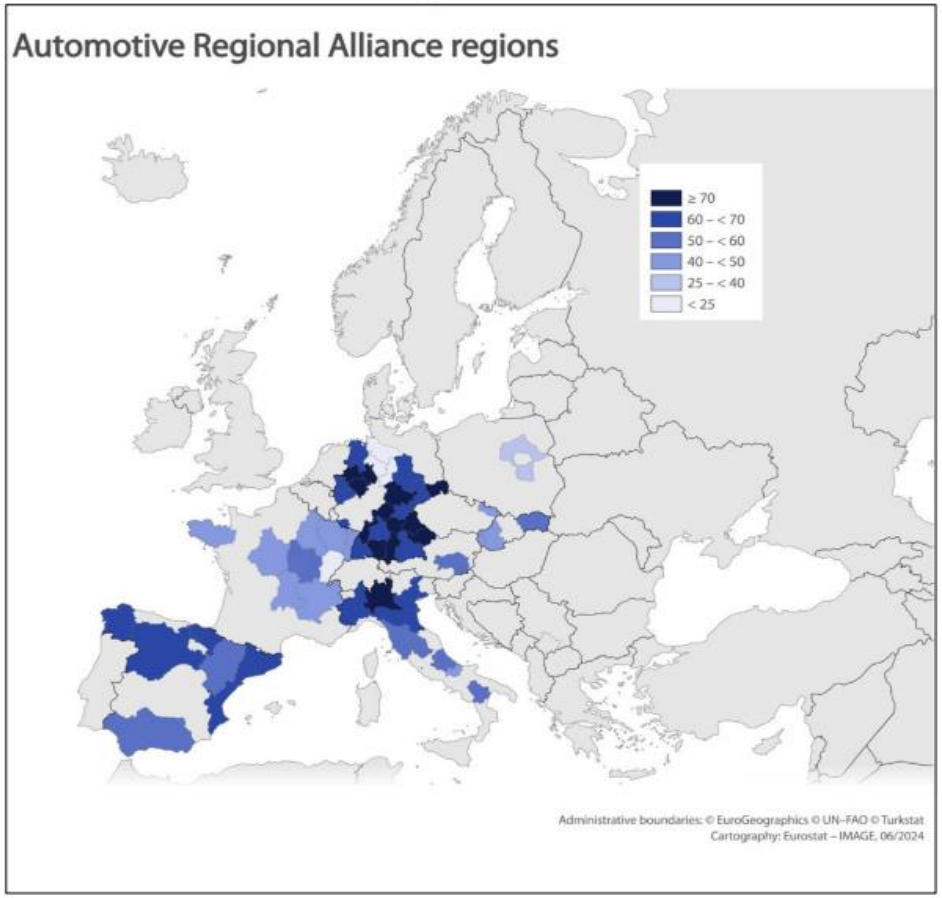
AUTOMOTIVE REGIONS ALLIANCE

an initiative of European Committee of the Regions

European Commission

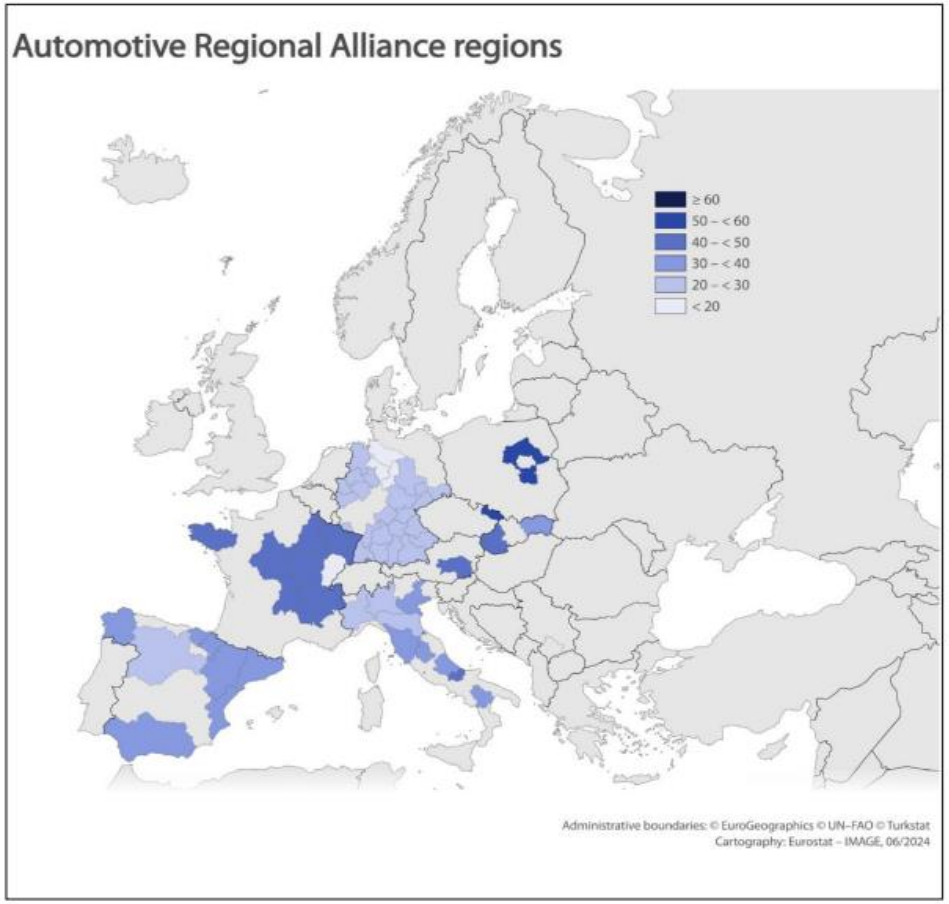
Automotive sector

Intraregional effect



VA generated in ARA regions: **66%**

Interregional effect



VA generated in non-ARA regions: **34%**

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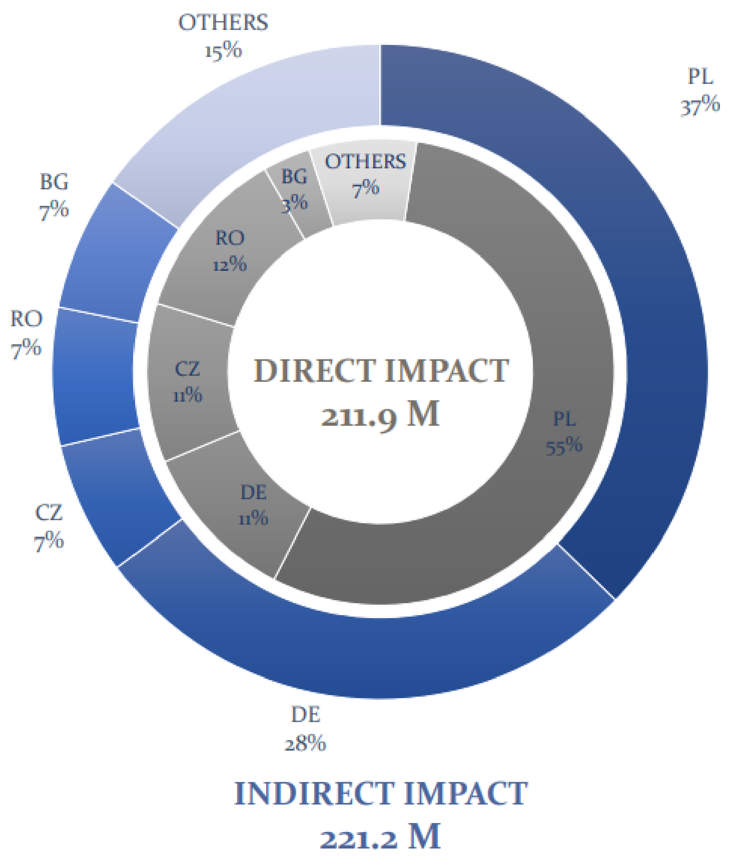
Coal transition

Impact on employment by region

A computation of the *ex-ante* **impact on employment** of industries' total disruption it is possible using **CARMEN**.

Total employment at risk



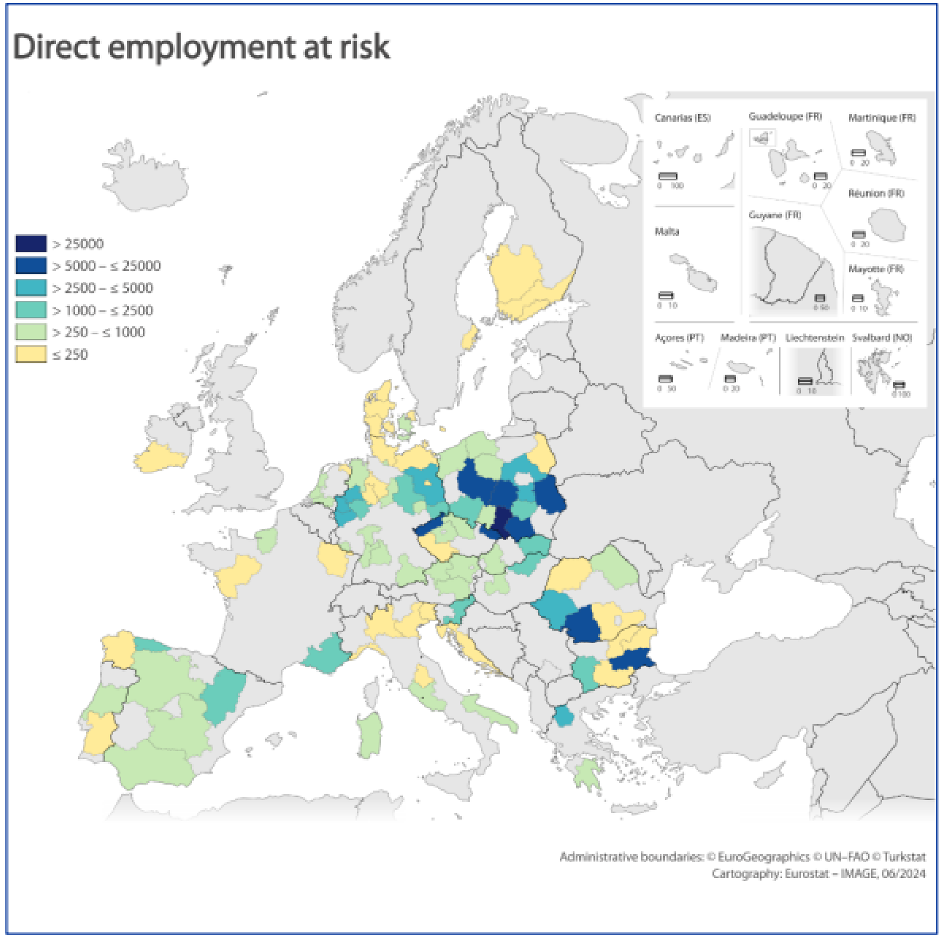
Top 20 regions with more employment at risk

NUTS2		Direct	Indirect	Total	Area
PL22	Śląskie	74,057	15,494	89,551	PL
RO41	Sud-Vest Oltenia	21,323	4,404	25,727	RO
PL41	Wielkopolskie	6,763	11,348	18,111	PL
PL71	Łódzkie	10,197	7,628	17,825	PL
PL21	Małopolskie	7,567	9,571	17,137	PL
CZ04	Severozápad	12,173	2,908	15,081	CZ
PL81	Lubelskie	9,563	3,907	13,470	PL
CZ08	Moravskoslezsko	9,609	3,325	12,934	CZ
DEA1	Düsseldorf	3,414	8,455	11,869	DE
DEA2	Köln	3,865	7,195	11,060	DE
PL51	Dolnośląskie	2,250	8,548	10,798	PL
PL92	Mazowiecki regionalny	2,596	6,850	9,446	PL
BG34	Yugoiztochen	5,402	2,810	8,211	BG
BG41	Yugozapaden	1,257	6,636	7,894	BG
DEA3	Münster	4,738	2,725	7,463	DE
RO42	Vest	3,395	2,610	6,005	RO
PL63	Pomorskie	273	5,662	5,935	PL
DEA5	Arnsberg	1,177	4,135	5,312	DE
PL61	Kujawsko-pomorskie	284	4,357	4,641	PL
DE21	Oberbayern	693	3,749	4,442	DE

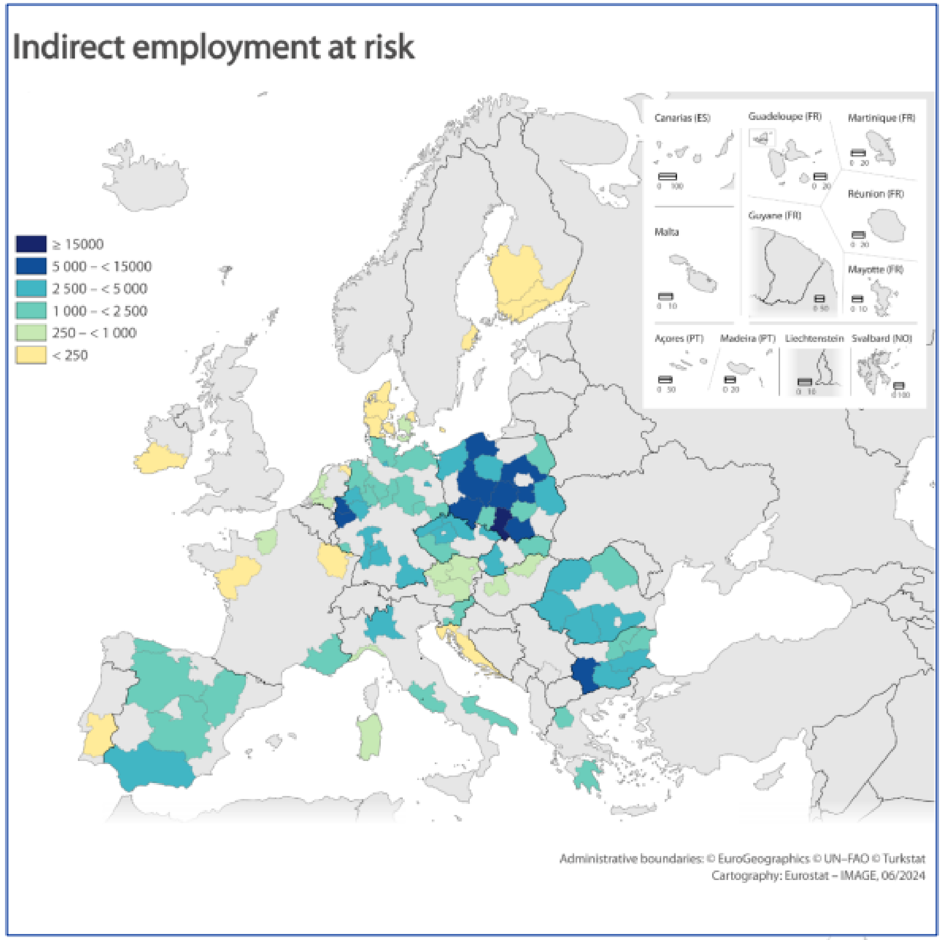
- Poland employs about half of the coal workforce. It is the most impacted on direct, indirect employment and by regions involved, followed by the Czech Republic, Romania, Germany, Bulgaria, Greece and Spain.
- Concentration of the effect in just a few countries: East European countries and Germany.

Coal transition

Coal mining + coal fired power plants



Rest of economic activities

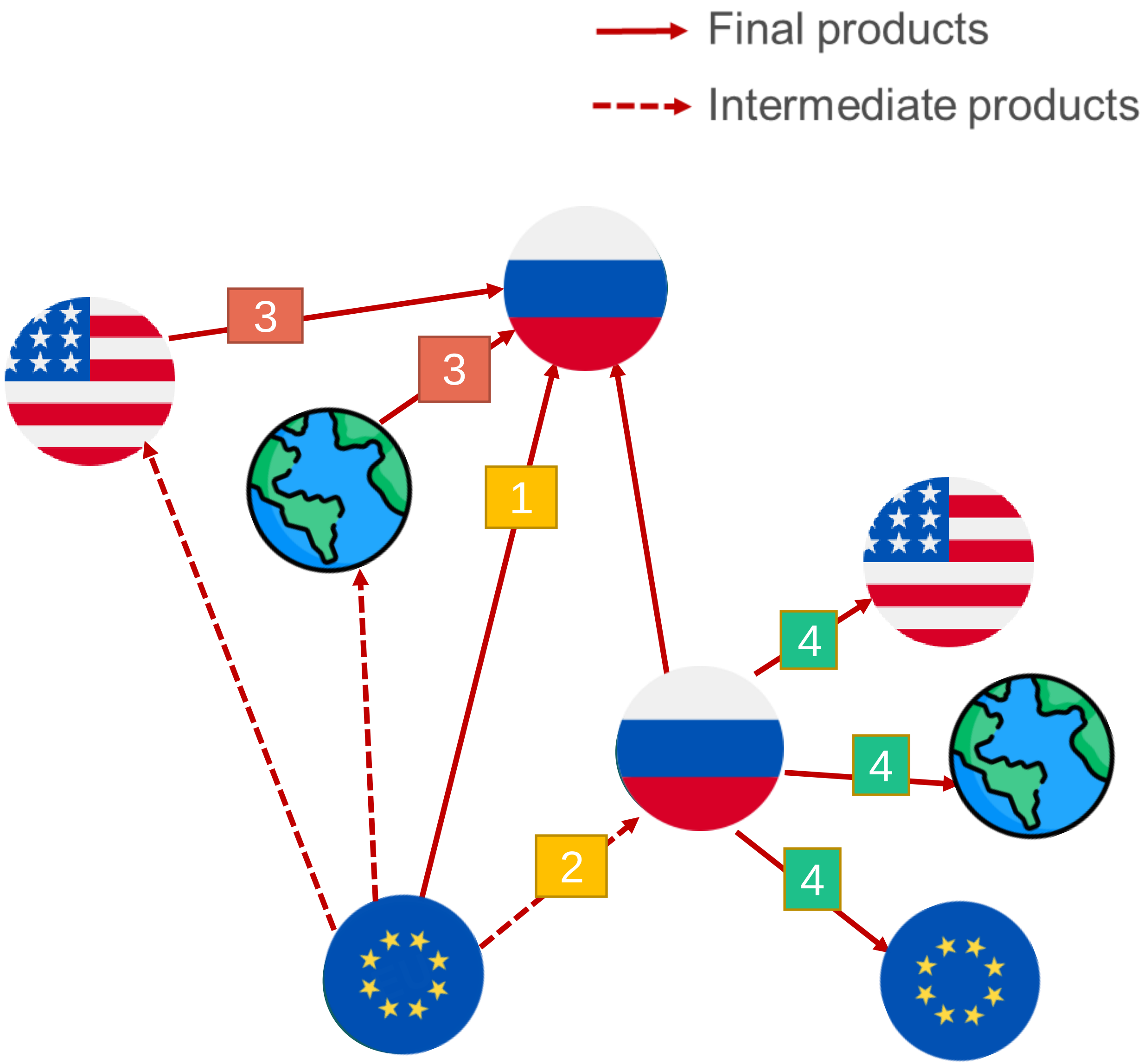


European Commission

GVC indicators

Exposure indicators

1. Domestic Value Added in **Foreign Final Demand**
2. Records the EU value added supported by (Russian) **foreign final demand**
3. *Adds the* **value added supported by third countries' final demand via Russia**



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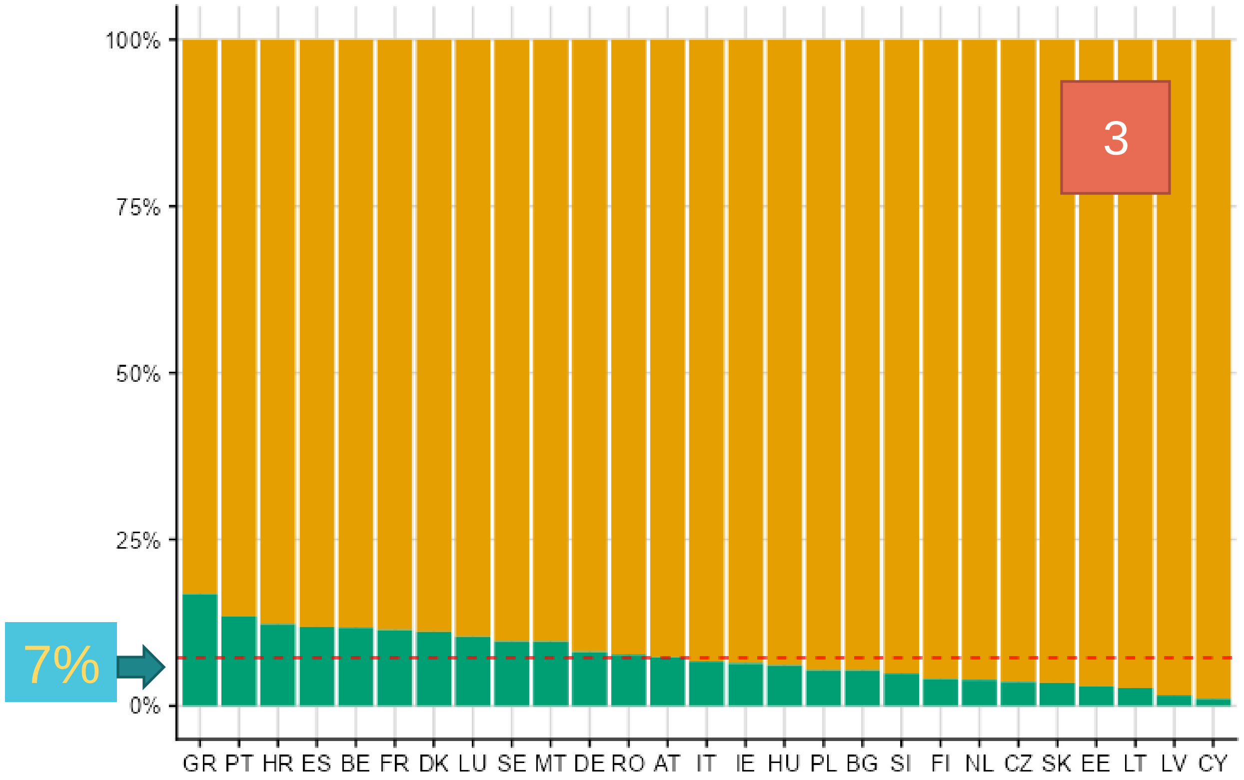
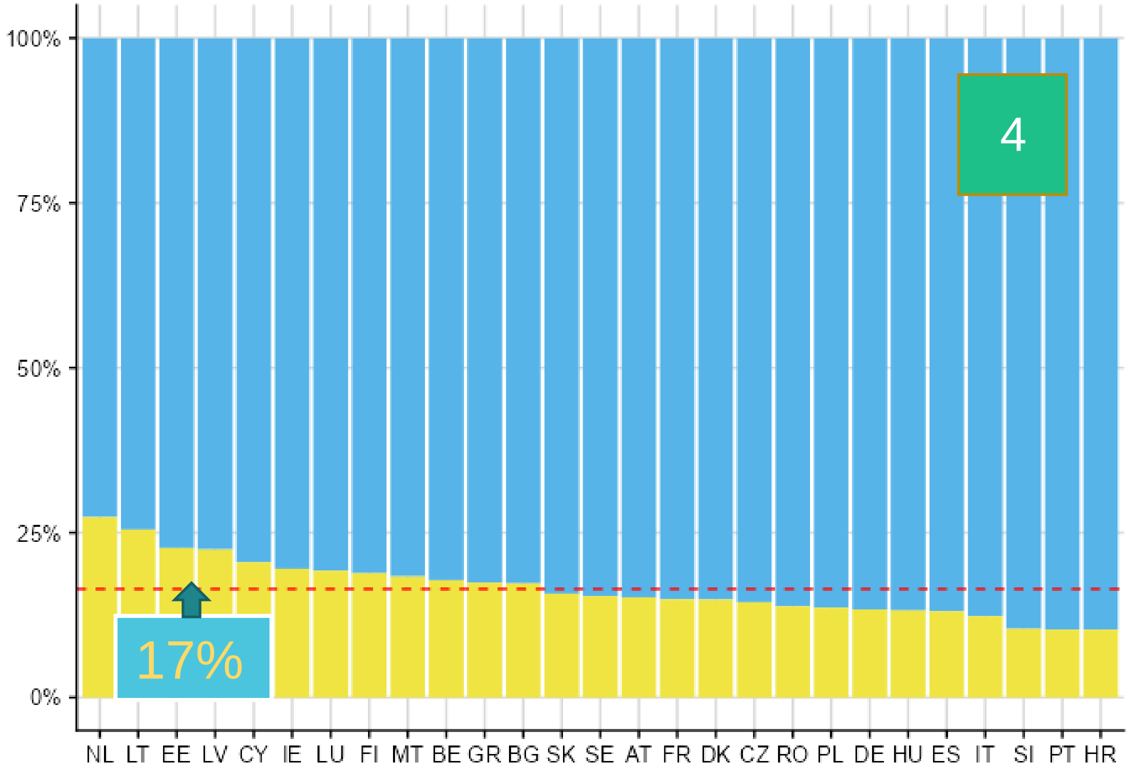
Results by Member States



Share (%) of EXGR_DVUL due to EU exports to third countries ending up in Russia's final demand

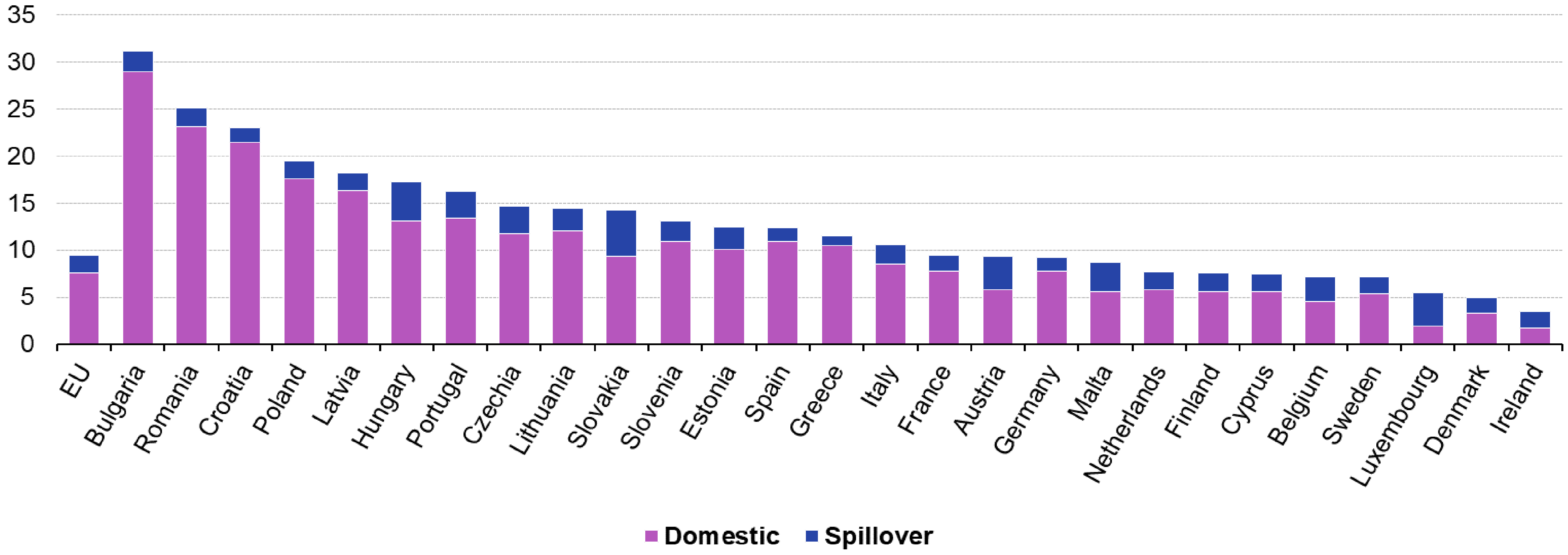


Share (%) of FFD_DVUL due to foreign final demand of third countries, via Russia

European Commission

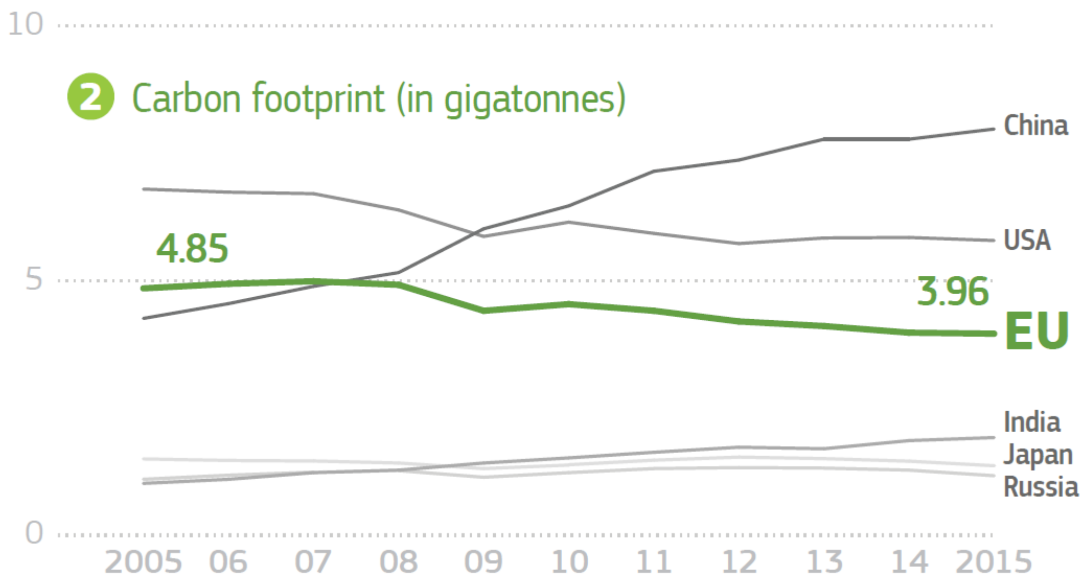
Employment supported in the EU by exports of each EU Member State to non-EU countries, 2022

(number of employed people by € million exported by the EU Member State)

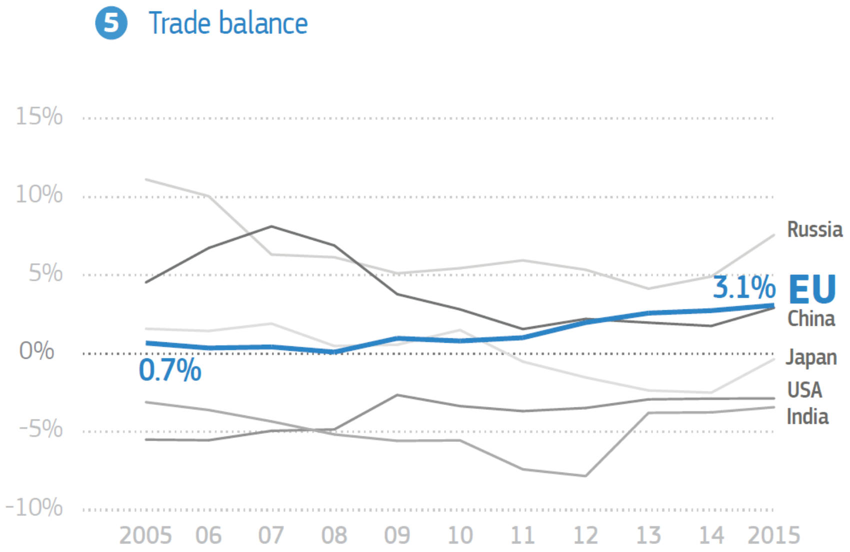


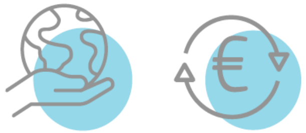
Note: Countries are ranked by decreased order of employment supported by their exports.
Reading note: In 2022, 627 thousands employed people in the EU were supported by Bulgarian exports to non-EU countries. Each million euro exported by Bulgaria to non-EU countries supported 31 employed people in the EU. Out of these 31, 29 were located in Bulgaria (domestic effect) while 2 were located in another EU Member State (spillover effect).

Source: Eurostat (online data codes: nama_10_A64_e, naio_10_faex)

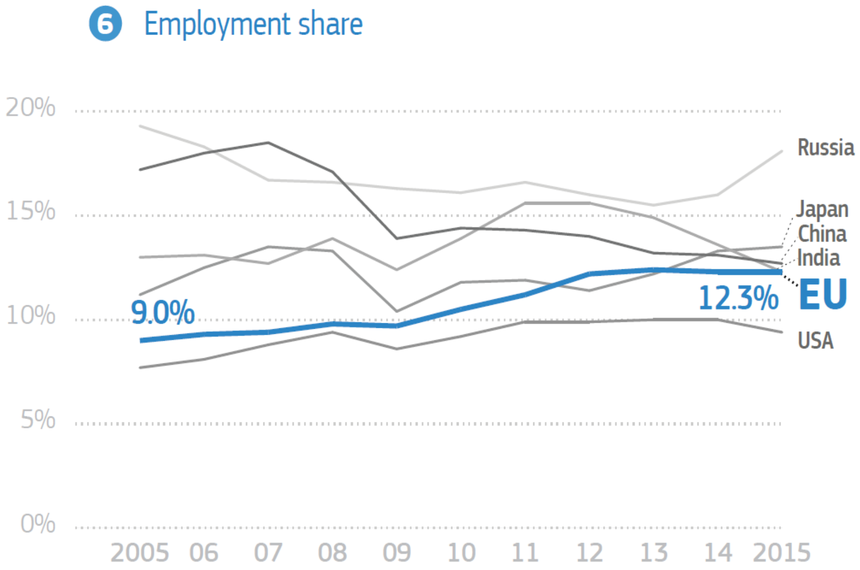


The **EU** is also the world region whose demand has generated the biggest cut in its carbon footprint from 2005 to 2015 (18%)

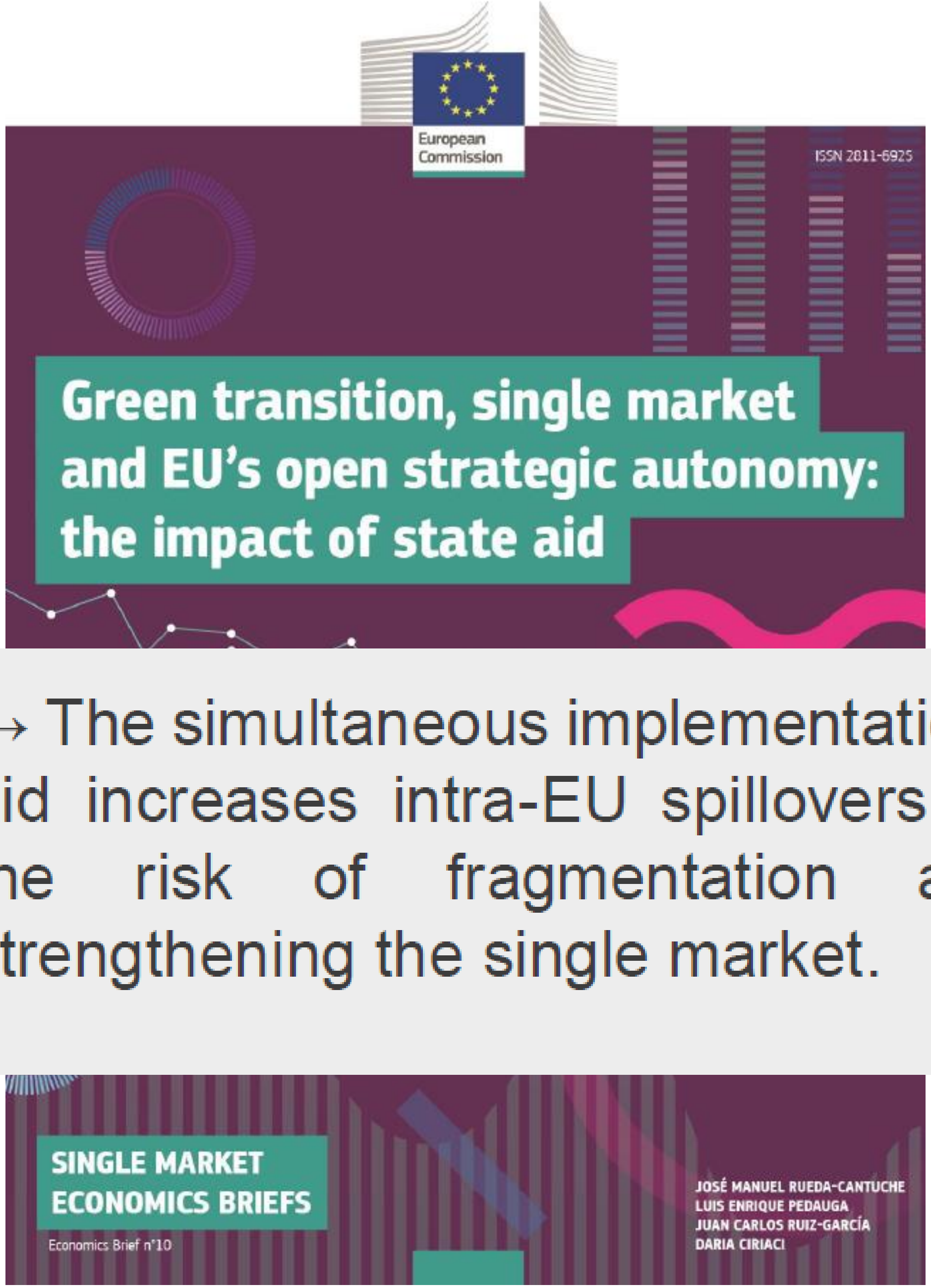




The **EU** is the world region that increased its trade balance share the most over the GDP during 2005-2015



The **EU** is the world region that increased its employment share linked to export activities the most during 2005-2015 (9% to 12.3%)



→ The simultaneous implementation of state aid increases intra-EU spillovers, reducing the risk of fragmentation and thus strengthening the single market.

Table 2 – Economic impact of different state aid scenarios over 10 years, by region and industry

	A. State Aid (mill €)				
	Germany	**Italy**	**France**	**Simult.**	
State aid (mill €)	10,232	4,379	3,561	18,172	
	B. Economic Impact (mill €)				
	Scenarios				Extra-
Regions/Industries	**Germany**	**Italy**	**France**	**Simult.**	gains (%)
All industries					
EU27	**18,305**	**9,117**	**6,051**	**33,828**	**1.1%**
Germany	15,566	510	430	16,677	1.0%
Italy	471	7,680	275	8,484	0.7%
France	489	257	4,749	5,582	1.6%
Rest of the EU27	1,780	670	597	3,085	1.3%
Rest of the World	**5,805**	**2,862**	**2,259**	**11,050**	**1.1%**
Subsidised					
EU27	**9,253**	**3,345**	**2,604**	**15,271**	**0.5%**
Germany	8,813	133	98	9,083	0.4%
Italy	112	3,076	61	3,263	0.4%
France	53	32	2,365	2,461	0.4%
Rest of the EU27	274	103	81	464	1.2%
Rest of the World	**500**	**233**	**173**	**919**	**1.4%**
Non-subsidised					
EU27	**9,053**	**5,771**	**3,447**	**18,557**	**1.6%**
Germany	6,753	376	332	7,594	1.8%
Italy	359	4,604	214	5,221	0.9%
France	436	225	2,385	3,121	2.5%
Rest of the EU27	1,505	567	517	2,621	1.3%
Rest of the World	**5,305**	**2,628**	**2,085**	**10,131**	**1.1%**

Source: own elaboration based on FIDELIO model simulations

Recommendations

- Good policy making is based on:
  - good data (official statistics/partnership)
  - good tools/models (academia).
  - available technical capacity (skilful).
  - good economists (critical view).

Thank you very much!

¡Muchas gracias!

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