Firms, Eco-industries and their Tax Treatment in Europe

L'evoluzione della Fiscalità in coerenza con lo Sviluppo Sostenibile

Auditorium Ministero dell'Ambiente e della Tutela del Territorio e del Mare

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Stefan Speck

European Environment Agency

Content

Firms and eco-industries (EGSS)

- past performance and future projections

Energy taxation in the EU

- revenues; tax rates; tax expenditures
- EU ETS – indirect cost compensation

Energy costs – across sectors (EU)

Circular economy and fiscal policy – some aspects

Reflections

Who we are, what we do...

The EEA mission:

"The EEA aims to support sustainable development and to help achieve significant and measurable improvement in Europe's environment through the provision of timely, targeted, relevant and reliable information to policy makers and the public"

Who we are, what we do...

The EEA is...

- An independent EU agency
- Analysing, assessing and providing information
- An interface between science and policy
- Dependent upon strong networks to carry out its work

The EEA is not...

- Formulating or proposing new legislation
- An executive body implementing environmental measures
- A funding body

Who we are, what we do...

What is our mandate and objectives?

- Mapped to the policy objectives of the EU's 7th Environment Action Programme, the EEA has defined three strategic areas of work, namely
  - **Informing policy implementation**
  - **Assessing systemic challenges**
  - **Utilising networks, information networks, content-sharing and communication**

Who are EEA's target groups?

- Stakeholders: Institutions and governments
  - European Commission, Parliament, Council, EEA member countries
- Policy influencers: Civil society
  - NGOs, business, media, advisory groups, scientists, debaters
- The general public

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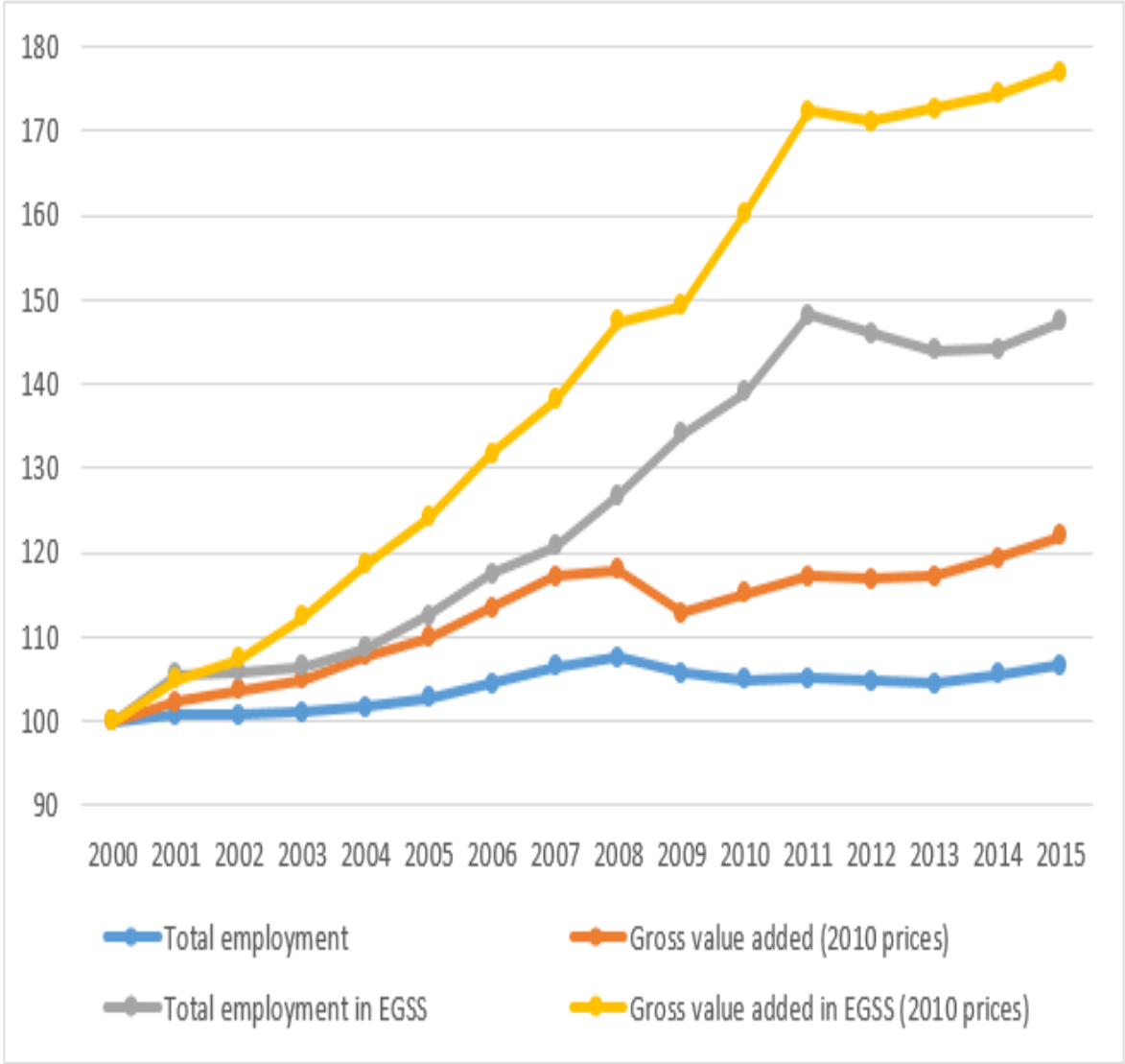
Which are the EEA member and collaborating countries?

Eco-industries – Environmental Goods Service Sector

The economic performance of the environmental goods and service sector (EGSS), also called eco-industries or environmental industries, outperformed the total economy of EU-28 in terms of creating economic prosperity and employment.

The EGSS encompasses **environmental protection activities (CEPA)** and **resource management activities (CReMA)**.

→ *comprises all entities in their capacity as environmental producers, i.e. undertaking the economic activities that result in products for environmental protection and resource management*.



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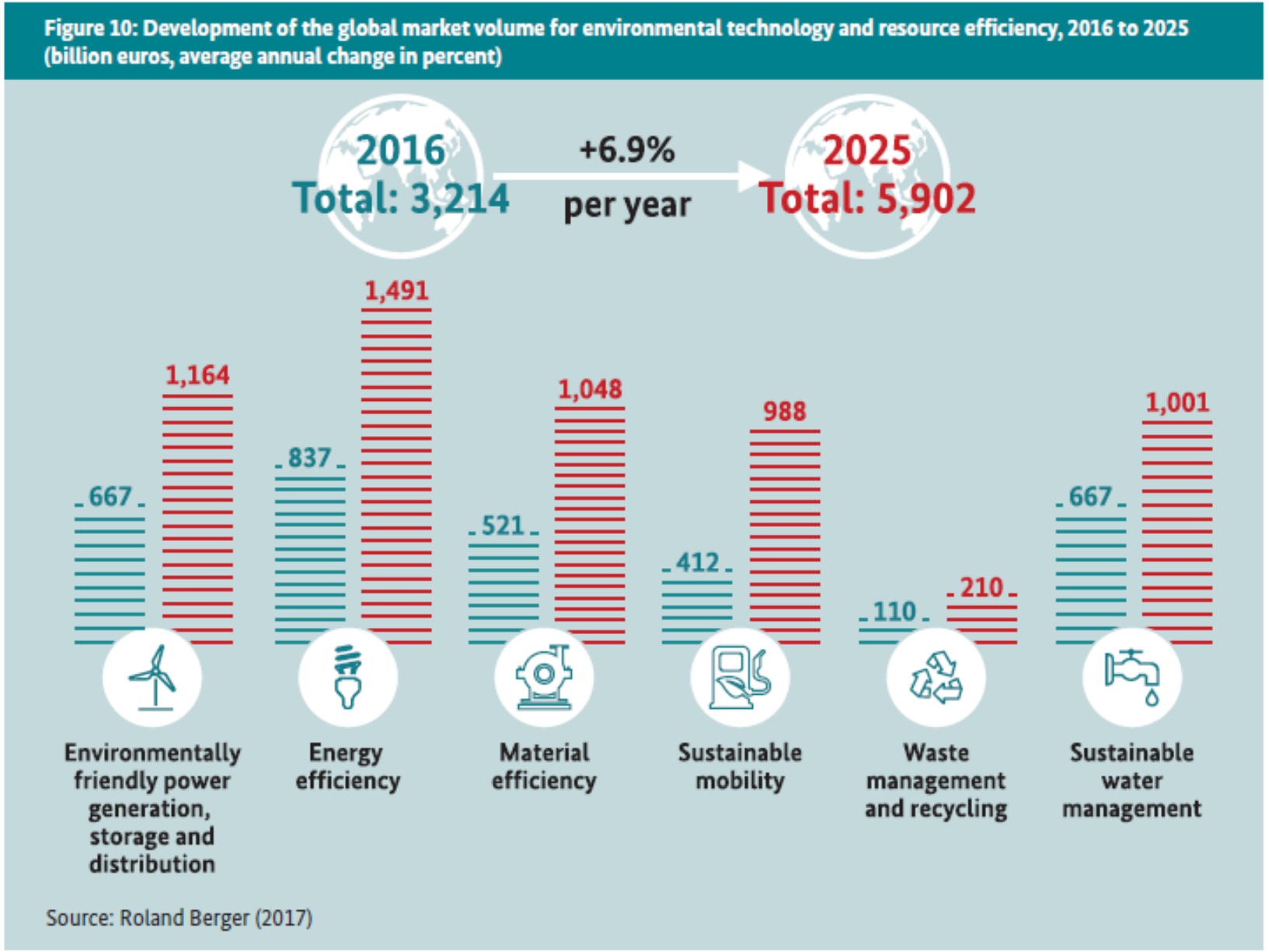
Source: EEA based on Eurostat data

Eco-industries – future outlook

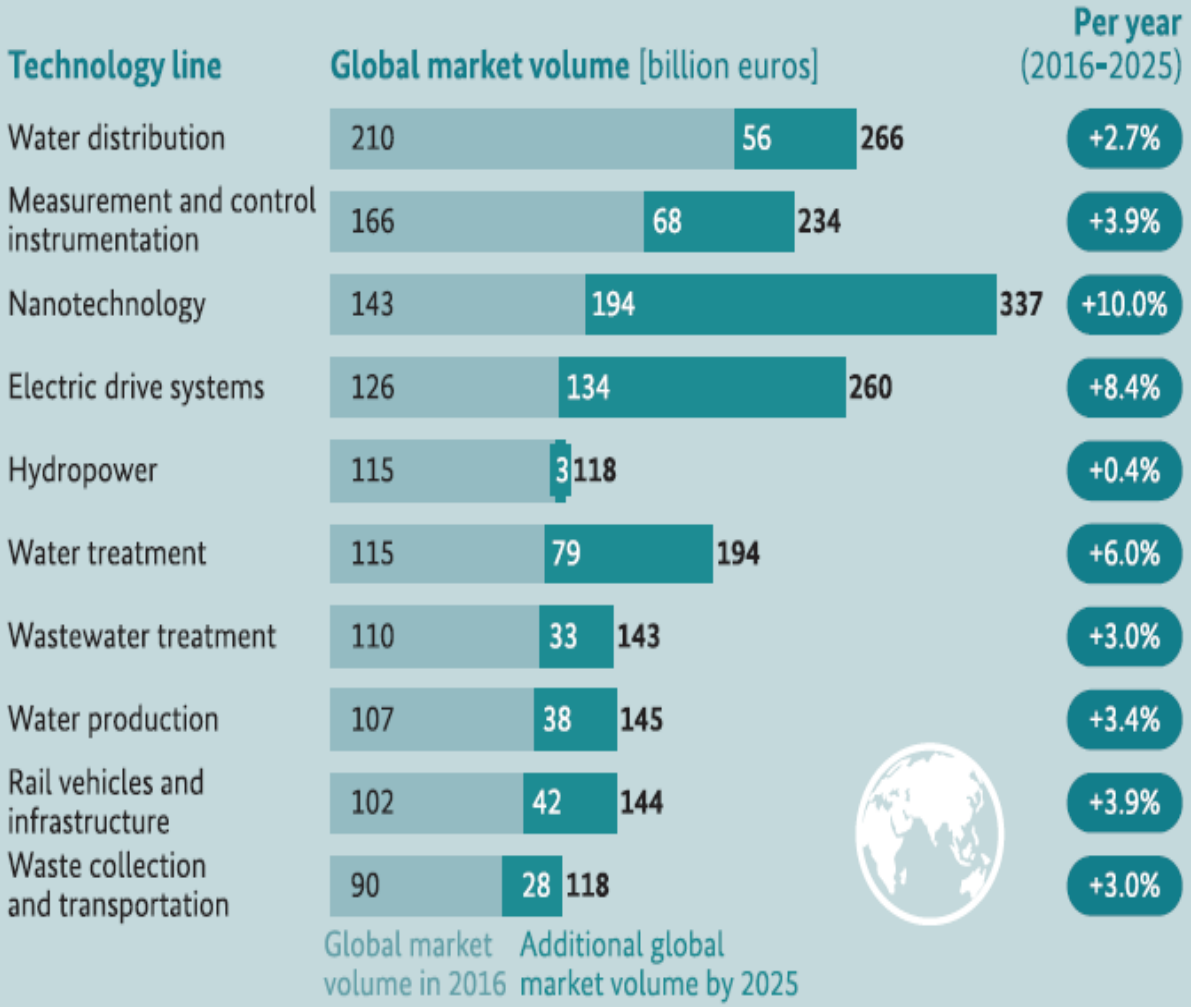
Since 2012 the growth of the market for environmental technologies lost its momentum as shown in the most recent trend figures of EGSS.

The global market for environmental technologies and resource efficiency is considered to have a high growth potential with a projected average annual growth rate of 6.9 % until 2025.



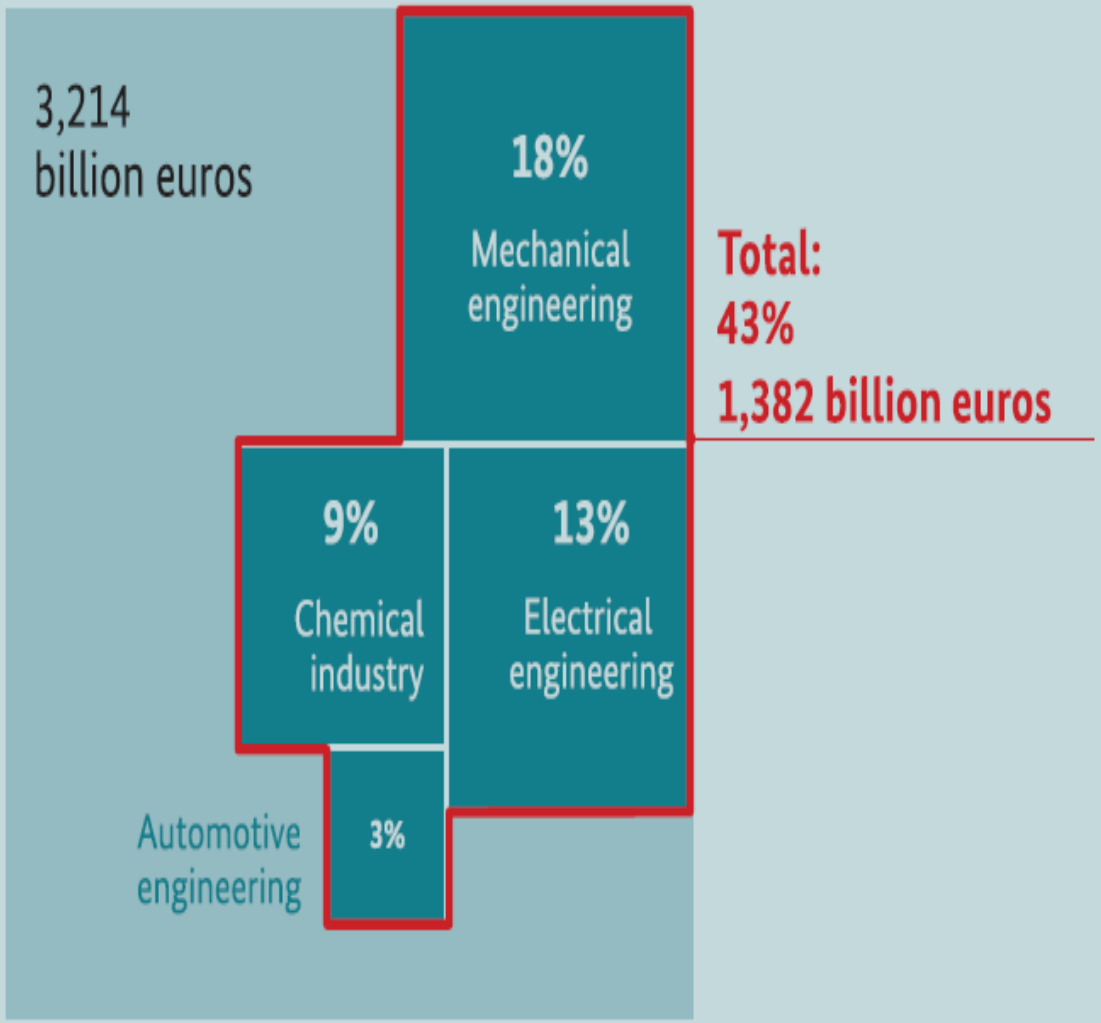
Growth of green technologies;the role of traditional industries

Figure 39: Selected technology lines with large global market volumes in 2016 and fast growth rates (billion euros, average annual change 2016 to 2025 in percent)



Source: Roland Berger (2017)

Figure 42: Traditional industries' share of the global market for environmental technology and resource efficiency in 2016 (percent)



Source: Roland Berger (2017)

Environmental taxation

Government intervention because environmental costs are not reflected in prices (prices do not reflect the '*true*' or '*full*' costs) can be done by building on '*existing markets*' to correct these **market failures** by using environment taxes – levied on energy, air and water pollutants, natural resources, etc. (as opposed to by '*creating new markets'* - tradable permits (EU ETS))

- The primary objectives and benefits of environmental taxes are to reduce pollution and resource use; by internalising externalities / external costs, i.e. to correct an inefficient market outcome, and to change behaviour [societal costs are higher than private costs, i.e. influence relative prices]
- Secondary benefits to be considered: lower health-related costs, trigger eco-innovations that generate wealth and jobs.
- A further benefit of environmental taxes is their fiscal function, i.e. generating budgetary sources (tax-shifting programmes)

Energy taxation and ETS – emission coverage

Share of emissions priced and average price signals from tax & ETS, by total								
		CO_2 emissions by sector (in t CO_2)	TAX		ETS		Overlap of tax and ETS	Emissions not covered by tax or ETS
			Average price (in EUR / t CO_2)	Share of emissions covered	Average price (in EUR / t CO_2)	Share of emissions covered		
			Tax		**ETS**		Overlap between taxes & ETS	**Emissions not priced**
			EUR/tCO2	% priced	EUR/tCO2	% priced		
All 41 countries (OECD)	Agriculture & Fishing	353,044	32.26	51%	7.67	2%	1%	47%
	Electricity	9,870,994	10.19	27%	6.82	18%	10%	64%
	Industry	9,883,846	11.50	17%	6.63	13%	4%	74%
	Off-road transport	664,120	19.46	57%	7.63	5%	2%	41%
	Residential & Commercial	4,486,593	23.72	18%	7.89	3%	1%	80%
	Road transport	4,454,582	74.89	98%	9.24	5%	5%	2%
ITA	Agriculture & Fishing	6,886	46.81	100%	7.24	0%	0%	0%
ITA	Electricity	120,238	15.41	91%	7.24	87%	79%	0%
ITA	Industry	89,153	16.51	61%	7.24	66%	39%	12%
ITA	Off-road transport	5,603	25.08	8%	7.24	46%	4%	50%
ITA	Residential & Commercial	87,048	57.30	80%	7.24	0%	0%	20%
ITA	Road transport	100,962	239.39	100%	0.00	0%	0%	0%
ITA	Total	409,890	75.87	84%	2.94	41%	32%	7%

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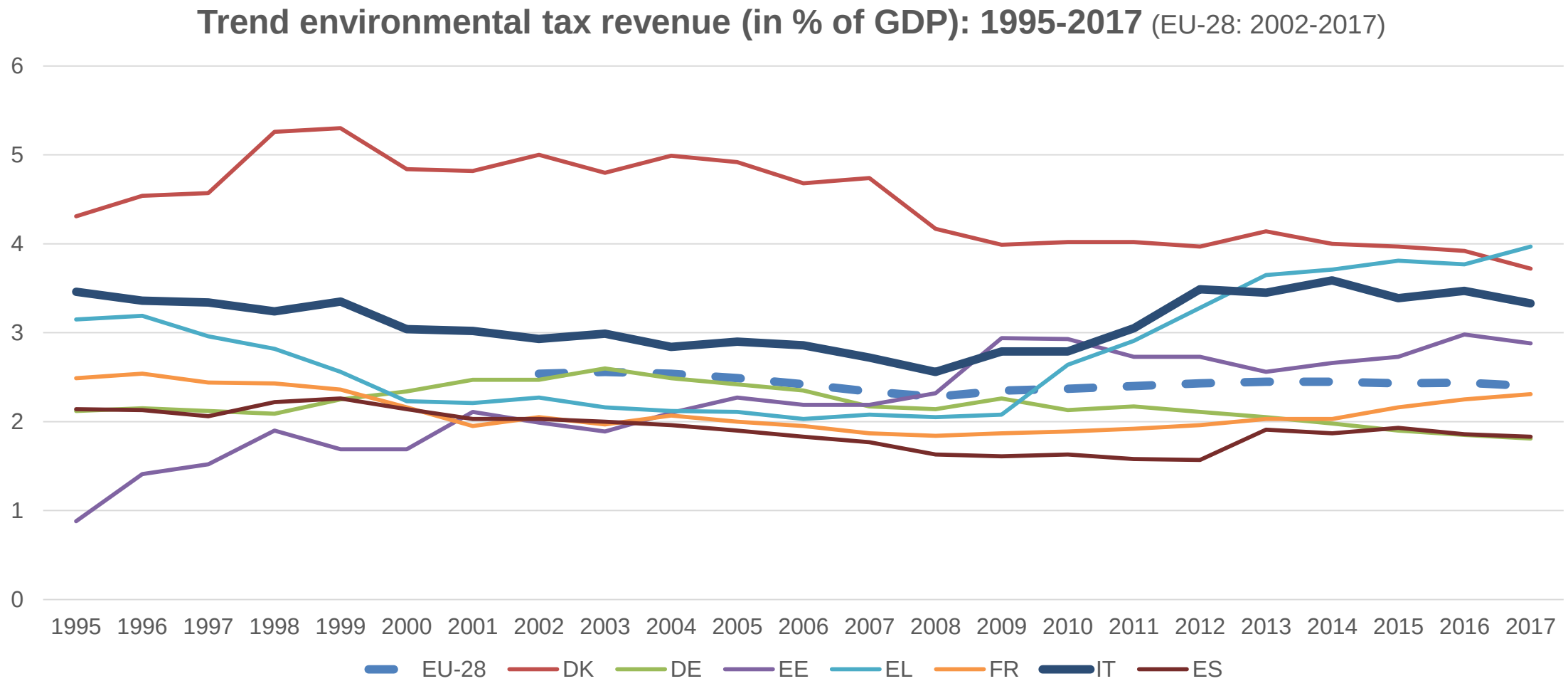
Source: http://www.oecd.org/tax/tax-policy/Share-of-emissions-priced-and-average-price-signals-from-taxes-and-ETS-all-country-data.xlsx;

Trends in environmental tax revenue in the EU



Energy tax revenues amount to about 80% of environmental tax revenues; increase in environmental tax revenues 9% between 1995-2017 (constant 2010 prices) but increase in revenues of '**Imposta sull'energia elettrica e oneri di sistema sulle energia rinnovabili**' (*Excise duty on electricity and fees to cover general system costs for renewable energies*) during the same period by 434% and has a share of 32% of total energy tax revenues in 2017 as compared to 5% in 1995 (National Tax list 2018)

Source: Eurostat

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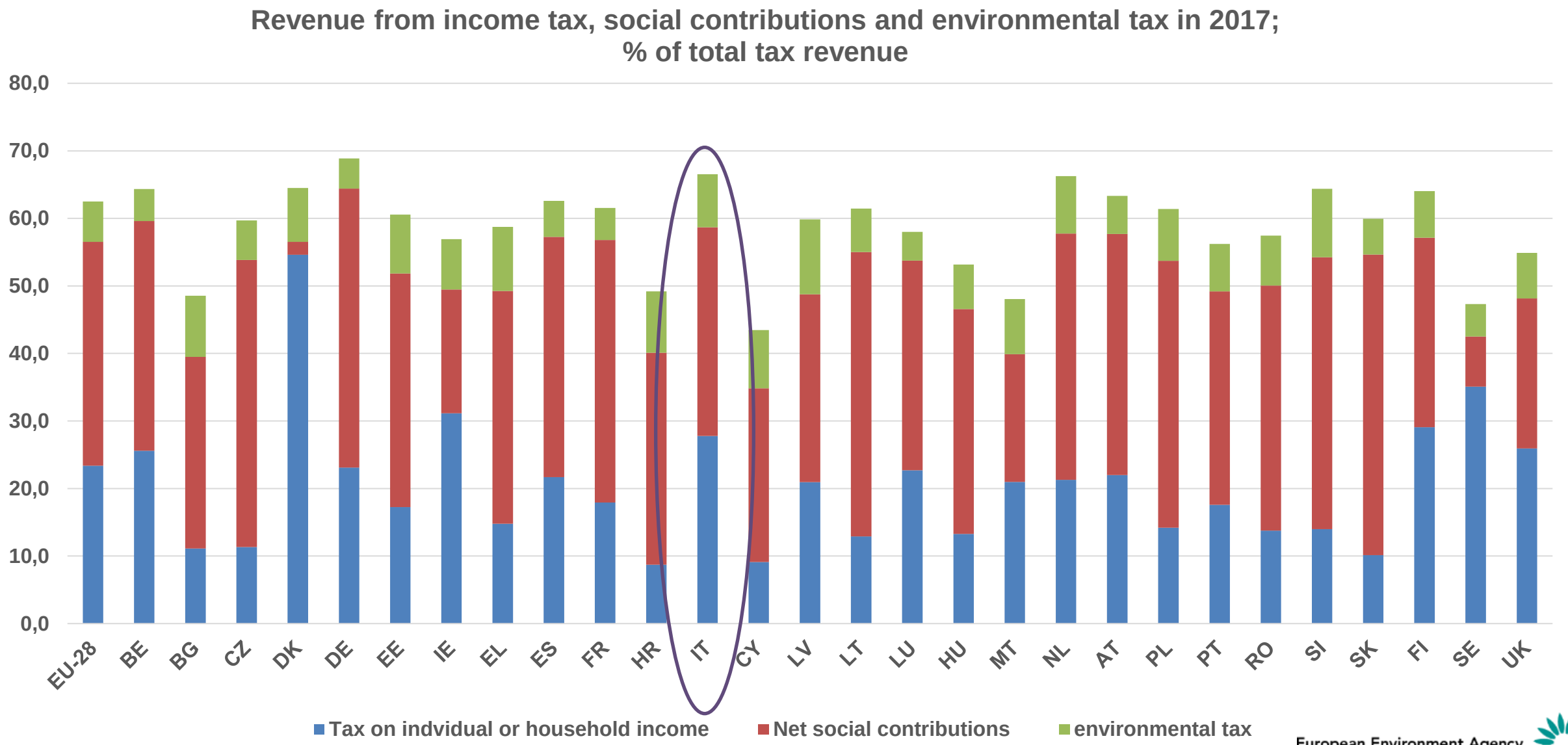
Environmental/labour tax revenue in the EU in 2017



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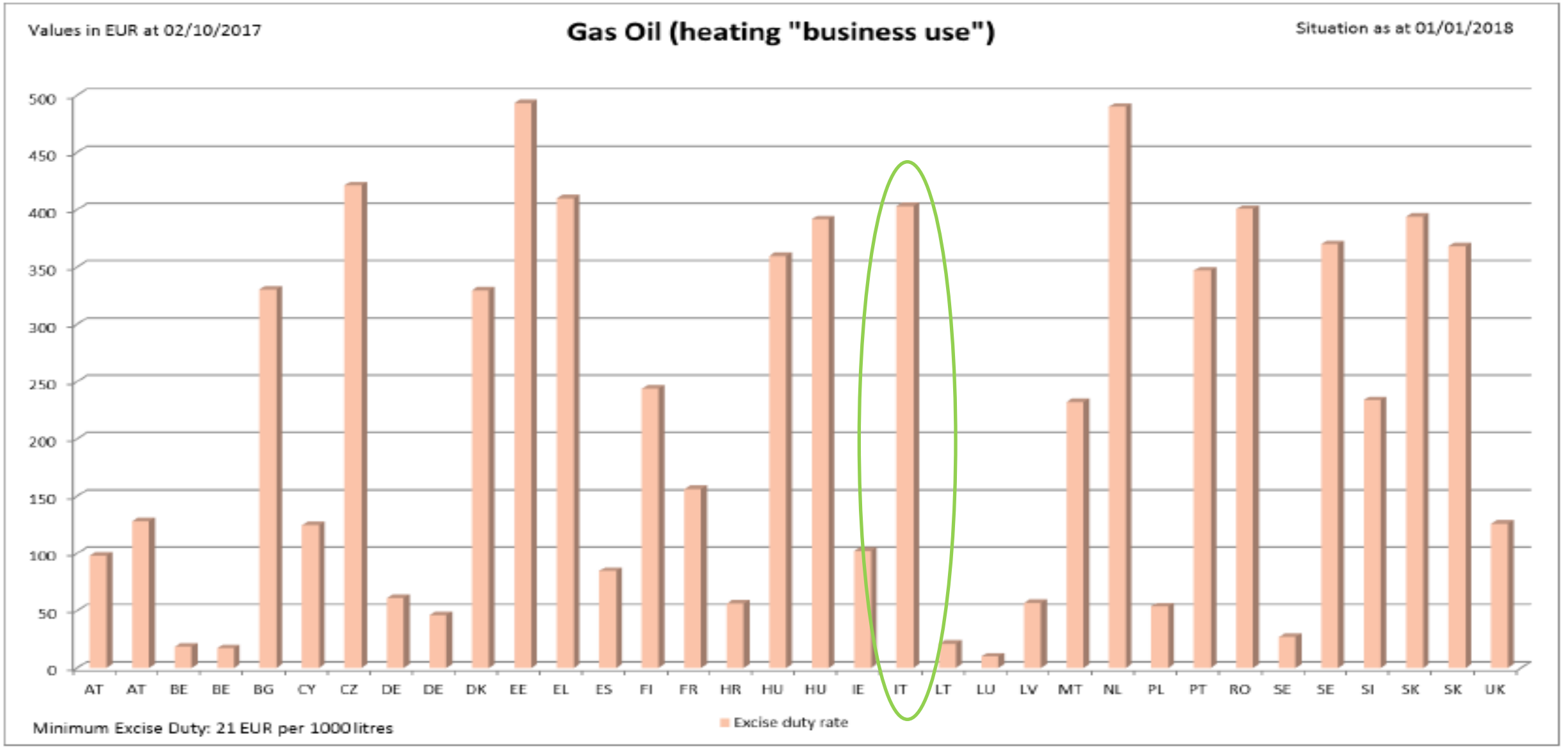
Source: Eurostat; https://ec.europa.eu/eurostat/statistics-explained/index.php/Tax_revenue_statistics#General_overview (income: D.51a+c1 of which, taxes on individual or household income incl. holding gains; net social contribution: D.61 Net social contributions)

Taxes levied on energy products / business use



Source: EC, DG TAXUD, Excise Duty Tables

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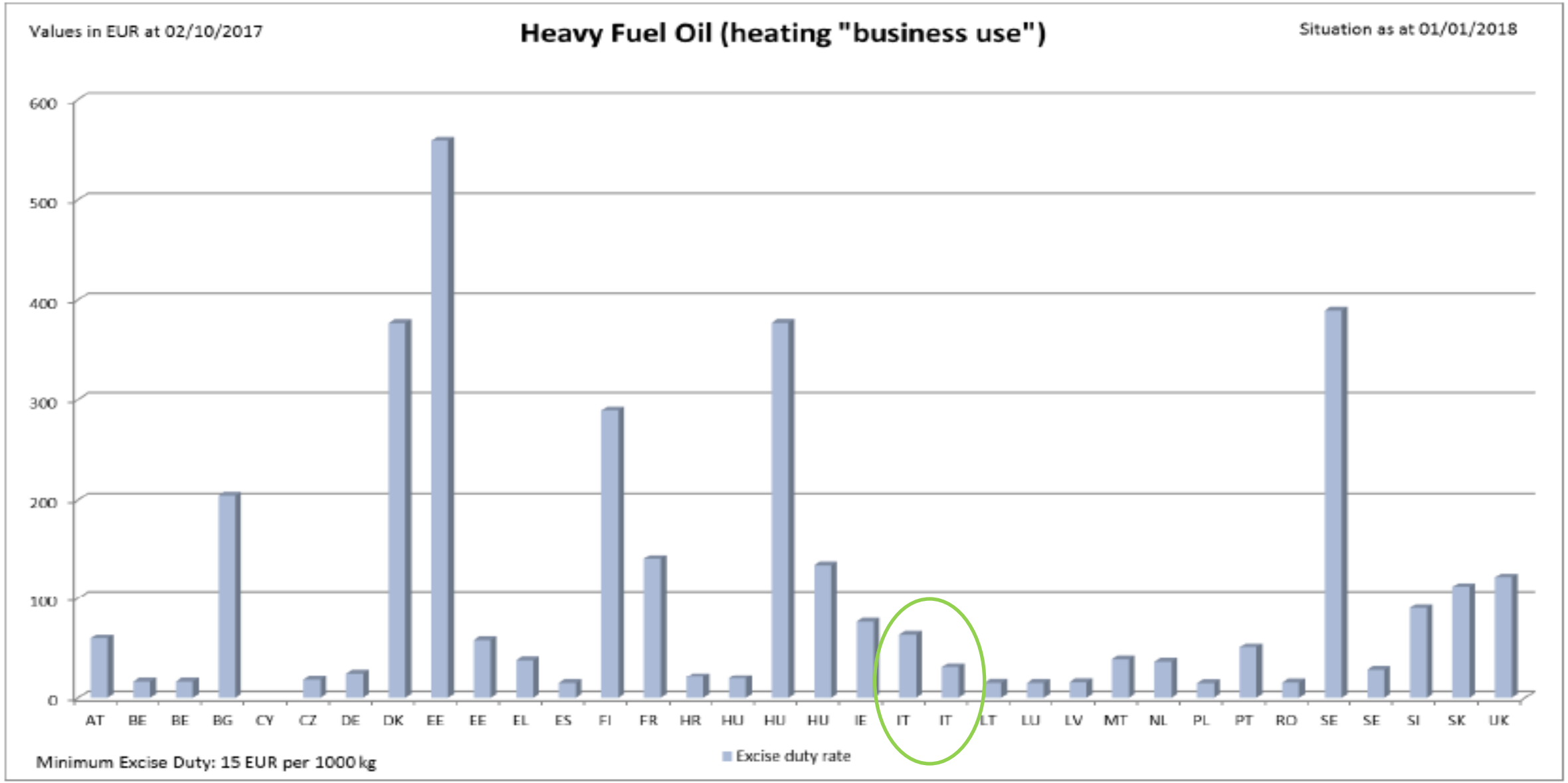

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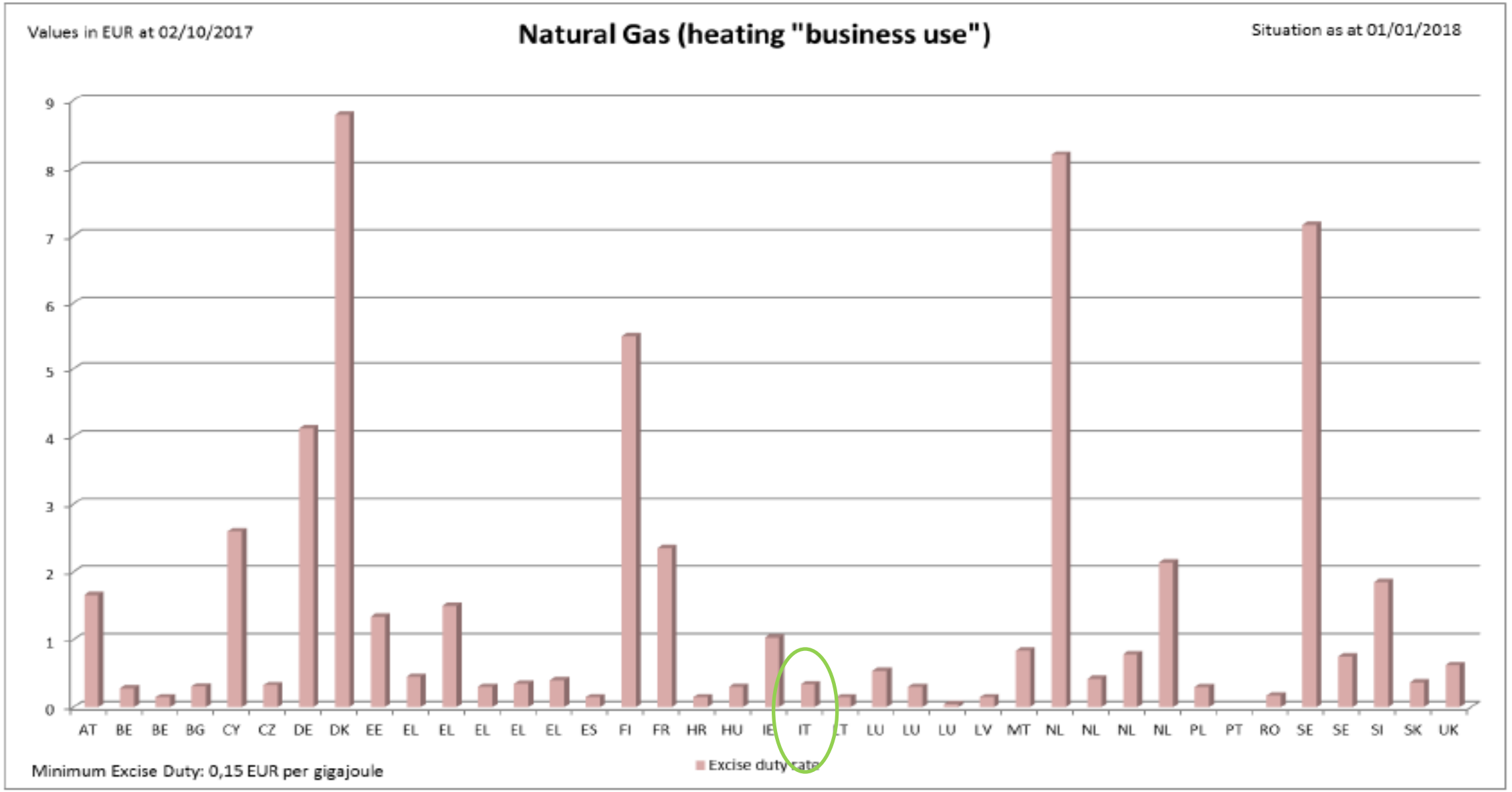

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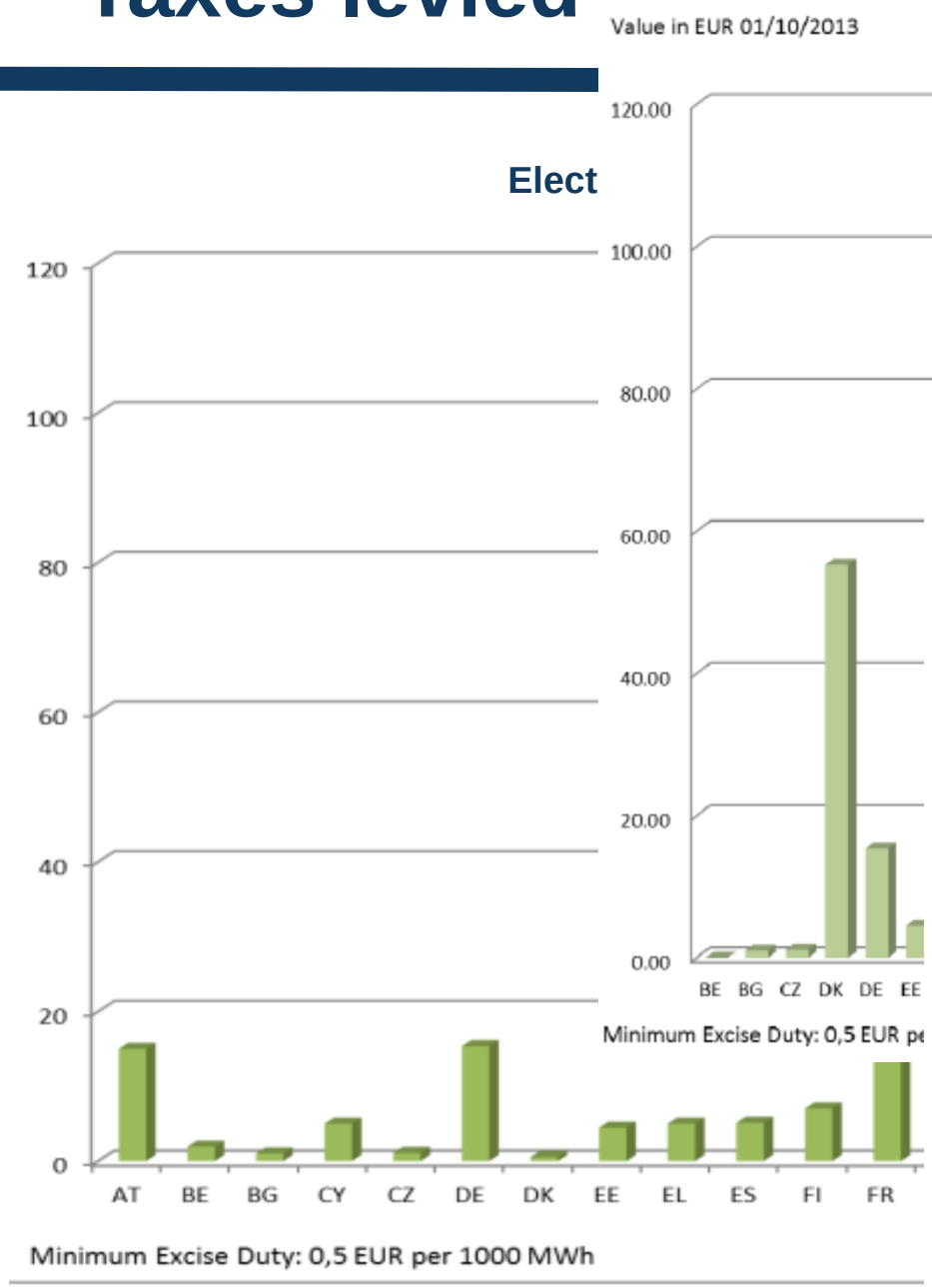

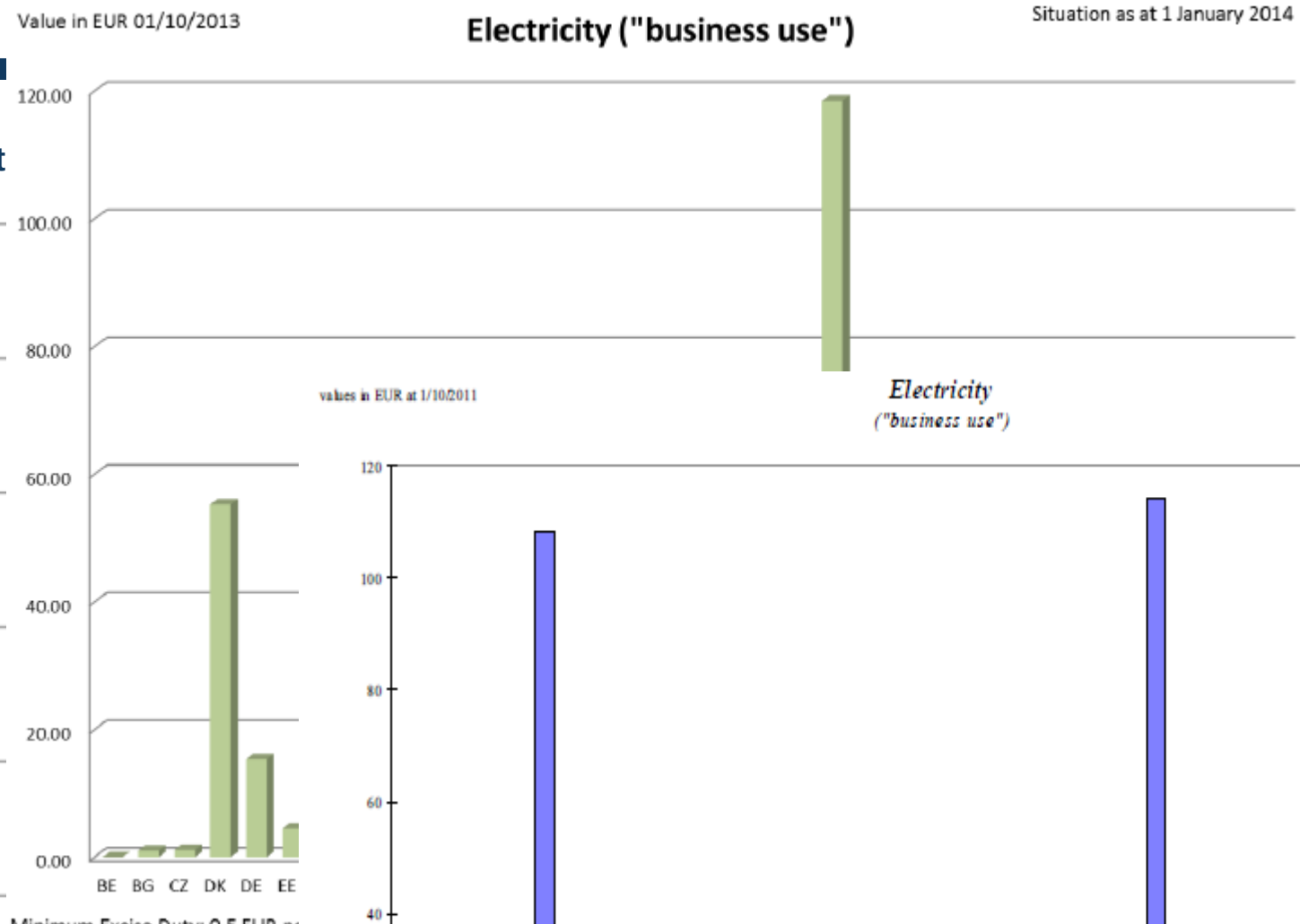

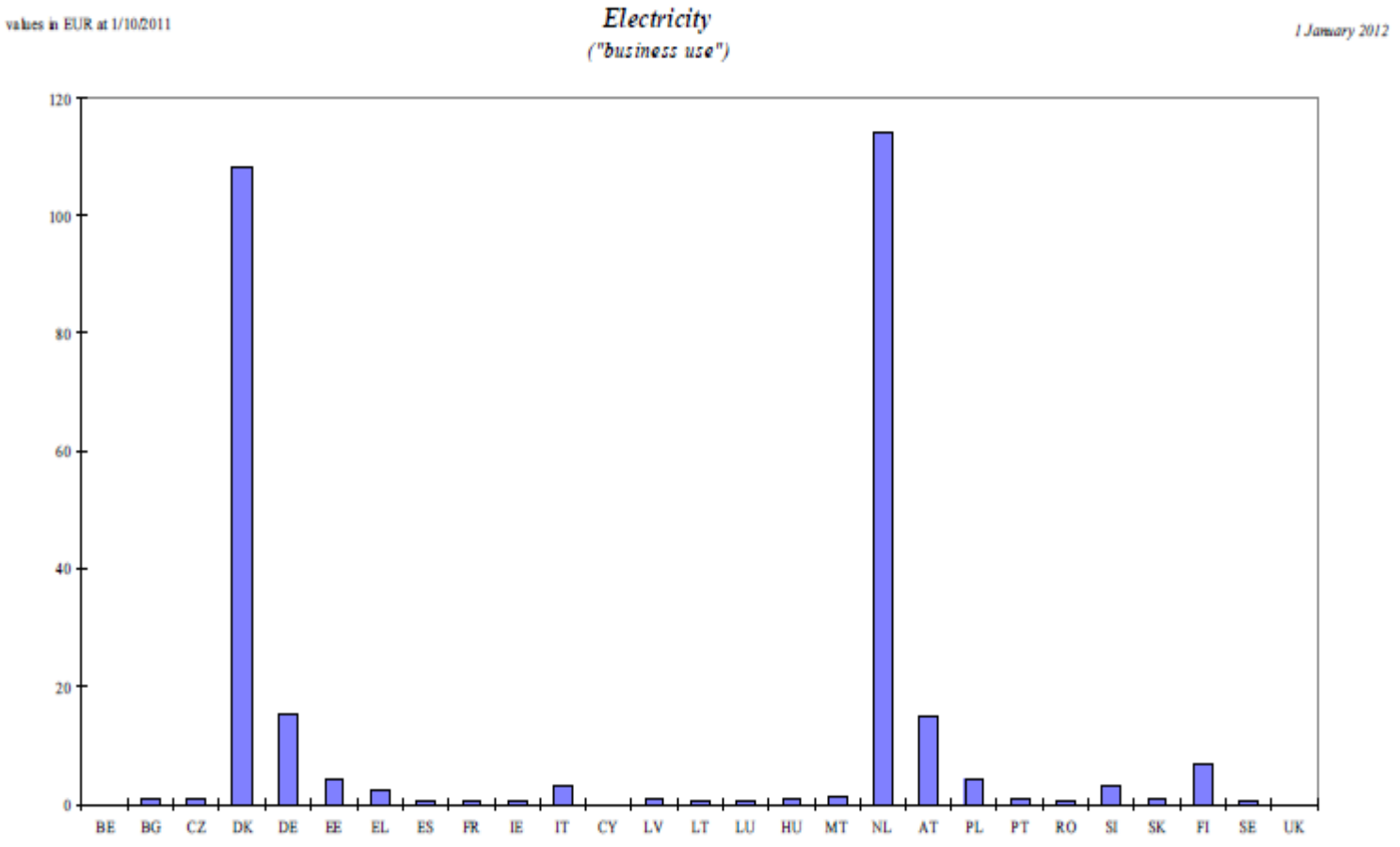

Source: EC, DG TAXUD, Excise Duty Tables – higher rate: monthly consumpt

EU – energy prices and costs – industry and services

Table 1 — Energy share of industry production costs across sectors

Examples of sectors	Energy share of production costs (range)
Average European business	0-3 %
Computers and electronics, motor vehicles, other transport equipment	1 %
Waste management and accommodation and restaurants	3-5 %
Energy intensive sectors in manufacturing *Cement, lime and plaster, Clay building materials, Pulp and paper, Glass, Iron and steel, Basic chemicals, Non-ferrous metals*	3-20 %

Source: Eurostat, Trinomics[10]

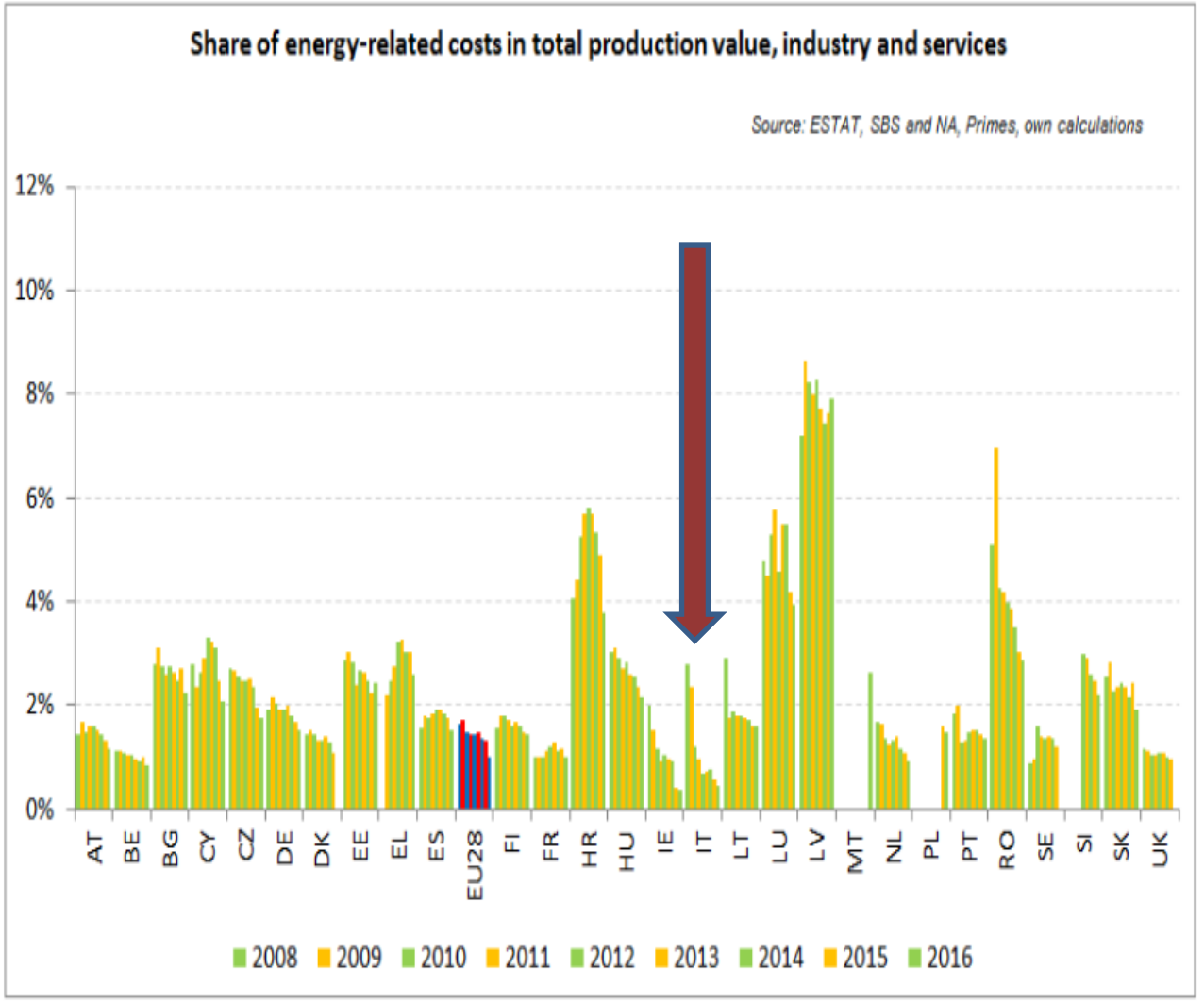

Figure 116 - Evolution of energy costs shares in production value

Source: EC, 2019, Energy prices and costs in Europe

EU – energy costs – manufacturing industry

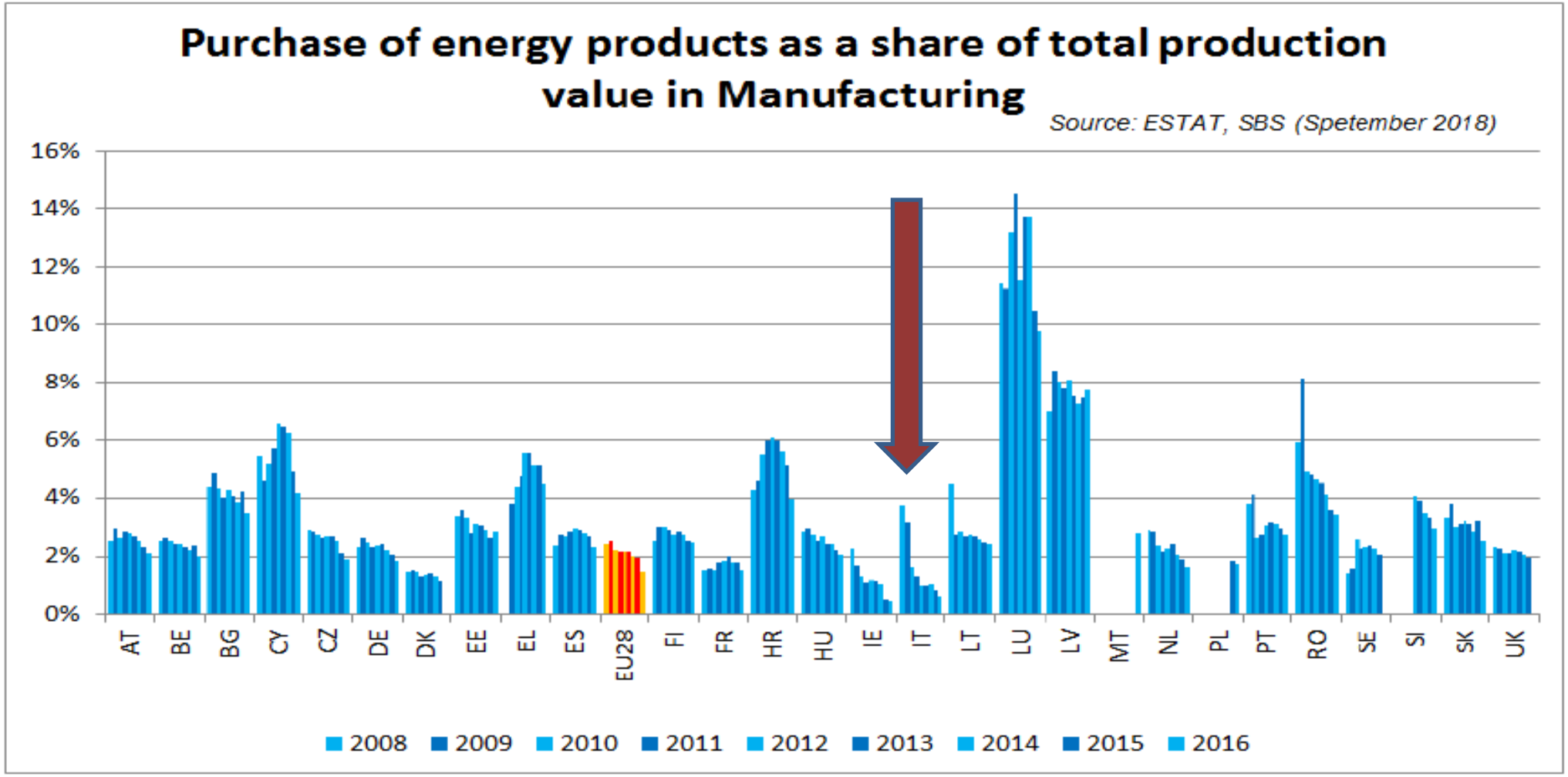

Figure 117 - Evolution of energy costs shars in production value for Manufacturing

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Source: EC, 2019, Energy prices and costs in Europe COM(2019)1 final /SWD(2019)1 final

Industrial electricty prices in Europe

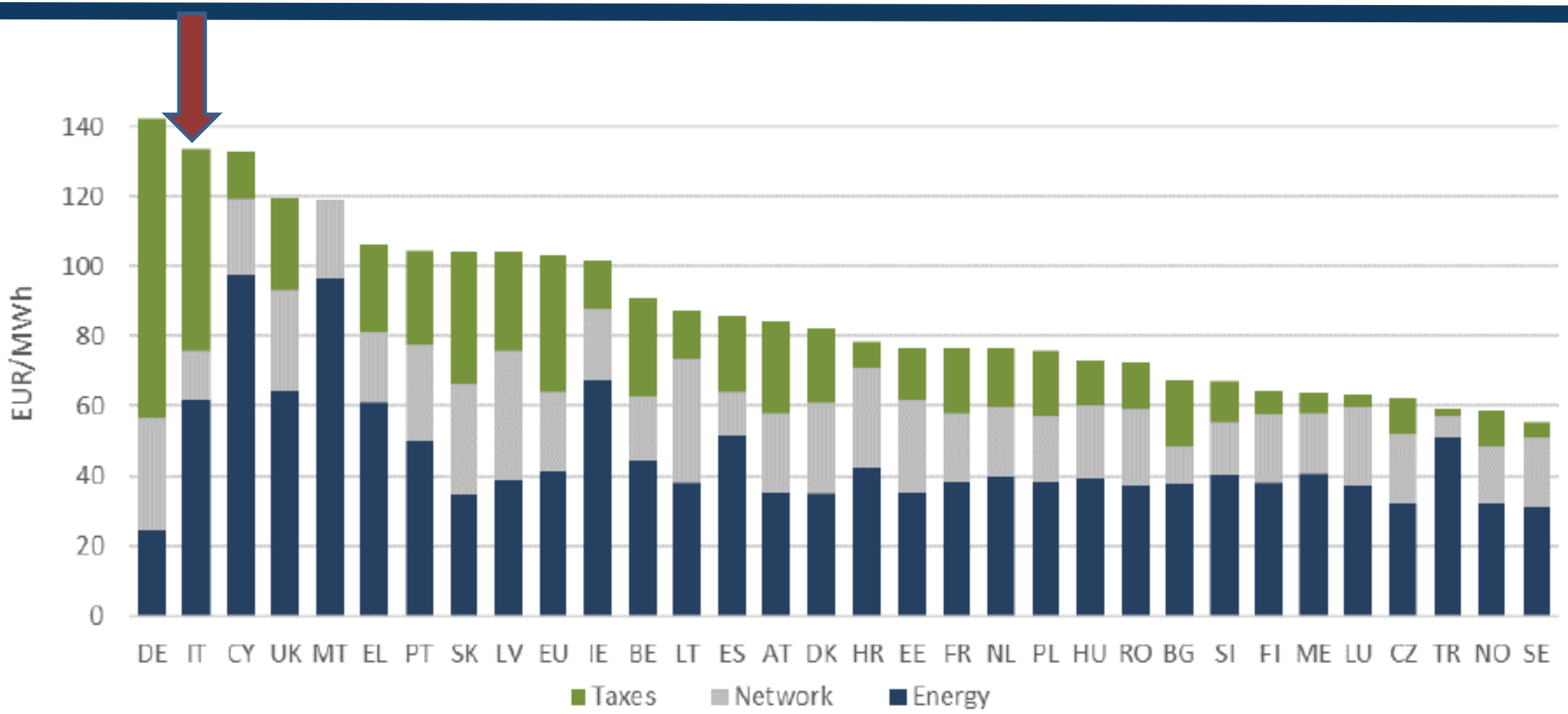

Figure 3 — Industrial electricity prices in 2017 — Source: DG ENER in-house data collection

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Source: EC, 2019, Energy prices and costs in Europe COM(2019)1 final /SWD(2019)1 final

Industrial gas prices in Europe

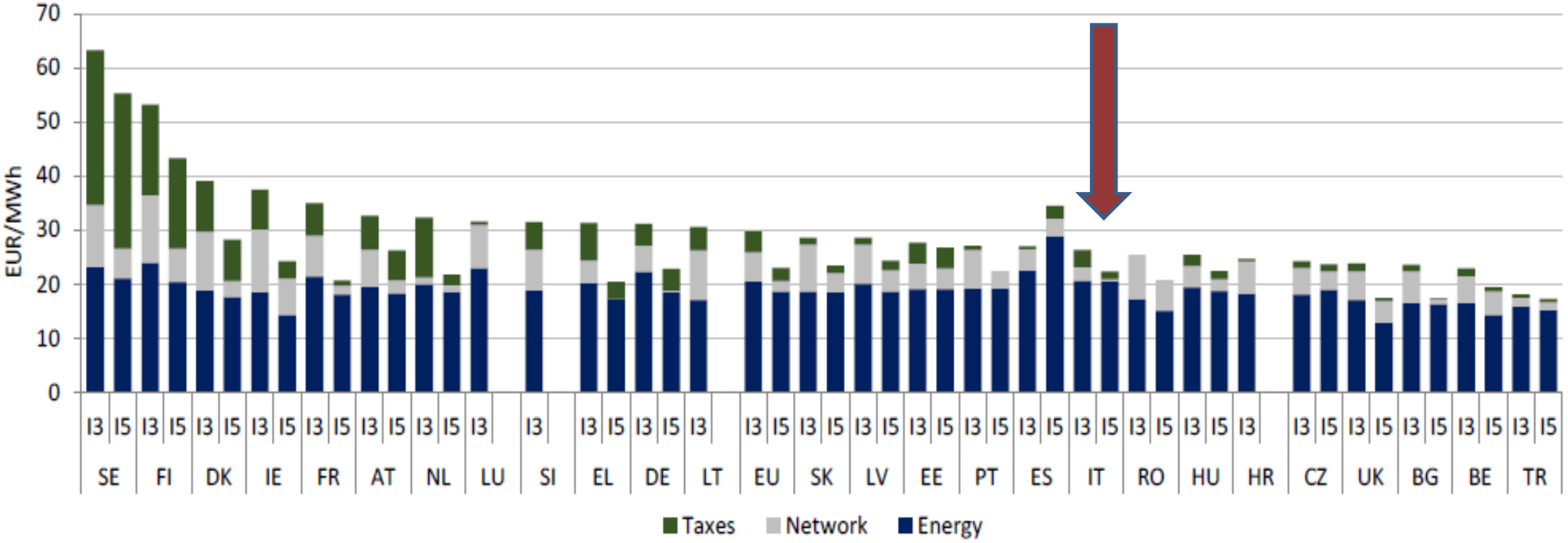

Figure 7 — Median and large industrial gas prices in 2017 — Source: DG ENER in-house data collection

I3 - annual **consumption** between 10 000 and 100 000 GJ

I5 - annual **consumption** between 1 000 000 and 4 000 000 GJ

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Source: EC, 2019, Energy prices and costs in Europe

EU ETS – indirect cost compensation/ carbon leakage

Article 10a(6) of the revised ETS Directive gives Member States the possibility to compensate the most electro-intensive sectors for increases in electricity costs as a result of the EU ETS, through national state aid schemes

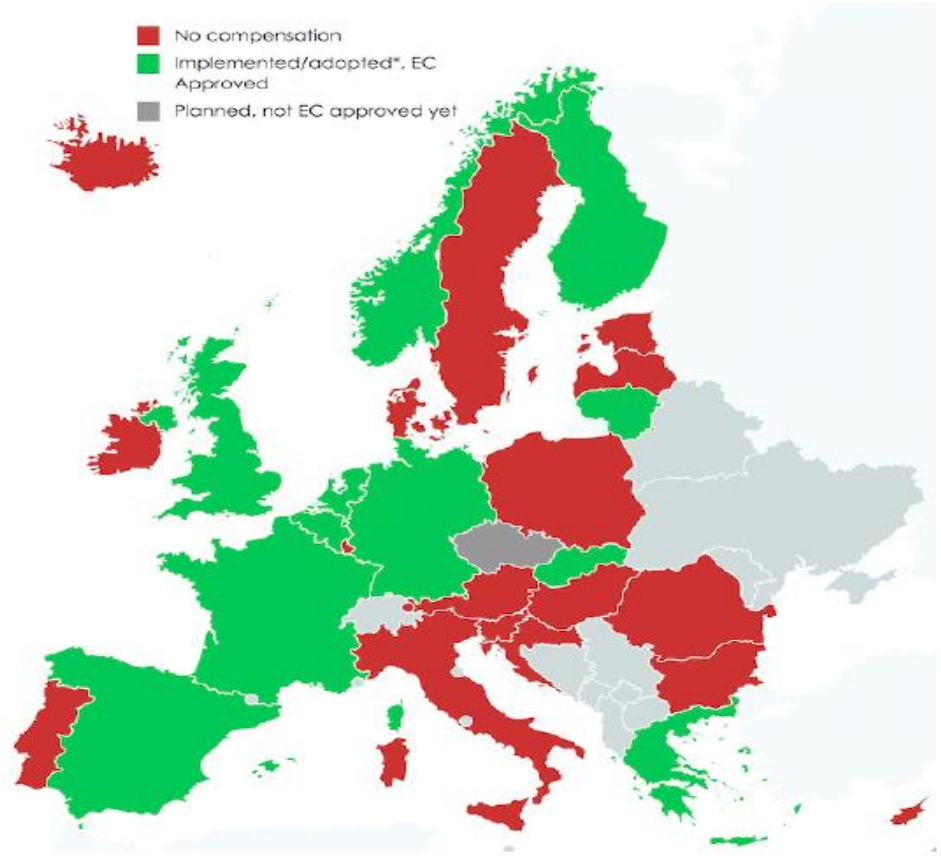
No harmonized European approach for indirect costs compensation exists, and since only a third of Member States provide compensation, there exists a distortion across Europe, as different installations face different costs based on the Member State they operate in.

Table 3. Indirect costs compensation and total auction revenues in 2016

Member State	Total compensation indirect costs	Auction Revenues	Percentage of auction revenues used
France	140,339,677.00	234,683,755	59.80%
Germany	288,723,308.06	850,000,000	33.97%
The Netherlands	45,000,000.00	142,610,000	31.55%
Finland	36,300,000.00	71,220,000	50.97%
Greece	3,845,242.00	148,050,000	2.60%
Flanders	39,383,616.43	56,917,488	69.19%

Source: Data obtained from Member States, Tieben and in 't Veld, 2017, & Maximiser, 2018

Figure 20. Map of Member States who have indirect costs compensation schemes in place



Source: European Commission, 2018

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Tax expenditure – environmentally harmful subsidies (EHS)

EC – Resource Efficiency Roadmap (2011); OECD, G20 → phasing out of environmentally harmful subsidies!

→ What is **THE** definition of environmentally harmful subsidies and **WHAT** is the current situation?

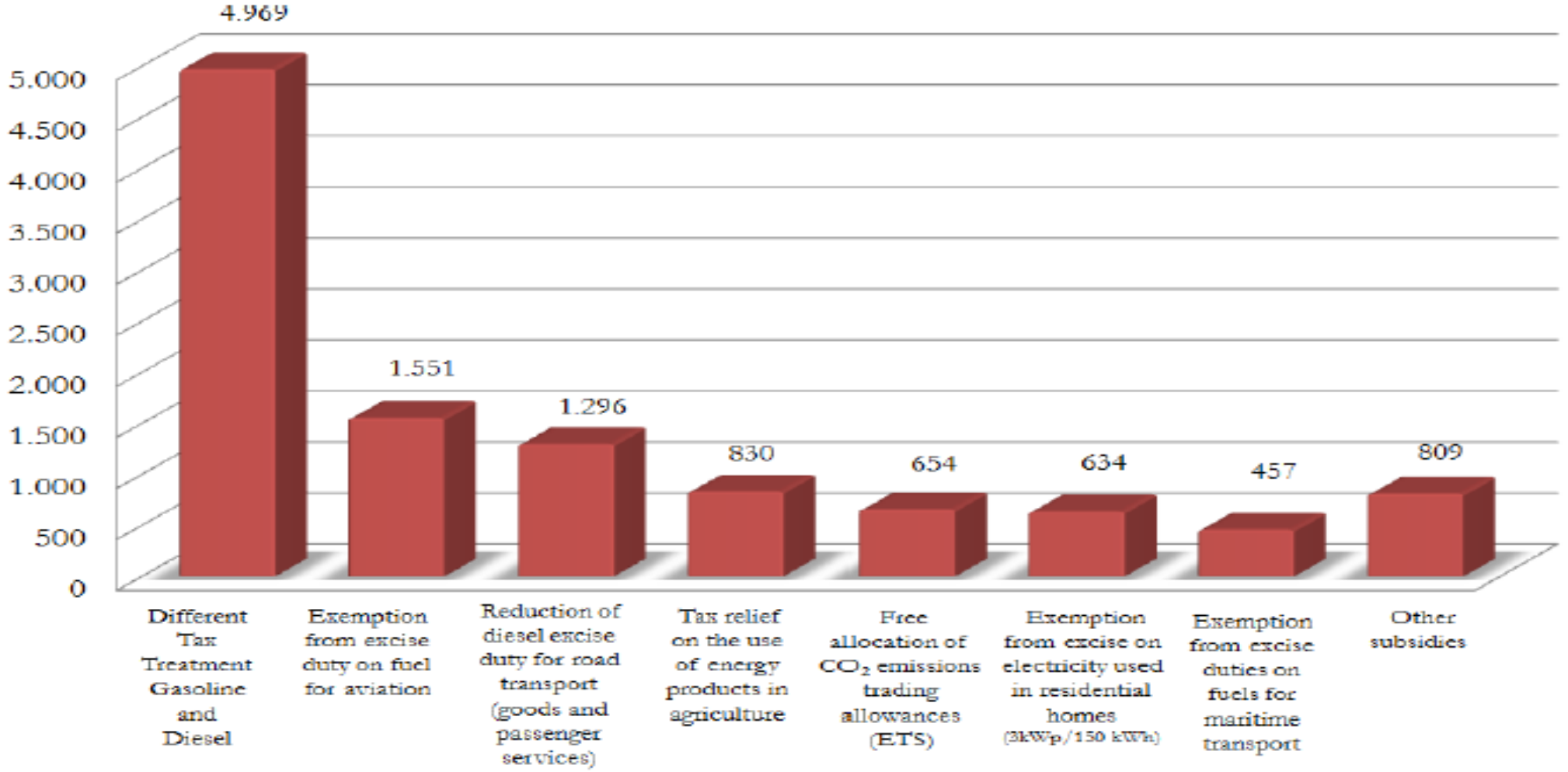
The Italian Parliament has asked the Italian Ministry of Environment, Land and Sea (MATTM) to provide a **Catalogue of environmentally friendly and harmful subsidies (**Article 68 of the Law 28th December 2015, n. 221)

According to the Law "*the subsidies are considered in their broader definition and include, among others, incentives, benefits, subsidized loans, exemptions from taxes directly related to environmental protection".*

Similar studies are done in other EU Member States!

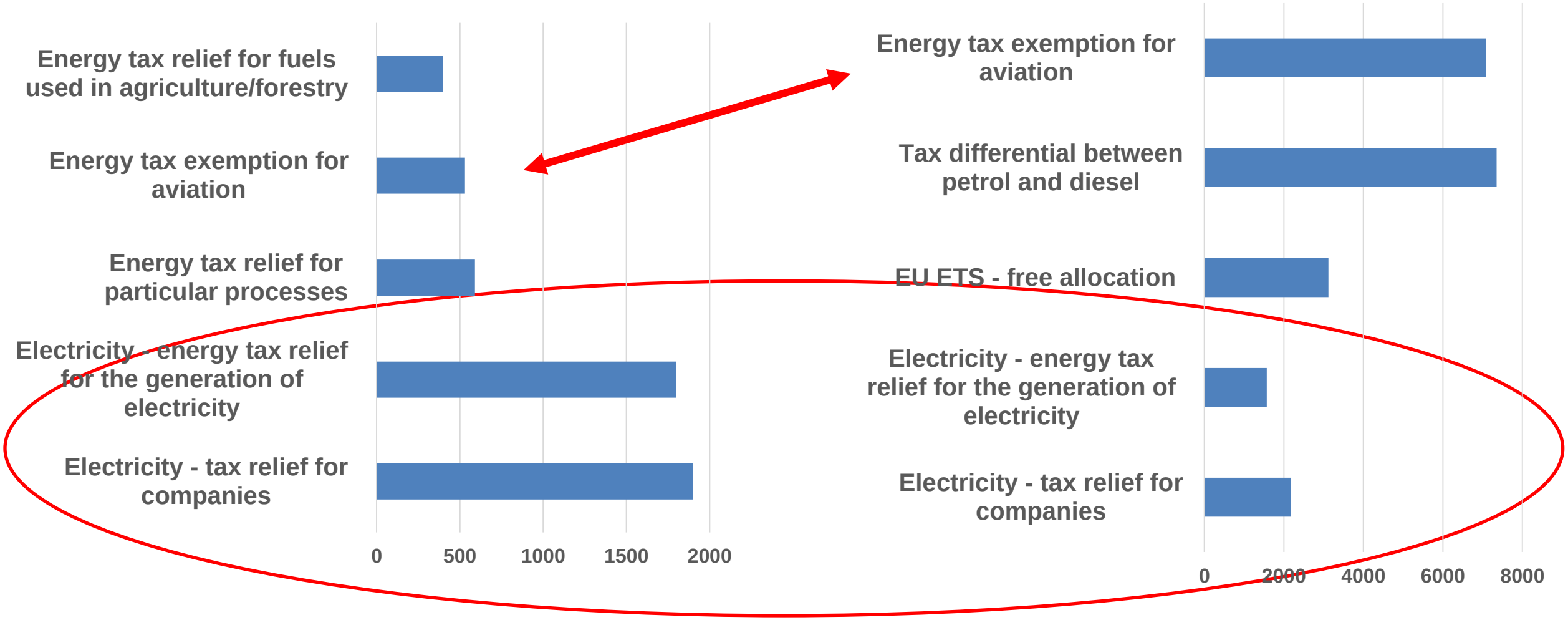
Tax expenditure – environmentally harmful subsidies

Figure 2 – Energy EHSs breakdown (millions of Euros)



Source: presentation given by Andrea Molocchi, Ministry of Environment, Land and Sea at the expert workshop: Mapping the forward Agenda and testing initial outputs, OECD, Wednesday, 20 June 2018

Tax expenditure (revenue shortfall) – Germany



Source: (million Euro)

Ministry of Finance, 25th Subsidy Report of the Federal Government, 2015 (left figure)

Environmental Protection Agency (Umweltbundesamt), 2017, Umweltschädliche Subventionen in Deutschland 2016 (right figure)

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Circular Econmy and Fiscal Policy

Circular economy envisions a shift away from a linear “take-make-dispose” model to a system where products, components and materials are reused in new cycles, thus closing the trajectories into loops.

What are the options?

- *Changing the VAT system to influence behaviour*: lower VAT on labour-intensive services incentivises repairs and reduces waste but also in the context of a resell model
  - Sweden: VAT rate reduced on repairs to bicycles, clothes and shoes reduced from 25% to 12% but also in Luxembourg in place (17% to 8%): results on studying the effectiveness of this incentive are missing; policy approach also implemented in China

- *Increases in the tax on emissions and technical material consumption*: such a higher tax reduces the consumption of non-renewable resources; the rationale is to have a level playing field with the aim of substituting fossil-based materials with recycled / renewable materials
  - Tax for non-energy use of fossil fuels; a tax for mineral oil used in plastic, rubber, painting and other chemical industry

Reflections

- Projection of rather steep increase in growth of eco-industries / environmental lead markets which depends heavily on the economic output as well as jobs in the traditional industries
- The transition to a green economy requires the greening of the whole economy
- Fiscal policy measures are crucial components of the transition process
  - large variation of energy taxation between EU Member States
  - energy prices and costs (including tax) differ between economic sectors and EU Member States
  - high energy taxes are not necessary the reason for high energy costs (as a share of total costs)
- Options of fiscal instruments for promoting the circular economy are in place but more to be done!

Thank you for your attention!

Stefan Speck
Stefan.speck@eea.Europa.eu

www.eea.europa.eu

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