Erasmus School of Economics

European regional competitiveness and resilience in times of strategic autonomy

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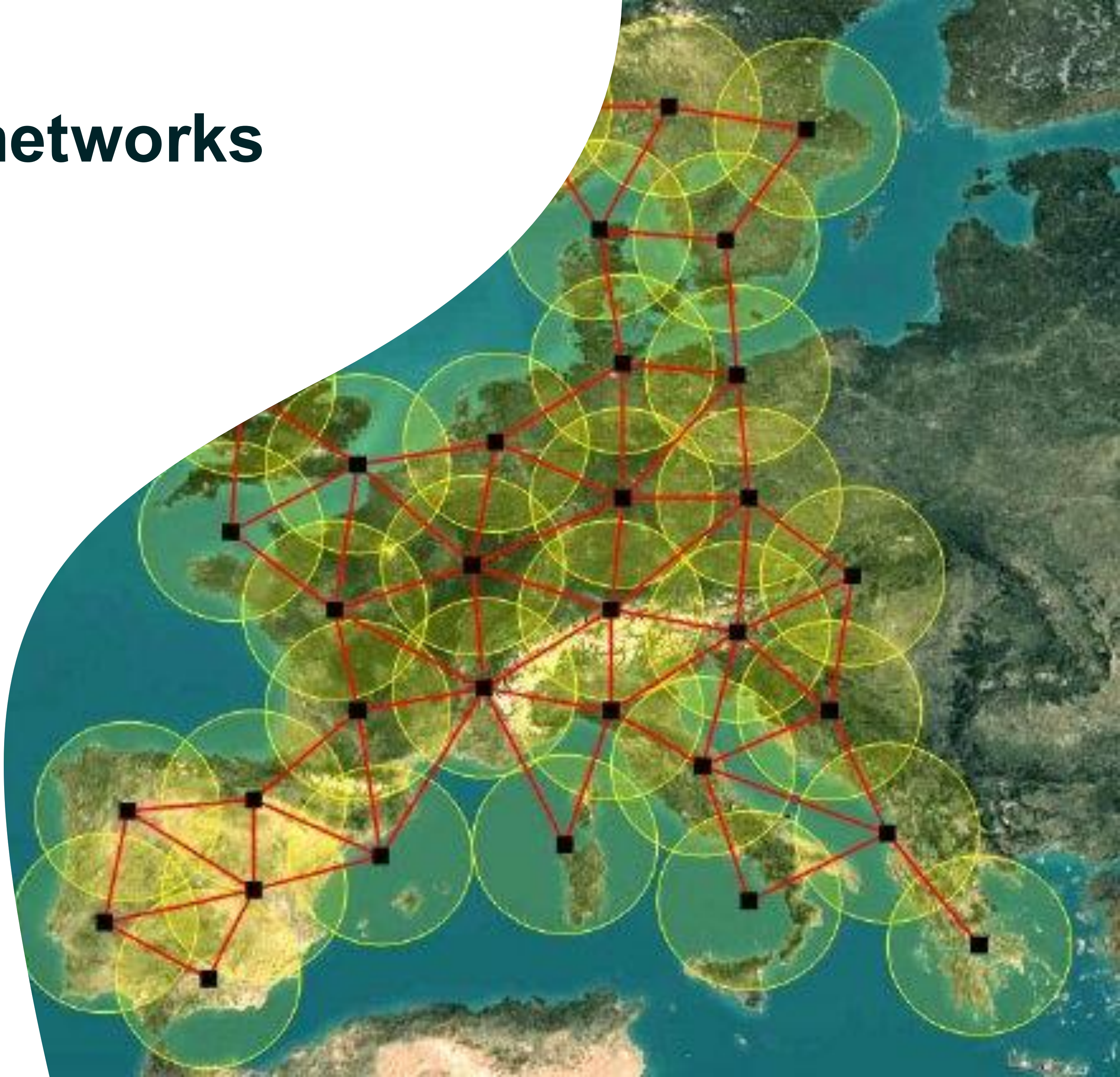
Europe is polycentric

- In spatial organization
  - morphological
  - functional
- In industry specialisations
- In societal goals
  - competitiveness
  - sustainability
  - cohesion

Polycentricity and fragmentation come at a cost, but may be a blessing.

Polycentricity needs networks

- Of trade
  - sectors
  - products & services
- Of investments
  - foreign,
  - domestic, regional
- Of industries (cross-overs)
- Of connecting infrastructures
- Of governance



Challenges ahead

- Economic structure
- Competition
- Specialisations
- Transitions
- Labour/housing/land markets
- Accessibility
- Quality of life
- Climate change
- Governance

The Draghi report

1. European competitiveness
2. Public & private investments
3. Innovation
4. Strategic autonomy
5. Crucial commodities and materials
6. Green deal (circularity)

Scale > scope?

Industrial policy > regional policy?

What would more autonomy mean for industrial and regional development in Europe?

An autonomy scenario

- Input-output model 260 EU regions
- Intermediate and final demand
- 60 sectors, 60 industries
- Exports, imports, factor inputs
- Trade diversion
- Technological change
- “25% less dependence on non-European deliveries of goods and services”
- -4% GDP loss
- Heterogeneity

Input-output analysis: multipliers

Regional expenditure flows

Sales of ($m)	Purchases of ($m)				
	Industry X	Industry Y	Industry Z	Final consumers	Total output
Industry X	-	-	70	30	100
Industry Y	20	-	80	100	200
Industry Z	20	80	-	200	300
Regional factor inputs	40	110	140	-	290
Regional imports	20	10	10	30	70
Total inputs	100	200	300	360	960

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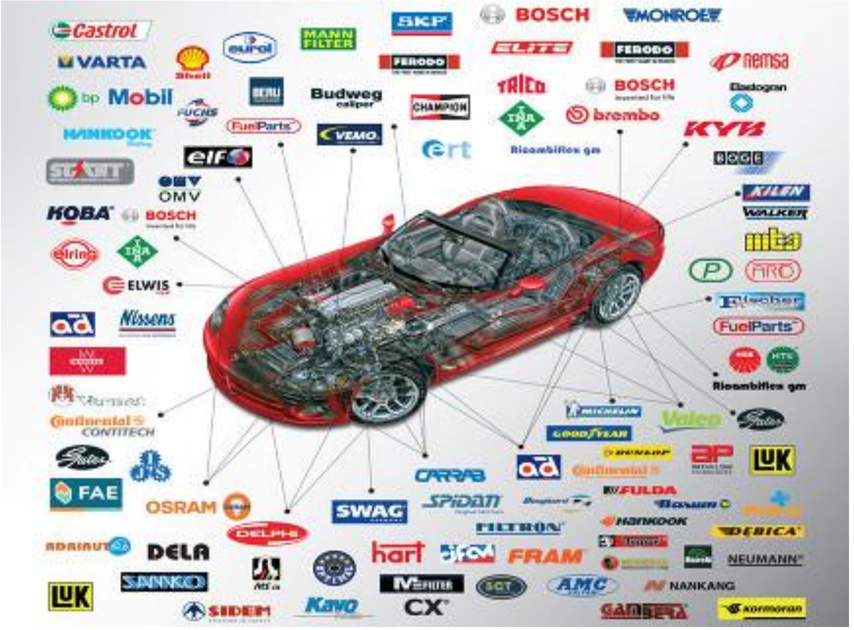
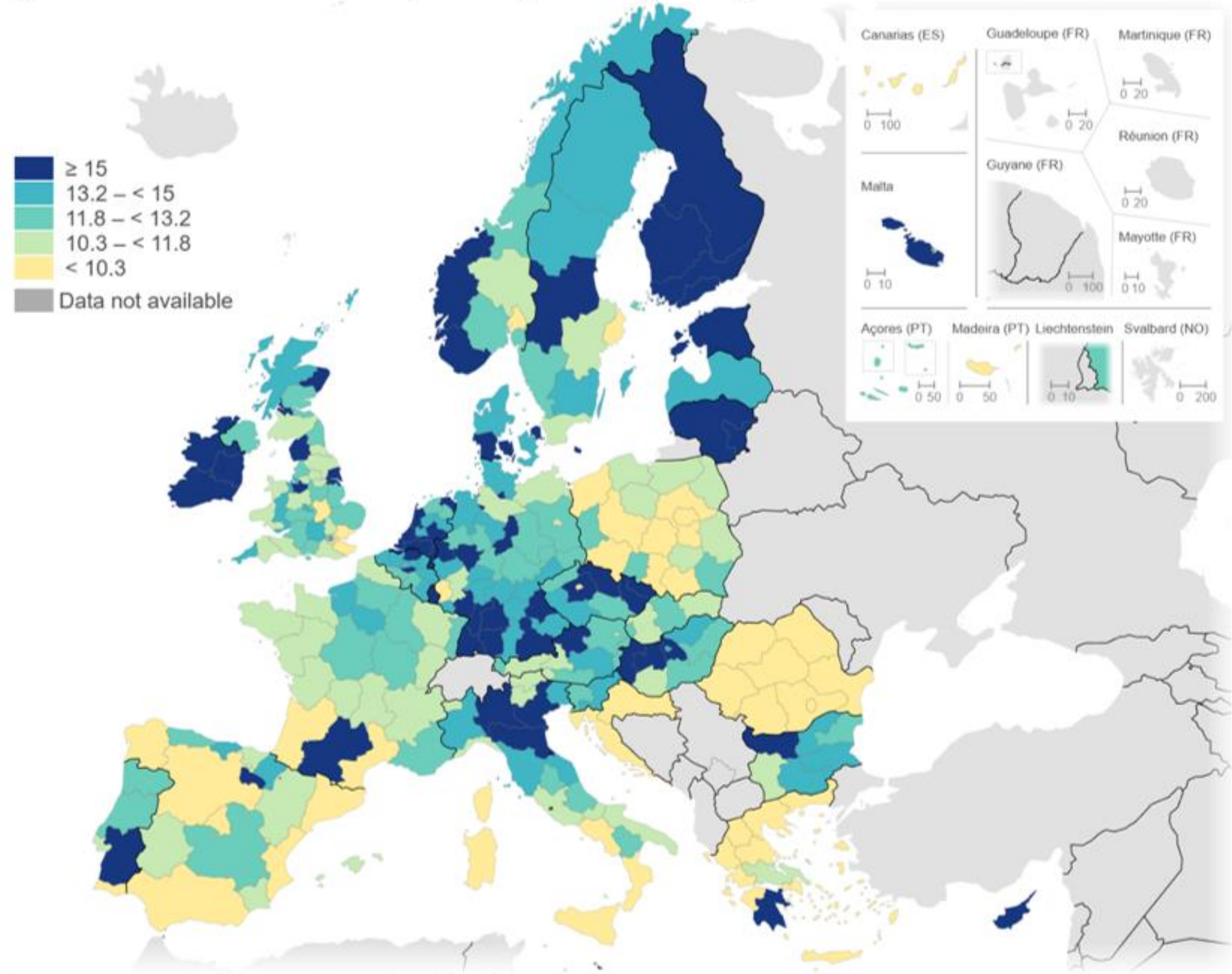
Input-output analysis: multipliers



“25% less non-EU dependence”

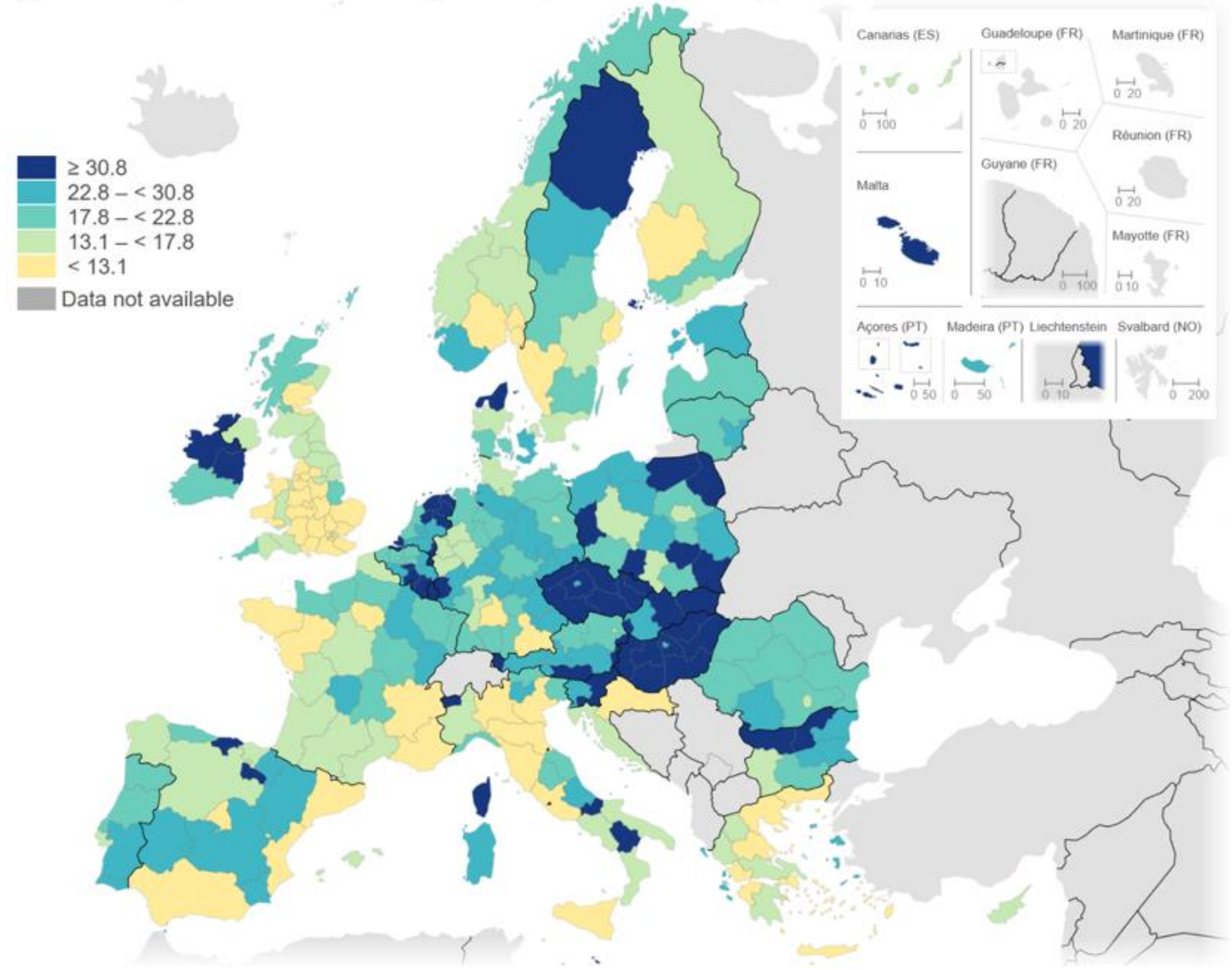
Figure 1. Global value chains exposure – percentage of regional GDP



Source: own calculations. Data classified by quintiles.

“25% less non-EU dependence”

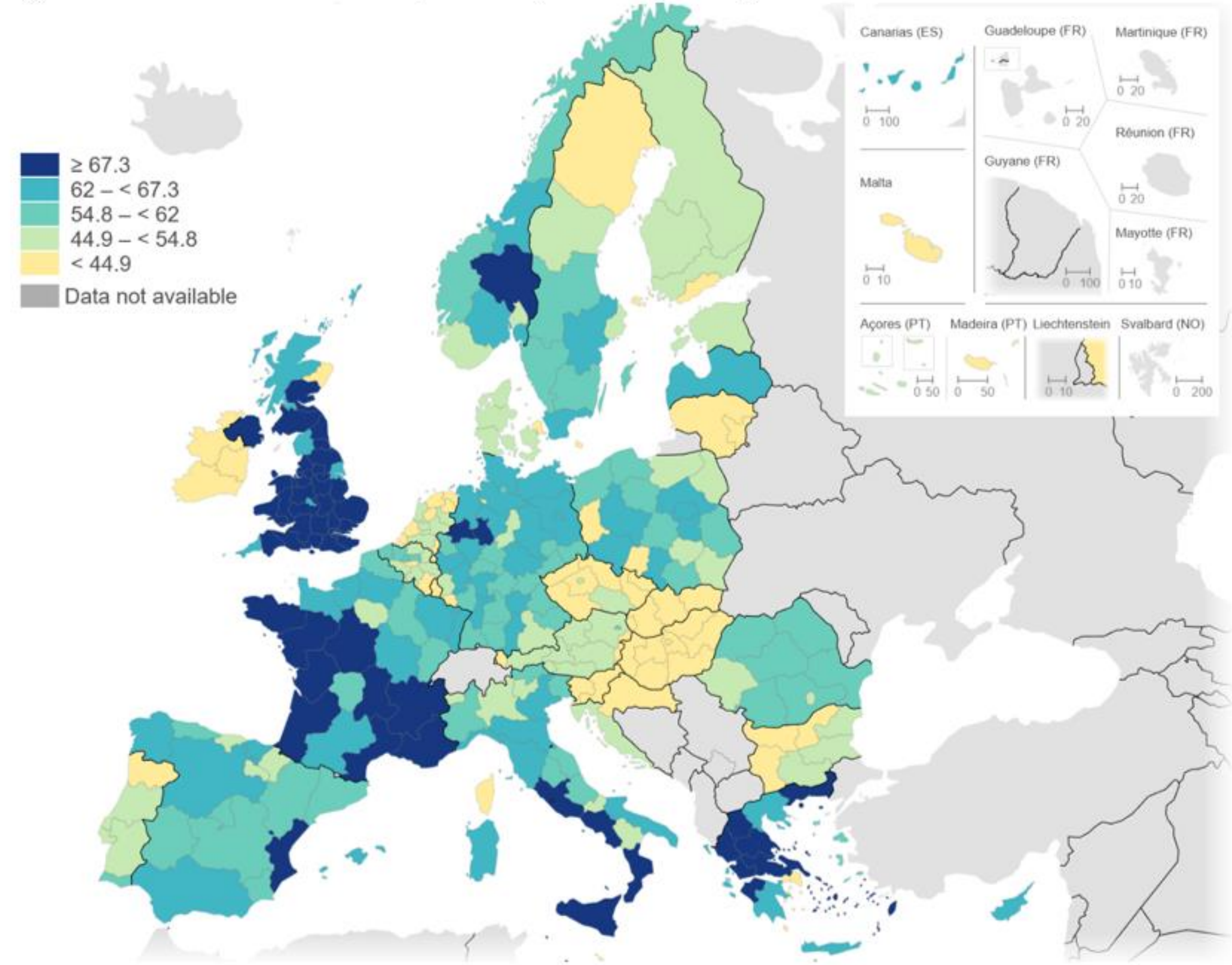
Figure 2. European value chain exposure – percentage of regional GDP



Source: own calculations. Data classified by quintiles.

“25% less non-EU dependence”

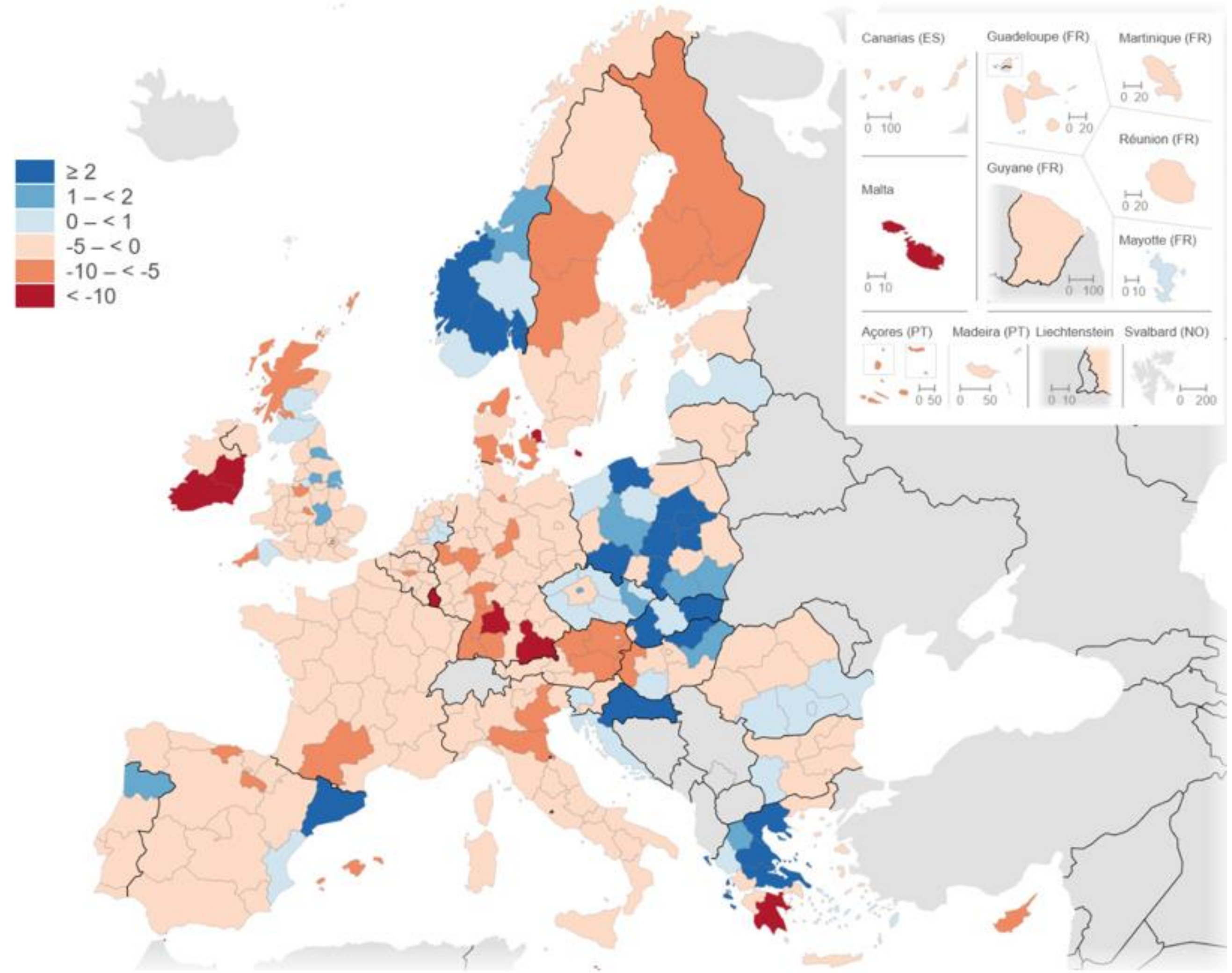
Figure 3. National value chain exposure – percentage of regional GDP



Source: own calculations. Data classified by quintiles.

“25% less non-EU dependence”

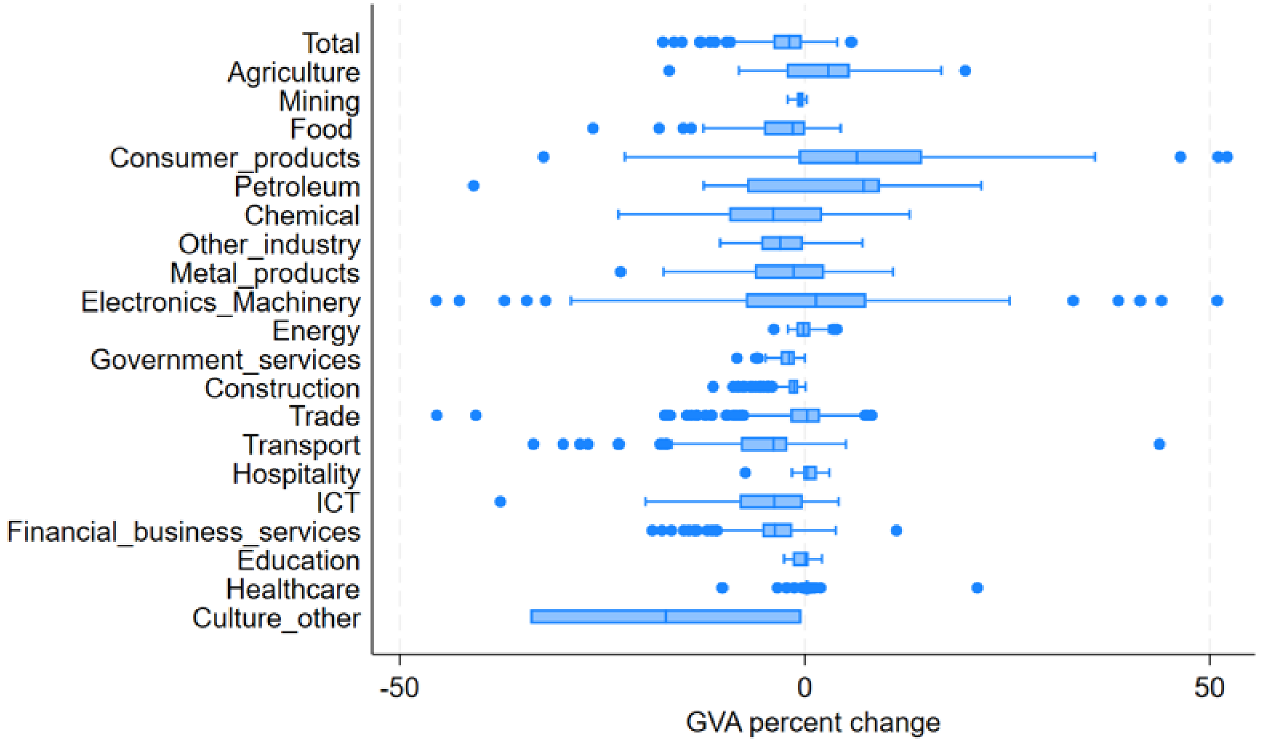
Figure 5. GVA percent change, per EU NUTS 2 region



Source: own calculations. Data classified by quintiles.

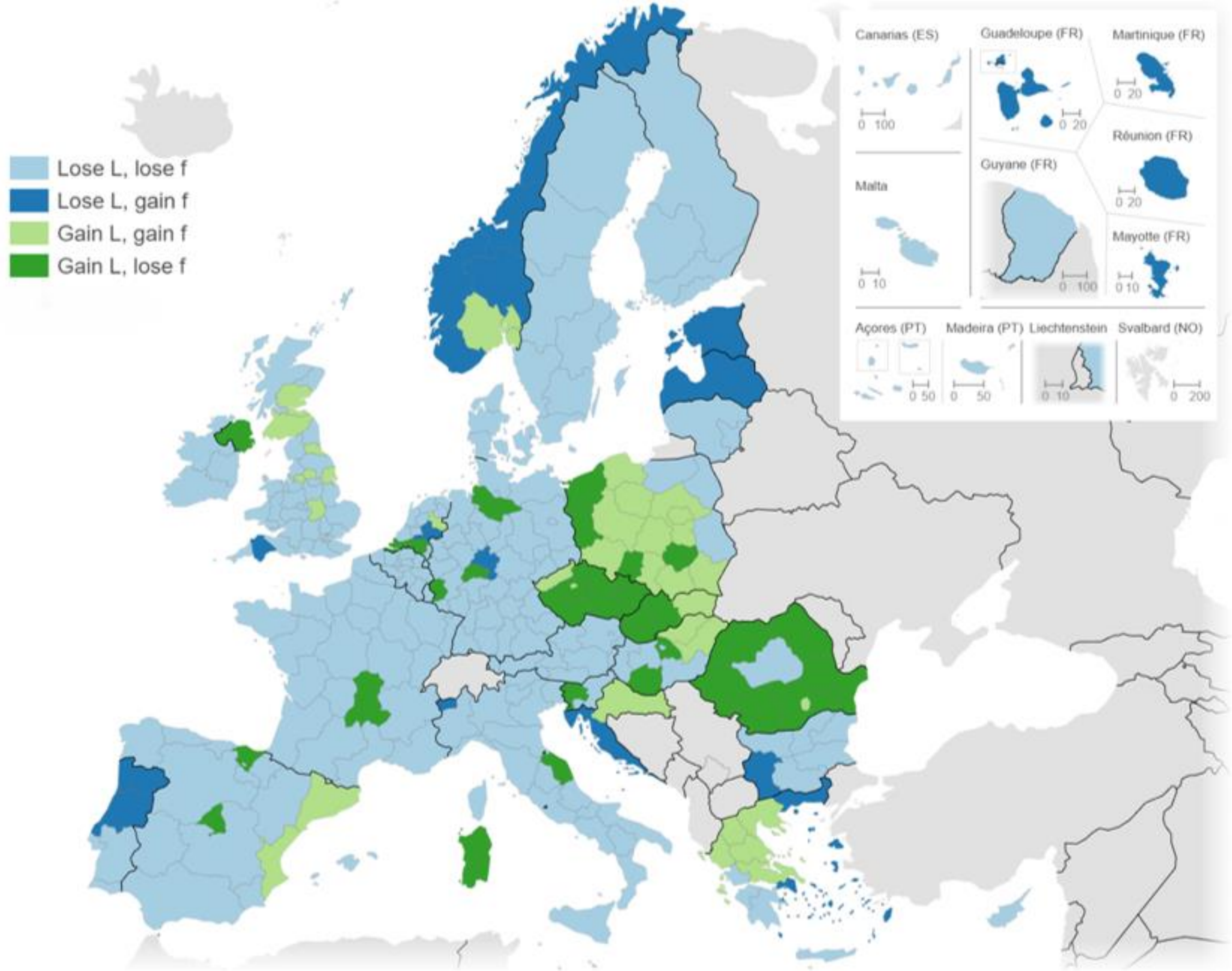
“25% less non-EU dependence”

Figure 6. Distribution of regional GVA change, per sector



“25% less non-EU dependence”

Figure 8. Regional classification based on GVA change decomposition



Source: own calculations.

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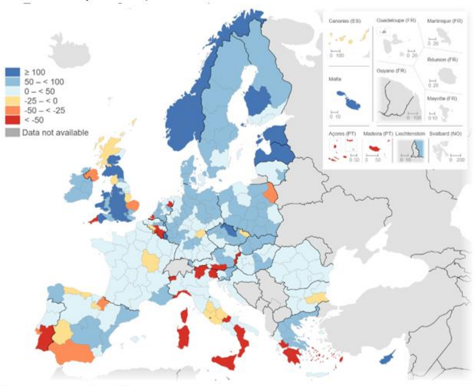
Table A1: Contribution to overall change following the shock

			DE11	DE21	FR10	IE06	ITC4	IE05	LU00	DK01	DEA1	DE71	ITH5	DE60	ITH3	FRJ2	FRL0	DEA2	ITC1	NL33	DE14	FRK2	DEA3	NL32	EL30	NL21	ES52	NL22	PT11	ES51	
			-8.38%	-7.68%	-7.13%	-5.54%	-4.19%	-3.28%	-2.83%	-2.68%	-2.61%	-2.18%	-2.11%	-1.93%	-1.77%	-1.52%	-1.45%	-1.36%	-1.36%	-1.06%	-1.00%	-0.97%	-0.83%	-0.48%	-0.17%	0.06%	0.14%	0.14%	0.24%	1.01%	
-14.08%	C28	Machinery and equipment	-2.56%	-0.41%	-0.27%	-0.12%	-1.31%	-0.84%	-0.01%	-0.06%	-0.45%	-0.15%	-1.12%	-0.01%	-0.71%	-0.01%	-0.01%	-0.19%	-0.29%	-0.05%	-0.48%	-0.45%	-0.16%	-0.03%	0.01%	-0.04%	-0.02%	-0.01%	-0.05%	0.02%	C28
-12.50%	C29	Motor vehicles	-3.67%	-2.71%	-0.19%	0.10%	-0.18%	0.27%	0.00%	0.00%	-0.05%	-0.34%	-0.14%	0.00%	-0.06%	0.00%	0.00%	-0.32%	-0.47%	0.00%	-0.14%	-0.14%	0.00%	-0.01%	0.00%	-0.03%	-0.04%	0.00%	-0.04%	0.01%	C29
-6.45%	J62_63	Consulting, ICT	-0.10%	-0.18%	-0.04%	-2.16%	-0.03%	-0.25%	-0.16%	-0.07%	-0.06%	-0.09%	-0.01%	-0.06%	-0.01%	-0.01%	-0.02%	-0.07%	-0.03%	-0.03%	-0.08%	-0.01%	-0.02%	-0.04%	0.01%	-0.07%	-0.03%	-0.06%	0.00%	-0.10%	J62_63
-5.62%	M69_70	Legal, accounting, management	-0.11%	-0.19%	-0.56%	-0.06%	-0.12%	-0.02%	-0.12%	-0.04%	-0.15%	-0.12%	-0.02%	-0.07%	-0.03%	-0.06%	-0.06%	-0.09%	-0.03%	-0.06%	-0.03%	-0.10%	-0.03%	-0.06%	0.01%	-0.04%	-0.01%	-0.06%	0.00%	0.01%	M69_70
-4.96%	C25	Fabricated metal	-0.18%	-0.05%	-0.01%	0.00%	-0.58%	0.02%	-0.01%	-0.01%	-0.15%	-0.04%	-0.25%	0.00%	-0.29%	-0.02%	-0.02%	-0.05%	-0.17%	-0.01%	-0.06%	0.01%	-0.04%	-0.01%	0.01%	-0.01%	-0.02%	-0.01%	-0.04%	-0.01%	C25
-4.61%	C10T12	Food, drinks, tobacco	0.01%	-0.47%	-0.07%	0.02%	-0.14%	-0.57%	0.00%	-0.08%	0.02%	0.05%	-0.11%	0.00%	-0.08%	-0.05%	-0.06%	-0.06%	-0.10%	-0.32%	0.00%	-0.06%	0.01%	-0.04%	0.02%	-0.03%	-0.03%	-0.13%	-0.02%	0.03%	C10T12
-4.43%	C20	Chemicals	-0.26%	-0.02%	-0.42%	-0.01%	-0.16%	-0.29%	0.01%	-0.02%	-0.28%	0.05%	-0.07%	-0.16%	-0.02%	-0.04%	-0.03%	0.09%	-0.08%	-0.12%	0.01%	-0.04%	-0.45%	-0.01%	0.04%	0.03%	0.03%	-0.15%	0.00%	0.20%	C20
-4.07%	C21	Pharmaceuticals	0.00%	-0.14%	-0.14%	-0.46%	-0.16%	-0.08%	0.00%	-0.37%	-0.05%	-0.52%	0.01%	-0.01%	0.01%	0.00%	-0.07%	-0.14%	0.05%	0.01%	-0.20%	0.00%	-0.01%	0.02%	0.05%	0.00%	0.00%	0.00%	0.00%	0.12%	C21
-3.90%	H50	Water transport	0.01%	0.01%	0.03%	0.00%	0.00%	0.00%	0.00%	-1.08%	-0.03%	0.01%	0.00%	-0.74%	0.00%	0.00%	-0.57%	0.00%	0.00%	-0.21%	0.00%	0.01%	0.00%	0.03%	-0.66%	0.00%	-0.01%	0.00%	0.00%	0.00%	H50
-3.87%	N77	Rental and leasing	-0.06%	-0.08%	-0.40%	-0.46%	-0.05%	-0.14%	-0.17%	-0.01%	-0.06%	-0.09%	-0.01%	-0.15%	-0.01%	-0.02%	-0.05%	-0.04%	-0.01%	-0.08%	-0.05%	-0.04%	-0.04%	-0.29%	0.00%	0.00%	0.00%	-0.04%	0.00%	0.01%	N77
-3.40%	N80T82	Business support	-0.04%	-0.07%	-0.43%	-0.06%	-0.10%	-0.03%	-0.02%	-0.07%	-0.08%	-0.07%	-0.03%	-0.04%	-0.02%	-0.04%	-0.11%	-0.05%	-0.04%	-0.01%	-0.02%	-0.07%	-0.02%	-0.02%	0.00%	-0.01%	-0.02%	-0.01%	-0.01%	-0.03%	N80T82
-2.60%	C30	Other transport equipment	0.01%	-0.46%	-1.44%	0.04%	-0.04%	0.34%	0.00%	0.00%	0.01%	0.01%	0.00%	-0.31%	0.03%	-1.19%	-0.27%	0.00%	-0.03%	-0.10%	0.01%	0.00%	0.00%	0.02%	0.12%	0.01%	0.00%	0.02%	0.00%	-0.01%	C30
-2.50%	K64	Finance	0.00%	0.04%	-0.01%	-0.51%	-0.03%	-0.15%	-1.55%	-0.03%	0.01%	0.01%	0.01%	-0.02%	0.01%	-0.01%	0.00%	0.00%	0.00%	0.06%	-0.01%	0.00%	-0.02%	0.12%	0.02%	0.00%	0.01%	0.01%	0.01%	0.06%	K64
-2.30%	G46	Wholesale trade	0.02%	-0.34%	-2.01%	-0.31%	-0.05%	-0.22%	0.00%	-0.46%	-0.38%	-0.19%	-0.02%	0.06%	0.07%	0.02%	0.05%	0.00%	0.01%	-0.16%	0.09%	0.09%	0.04%	-0.02%	0.00%	0.06%	0.00%	0.11%	0.02%	0.20%	G46
-1.59%	K66	Auxiliary finance	-0.01%	-0.02%	-0.07%	-0.15%	-0.02%	-0.03%	-0.62%	-0.01%	-0.02%	-0.01%	-0.01%	-0.01%	-0.01%	-0.01%	-0.01%	-0.01%	-0.01%	0.00%	0.00%	-0.01%	-0.01%	0.00%	0.00%	0.00%	0.00%	-0.01%	0.00%	0.01%	K66
-1.17%	M72	Scientific research	-0.03%	-0.04%	0.00%	0.17%	-0.04%	0.22%	0.01%	0.01%	0.00%	-0.01%	0.00%	-0.04%	0.00%	-0.06%	0.00%	0.00%	-0.02%	0.01%	-0.13%	0.00%	-0.01%	0.01%	0.00%	-0.03%	0.00%	0.01%	0.00%	0.01%	M72
-1.16%	H49	Land transport	0.00%	0.00%	0.19%	0.03%	-0.05%	0.01%	0.00%	-0.06%	-0.01%	-0.02%	-0.02%	0.00%	-0.02%	-0.01%	-0.01%	0.00%	-0.02%	-0.02%	0.00%	0.00%	0.00%	-0.01%	0.01%	-0.01%	0.01%	-0.02%	0.00%	-0.03%	H49
0.49%	C19	Petroleum	0.00%	0.00%	0.52%	-0.01%	-0.08%	-0.20%	0.00%	0.02%	0.01%	0.00%	0.00%	0.24%	0.01%	0.00%	0.00%	0.20%	0.00%	-0.15%	0.00%	0.00%	0.00%	-0.01%	0.02%	-0.09%	-0.02%	0.00%	-0.01%	-0.03%	C19
1.62%	A01	Crops and animals	0.02%	0.03%	0.00%	-0.06%	0.05%	-0.50%	0.01%	0.00%	0.02%	0.01%	0.05%	-0.01%	0.04%	0.00%	0.01%	0.01%	0.03%	0.07%	0.01%	0.00%	0.03%	0.00%	0.01%	0.02%	0.03%	0.01%	0.02%	0.02%	A01
6.20%	C26	Computers	-0.20%	-0.60%	-0.35%	0.01%	0.02%	-0.34%	0.02%	0.06%	0.08%	-0.04%	0.02%	0.06%	0.02%	0.08%	0.13%	0.08%	0.06%	0.25%	0.08%	0.14%	0.02%	0.26%	0.01%	0.24%	0.02%	0.52%	0.02%	0.06%	C26
6.89%	C13T15	Textiles	0.11%	0.07%	0.13%	0.01%	0.18%	0.02%	0.09%	0.02%	0.08%	0.03%	0.14%	0.00%	0.28%	0.02%	0.03%	0.05%	0.15%	0.04%	0.13%	0.15%	0.11%	0.03%	0.05%	0.08%	0.39%	0.02%	0.48%	0.44%	C13T15
			DE11	DE21	FR10	IE06	ITC4	IE05	LU00	DK01	DEA1	DE71	ITH5	DE60	ITH3	FRJ2	FRL0	DEA2	ITC1	NL33	DE14	FRK2	DEA3	NL32	EL30	NL21	ES52	NL22	PT11	ES51	

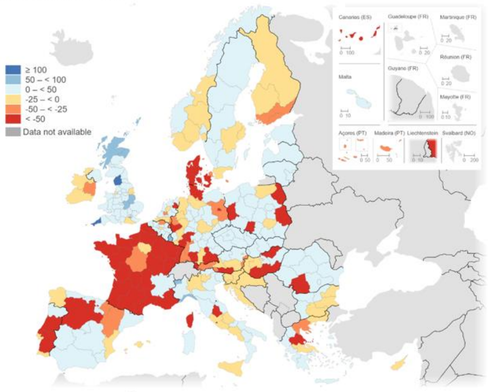
“25% less non-EU dependence”

Figure A1. GVA percent variation, per EU NUTS 2 region, in the C13-15 division (Food, beverage and tobacco products).



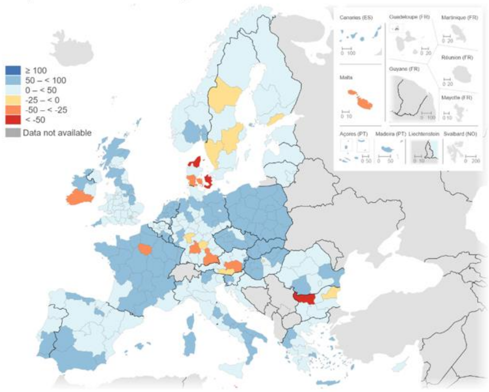
Source: own calculations.

Figure A2. GVA percent variation, per EU NUTS 2 region, in the C21 division (Manufacture of pharmaceuticals).



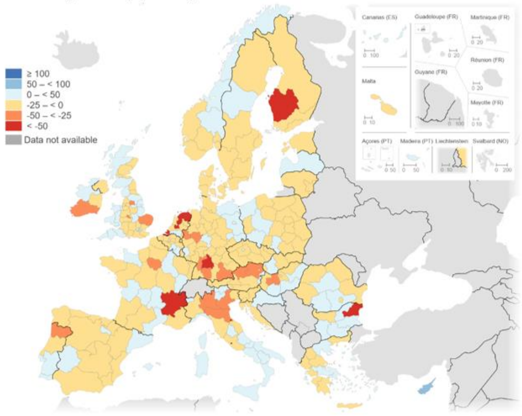
Source: own calculations.

Figure A3. GVA percent variation, per EU NUTS 2 region, in the C26 division (Manufacture of computers and electronics).



Source: own calculations.

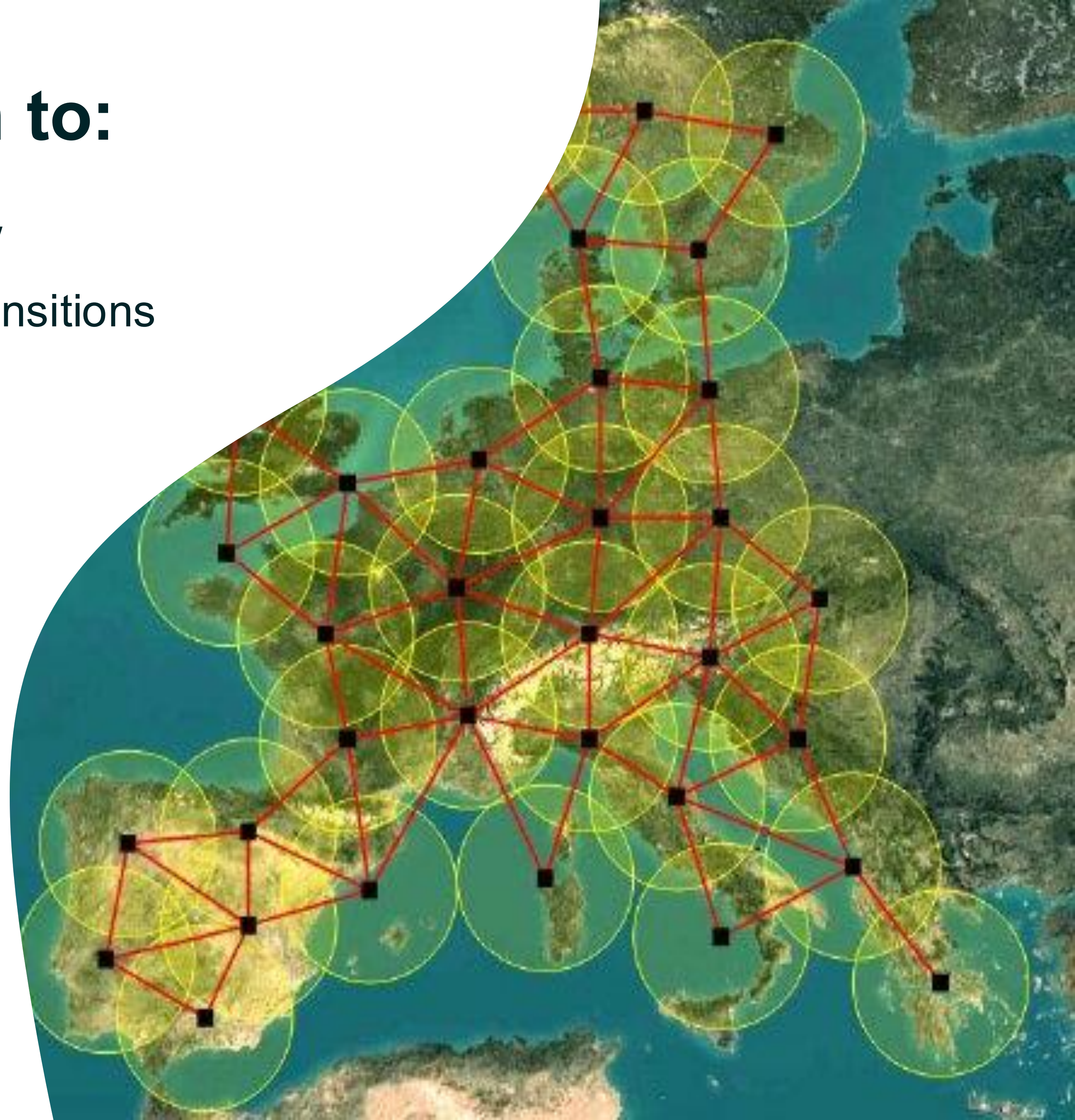
Figure A4. GVA percent variation, per EU NUTS 2 region, in the C28 division (Manufacture of machinery and equipment).



Source: own calculations.

We need to pay attention to:

- Specializations of regions, old and new
- Diversification strategies of regions, transitions
- Complementarities & **integration**
- Investments and quality of production
- Infrastructures and inventories
- Network mechanisms
- Wages and productivity
- Labour/housing/land markets
- Technological change opportunities
- Price adjustments
- Inequalities & quality of life



Broad prosperity

- competitiveness
- sustainability
- cohesion

Trade-offs and synergies between these dimensions are the core of economics: what people value. European regions and cities prosper on more dimensions, and this needs to be valued.

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