European
Region Conference
Madrid-Spain
11-13 March, 2026

Emerging trends in international taxation: Europe and its global connections

Reina Sofía Museum

Environmental Taxation from a European Perspective

12 March 2026 – Panel II

European Region Conference
Madrid-Spain
11-13 March, 2026

Chair

Marta Villar Ezcurra

Panelists

María Muñoz Viejo

Amparo Grau Ruiz

Nina Leggard Kristensen

Berthold Welling

Structure of the session and main topics

1. Introduction
2. Part A: Understanding the present through the past
3. Part B: Looking ahead from the present
4. Conclusions

Introduction

Starting point: Letta and Draghi reports

- **Letta Report (April, 2024):** A swift agreement on the Energy Taxation Directive is necessary to provide the right incentive to renewables energy across the Single Market. A European approach to tax incentives is necessary.

- **Draghi Report (September, 2024):** A Wake-Up Call. The Report identifies energy taxation as a key driver of Europe's competitiveness gap.

Introduction

Main topics:

- Carbon taxes & green tax reforms.
- The Energy Taxation Directive (ETD) & recent EU policy developments.
- The interlinks between carbon taxation and CBAM: addressing carbon leakage.
- Green tax incentives & State aid law.
- Environmental taxation and competitiveness: the disproportionate burden on the electricity sector.
- New frontiers: taxing agricultural emissions.

Part A: Understanding the present through the past

Part A: Understanding the present through the past

- **Concept**

Environmental taxes are special taxes that are levied on environmentally harmful bases. They are divided into taxes on **energy** (e.g. taxes on petroleum products, or taxes on the use of energy), taxes on **transport** (mainly vehicle duties and registration duties) and taxes on **pollution** and taxes on (the use of natural) **resources**. It should be noted that taxes on fuels for vehicles etc. are accounted for as energy taxes. The revenues from VAT on environmentally harmful products are not considered to be environmental taxes since they have no discriminating effect.

Source: EC,1998

- **Purpose**

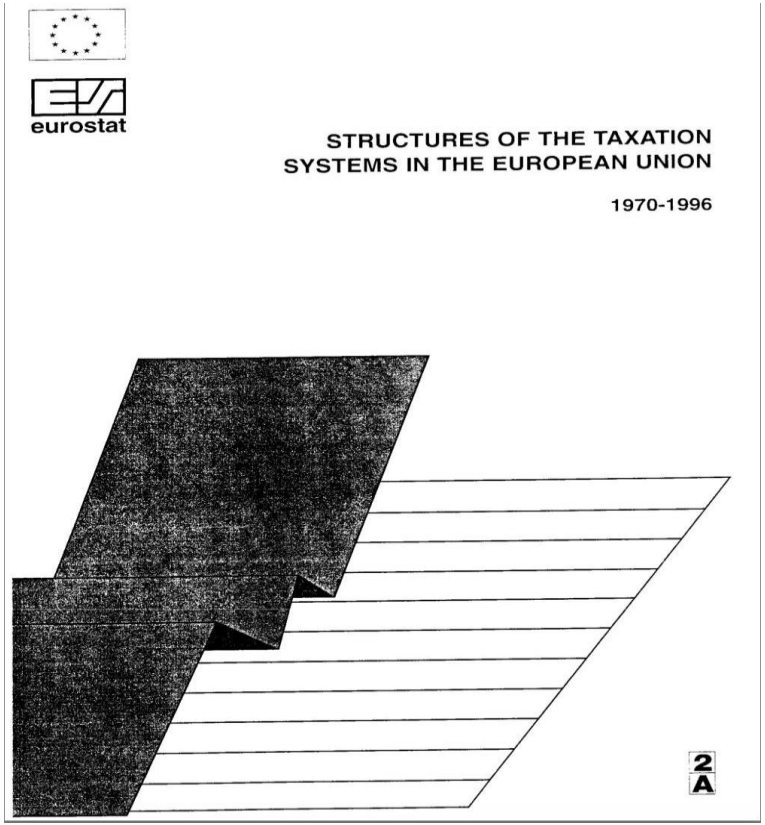
Taxation is a powerful policy instrument to price negative externalities. **Externality-based taxes can induce a change of behaviour**, regarding products or activities that generate uncorrected externalities.

Such taxes typically include **environmental taxes** (targeting energy, transport, resources, and pollution), as well as health taxes.

Externality-based taxes mostly concern **consumption** tax bases, but in some cases (e.g., registration of company cars) also capital bases.

Source: EC,2025

Part A: Understanding the present through the past

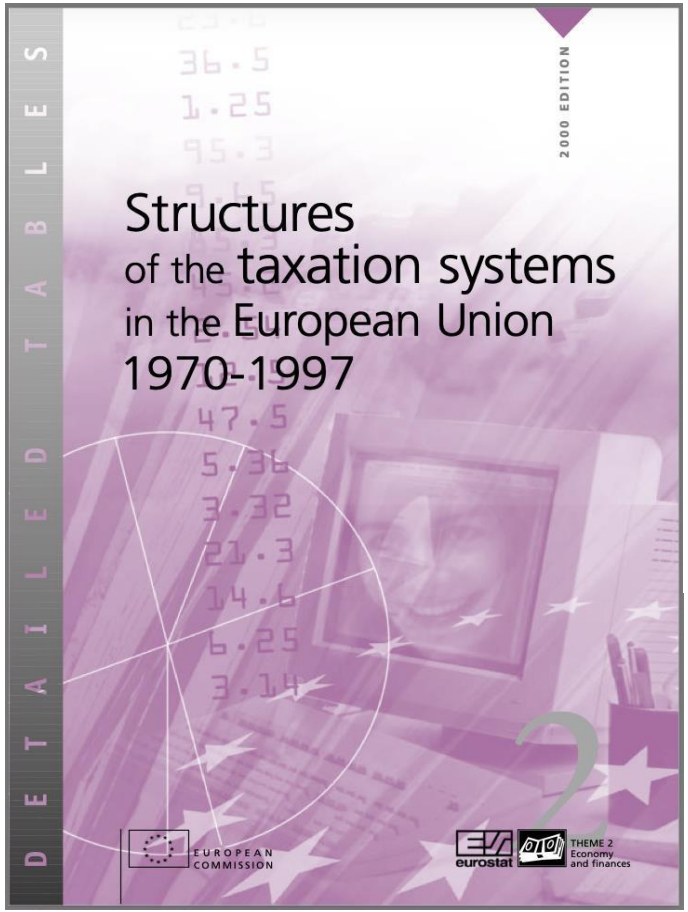


3.5. Energy and Environment

The taxation of energy has only slightly increased since 1970. Until the mid-1980s the energy tax/GDP share remained quite stable at around 1.7%, whereas the share in total taxation decreased by more than one percentage point to around 4%. Since then a moderate but steady increase can be observed. In 1996 the share of energy taxation had again reached 2.2% of GDP and 5.1% of total taxation. Countries with comparatively high energy taxes are Italy, Luxembourg, Portugal and Sweden, whereas energy taxation is below the EU average in Belgium, Austria and the Netherlands. The most important energy taxes are excise duties on mineral oils.

The fiscal importance of environmental taxes (taxes which are levied on activities or products which are harmful to the environment) is rather low in most Member States of the EU. The total share of these taxes in GDP is somewhat more than half a percentage point, their share in total taxation below 2%. Moreover, there have been no significant changes in the trend of these taxes over recent years. Only in the Netherlands and in Denmark are environmental taxes on a larger scale, in both cases as a result of comparatively high taxes on the use of cars (vehicle registration duties, taxes on vehicles, etc.).

Part A: Understanding the present through the past

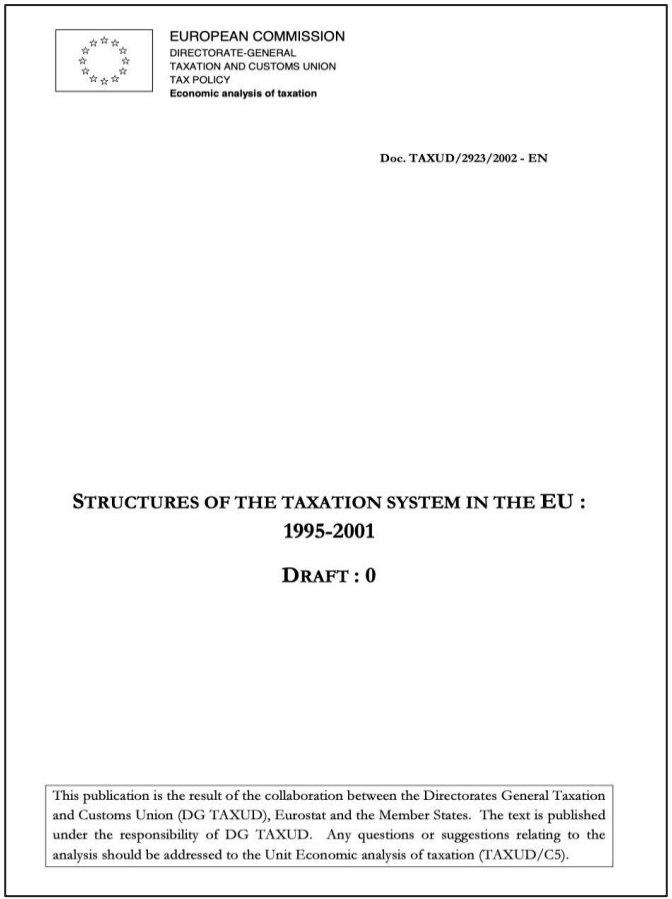


3.6. Environmental Taxes

Over the last seventeen years, revenues from environmental taxes have increased from 2.2% of GDP to 2.9% (EU-15). This corresponds to an increase from 5.8% of total taxation to 6.7%. This increase is almost exclusively the result of higher energy tax revenues (mainly excise duties on fuels) which increased from 1.6% of GDP to 2.2%. The taxation of transport (e.g. annual taxes on vehicles or vehicle registration duties) remained almost constant when measured as a % of GDP (0.5%) and even slightly declined as a % of total taxation (of course, transport is indirectly taxed via energy taxes, e.g. fuel taxes). Other environmental taxes, e.g. taxes on pollution or the use of natural resources, are negligible at the European level (EU-15).

They account for less than 0.3% of total tax revenues. Only in the Netherlands do these taxes have some fiscal importance.

Part A: Understanding the present through the past



EUROPEAN COMMISSION
DIRECTORATE-GENERAL
TAXATION AND CUSTOMS UNION
TAX POLICY
Economic analysis of taxation

Doc. TAXUD/2923/2002 - EN

STRUCTURES OF THE TAXATION SYSTEM IN THE EU : 1995-2001

DRAFT : 0

This publication is the result of the collaboration between the Directorates General Taxation and Customs Union (DG TAXUD), Eurostat and the Member States. The text is published under the responsibility of DG TAXUD. Any questions or suggestions relating to the analysis should be addressed to the Unit Economic analysis of taxation (TAXUD/C5).

- **Green tax reforms**

In the 1990s, several Member States implemented **comprehensive green tax reforms** (Finland, Sweden, Denmark, the Netherlands, Germany, Italy, Austria and the United Kingdom).

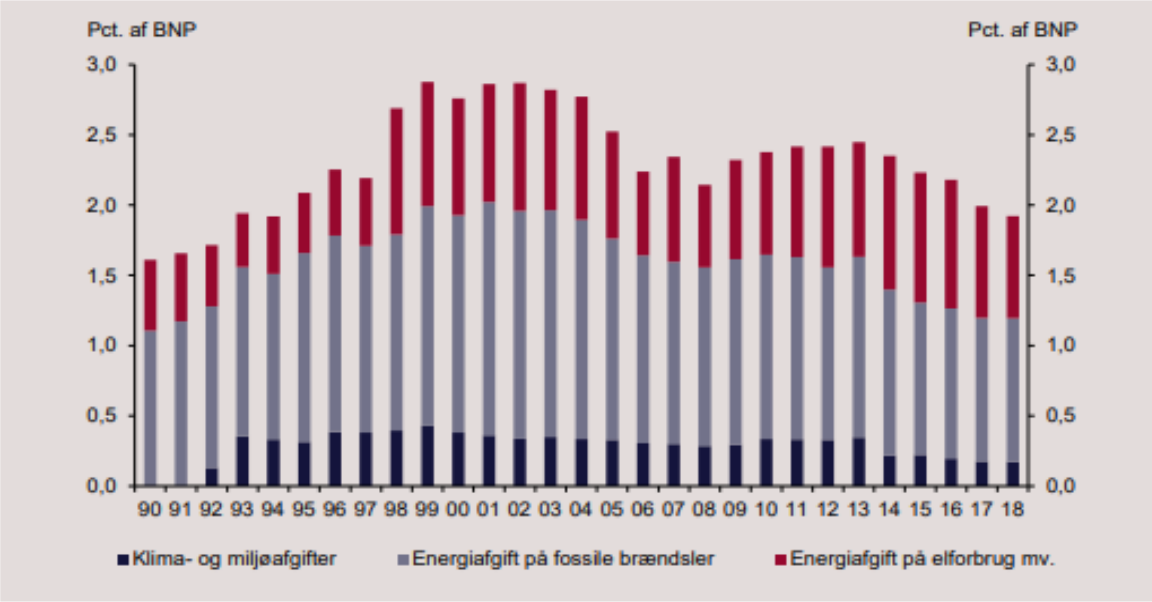
The "**Nordic" countries** were forerunners in introducing green tax reforms.

Green tax reform in Denmark in the 1990's

- In 1990, Energy 2000 Action Plan: reduction of CO2-emissions by 20% before 2005 (in comparison with 1988- level).
- In 1992, Denmark introduced a carbon tax as part of its climate strategy, marking a shift towards green taxation and complementing the energy tax on fossil fuels that was introduced during the 1970 (as an energy efficiency measure).
- Supplemented by subsidiaries for electricity produced by input of biomass, wind or natural gas to incentivise the shift away from coal.
- In 1995, a tax on SO2 was introduced.

Part A: Understanding the present through the past

Green tax reform in Denmark in the 1990's: effects on tax revenue 1990-2018

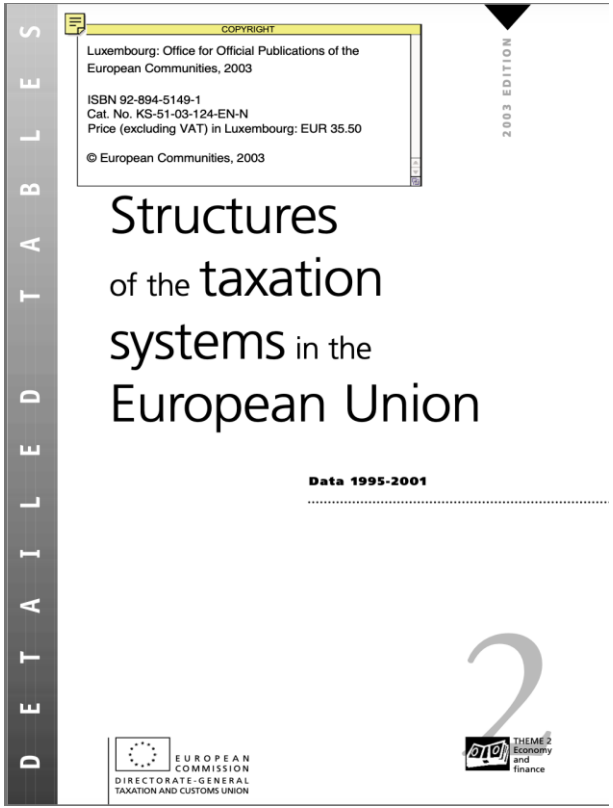


Note: Climate and environmental taxes include taxes on carbon dioxide (CO_2), sulphur (SO_2) and nitrogen oxides (NOX). Energy taxes on fossil fuels include taxes on petrol, oil products, coal, gas and waste (but not the equalisation tax on diesel vehicles). Energy tax on electricity consumption, etc. also includes the PSO constribution [abolished in 2021].
Source: Skatteøkonomisk Redegørelse 2019, Danish Ministry for Taxation, p. 166.

Part A: Understanding the present through the past

- **Double dividend approach**

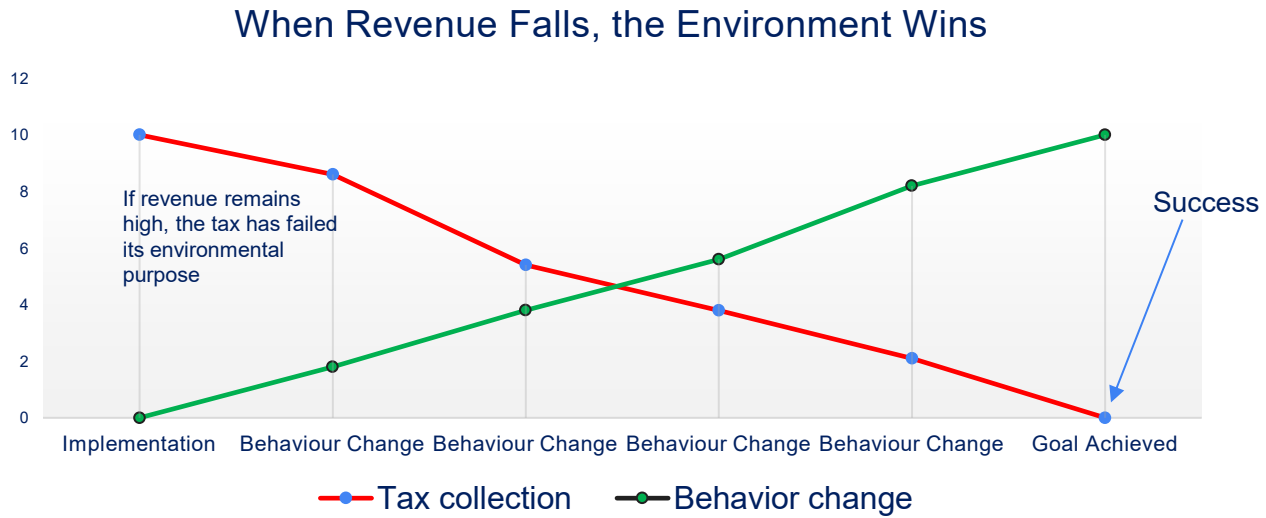
In some Member States, new green taxes were introduced (or existing indirect taxes were increased) to finance, at least partly, the reduction of the tax burden on labour income.



Part A: Understanding the present through the past

Challenges

- Many "environmental" taxes are purely **revenue-driven** and **fail** to change behavior (e.g., Law 15/2012 in Spain, taxes on electricity generation).
- Taxes should **internalize** environmental costs and shift behavior, **not serve as a revenue pillar**; their collection should tend to zero if they achieve their purpose.

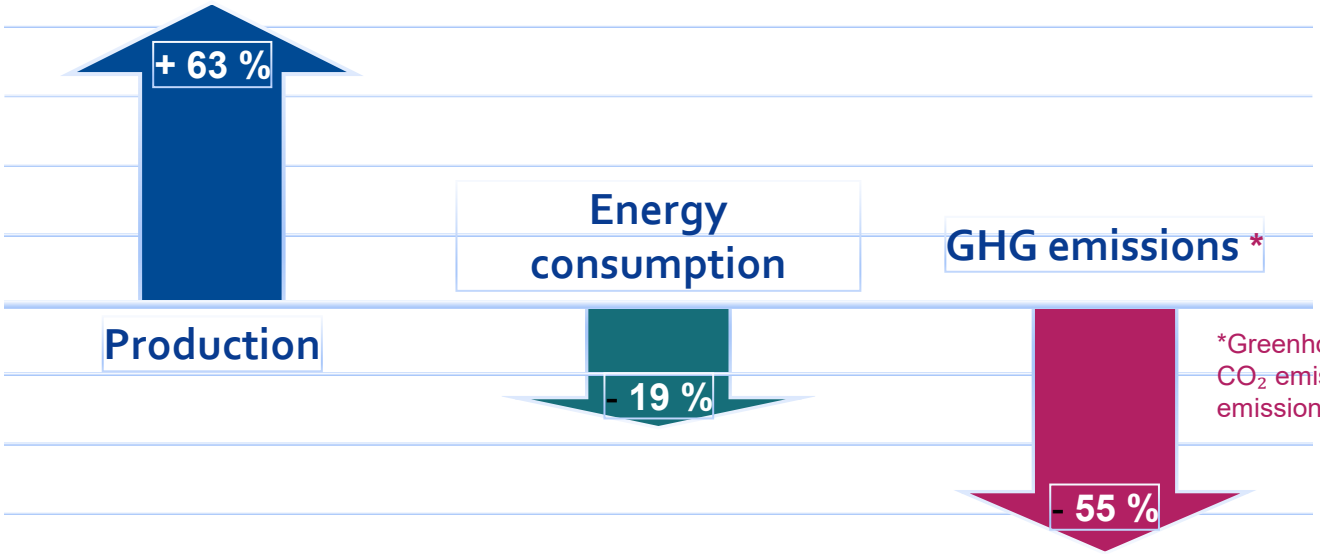


A successful environmental tax is one whose revenue tends towards zero

Part A: Understanding the present through the past

Challenges - Efficiency targets

- What has been achieved?
- Progress to date: 1990–2020, illustrated by the **chemical industry**.



Part A: Understanding the present through the past

Positive developments

- **Revision of the ETD "Fit for 55" package** (July, 2021): Aims to harmonize taxation of energy products with EU energy and climate policies. Updating list of taxable energy products, taxing GJ rather than volume, restructuring minimum tax rates and promoting the use of clean technologies.
- **Clean Industrial Deal** (March, 2025): favorable fiscal framework for electrification and grid infrastructure to promote decarbonization.
- **Affordable Energy Action Plan** (March, 2026): to reduce national taxes on electricity generation, avoid double taxation on energy storage, remove clean energy deployment levies from bills, and lower VAT and electricity tax rates.

Part A: Understanding the present through the past

Energy & Carbon Taxation: Danish Experience

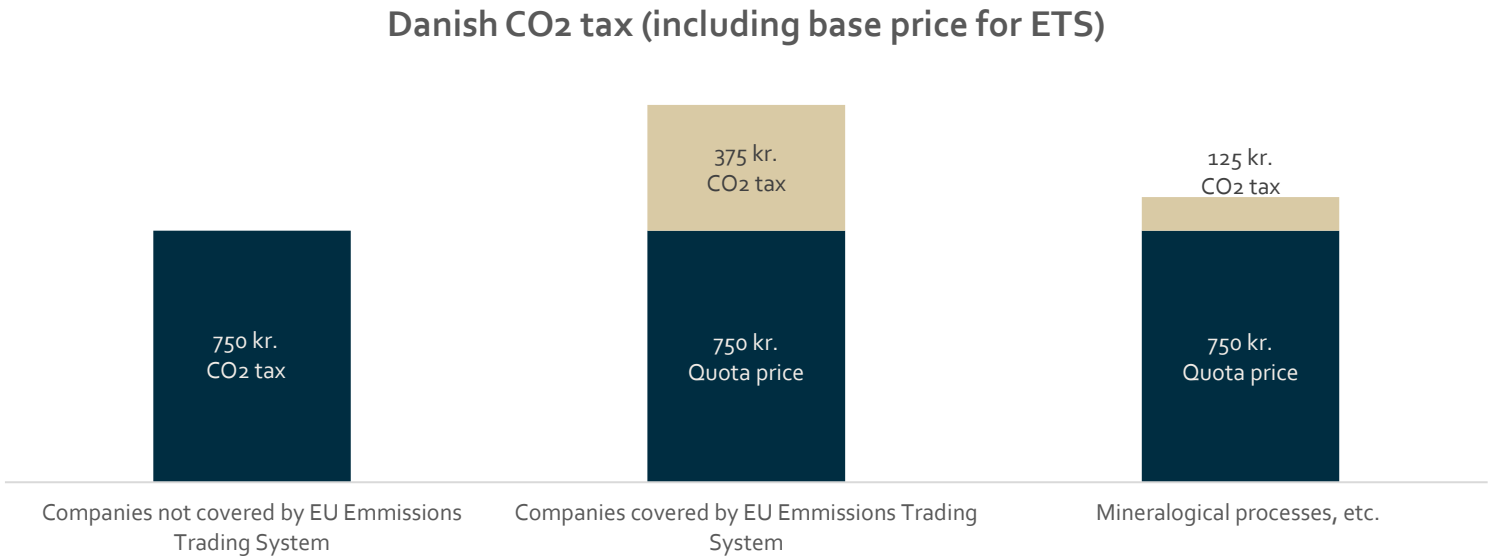
- A comprehensive taxation framework demonstrates Denmark's commitment to using **fiscal policy** as one of the key instruments in achieving its climate goals whilst aiming to maintain competitiveness in the renewable energy sector.

- As per 2025, the Danish policies are in place to meet the **70 % target** include a system of CO_2 equivalent taxation that covers **89 % of total emissions**, including non-fossil fuel emissions.

- With effect from 1 January 2025, the Green Tax Reform for the Danish industry sector has strengthened the Danish carbon price signal considerably by making substantial changes to existing **CO_2 taxes and energy taxes**, and by introducing a new CO_2-equivalent emissions tax for companies covered by the EU Energy Trading System. Further, the general electricity tax rates (output taxation) are lowered.

Part A: Understanding the present through the past

Energy & and Carbon Taxation: Danish Experience



Part A: Understanding the present through the past

Energy & Carbon Taxation: Risks of carbon leakage

- **Efficient carbon** taxes may create risks of carbon leakage.
- **Carbon leakage** occurs either when companies move carbon-intensive production abroad to countries where less stringent climate policies, or where internally produced products get replaced by more carbon-intensive imports.
- CBAM counters carbon leakage on EU level by ensuring that the embedded carbon emissions generated in the production of certain imported goods is priced at the import to the EU.
- Imports are charged on their **carbon footprint in order to** align with the average price of permits traded in the ETS.
- Barring carbon leakage at national level in EU Member States may be achieved by way of **targeted incentives**.

Part A: Understanding the present through the past

Energy & Carbon Taxation: Link to subsidies

- The **fiscal policy** should accordingly be seen in context with various subsidies and compensation schemes for certain sectors and for green technology.
- **Examples:**
  - The EU Recovery and Resilience Facility provides funding to achieve the EU target of climate neutrality by 2050.
  - National "green investment windows" with accelerated depreciations or super deductions (e.g., in Denmark, a deduction of 108 % applies with effect for 2025 and 2026).
  - National funds which provides funding (e.g., for the sectors having the highest level of difficulties in relation to the green transition or to new technologies such as CCS).

Part B: Looking ahead from the present

Part B: Looking ahead from the present

Green incentives and environmental taxation: EU State aid

- Incentives in environmental taxation which are promoting the green transition may possibly take many forms and be very different in their designs.
- Some incentive schemes might entail State aid why article 107 and 108 TFEU are to be complied with, including requirements for prior approval (save for GBER), reporting and transparency requirements.
- The requirements for tax schemes should be carefully examined already during the design phase to ensure that all compliance requirements are met.
- Consequence in case of non-compliance: The negative impact on competition needs to be restored in case of illegal aid why the aid needs to be recovered (subject to a limitation period of 10 years).

Part B: Looking ahead from the present

Green incentives and environmental taxation: To differentiate or not to differentiate?

- The design choices are determining whether the initiative entails State aid or not. The determining factor in the context of environmental taxation is usually whether the initiative leads to a selective advantage.
- **Examples:**
  - a reimbursement of CO_2-tax for fossil fuels to the extent that there has been capture and geological storage of CO_2 from emissions from the burning of the fuel at the company (CCS).
  - a differentiated electricity tax with a very low level for electricity used for industry processes (close to zero) as designed on basis of article 5 in the ETD (e.g., differentiated taxes may be applied between business and non-business use for electricity).
  - a reduction of the CO_2 tax rate to 33 % for certain CO_2 intensive undertakings applicable during a limited period of e.g., 10 years to mitigate the risk of carbon leakage.

Part B: Looking ahead from the present

EU State aid framework

Awareness of the variations in the applicable framework is key – different requirements for Member States and business sides.

- GBER (currently under revision in line with the EU Competitive Compass and the Clean Industrial deal).
- State aid guidelines – distinction between schemes inside or outside the ETD.
- Clean Industrial Deal State Aid Framework (CISAF).

Part B: Looking ahead from the present

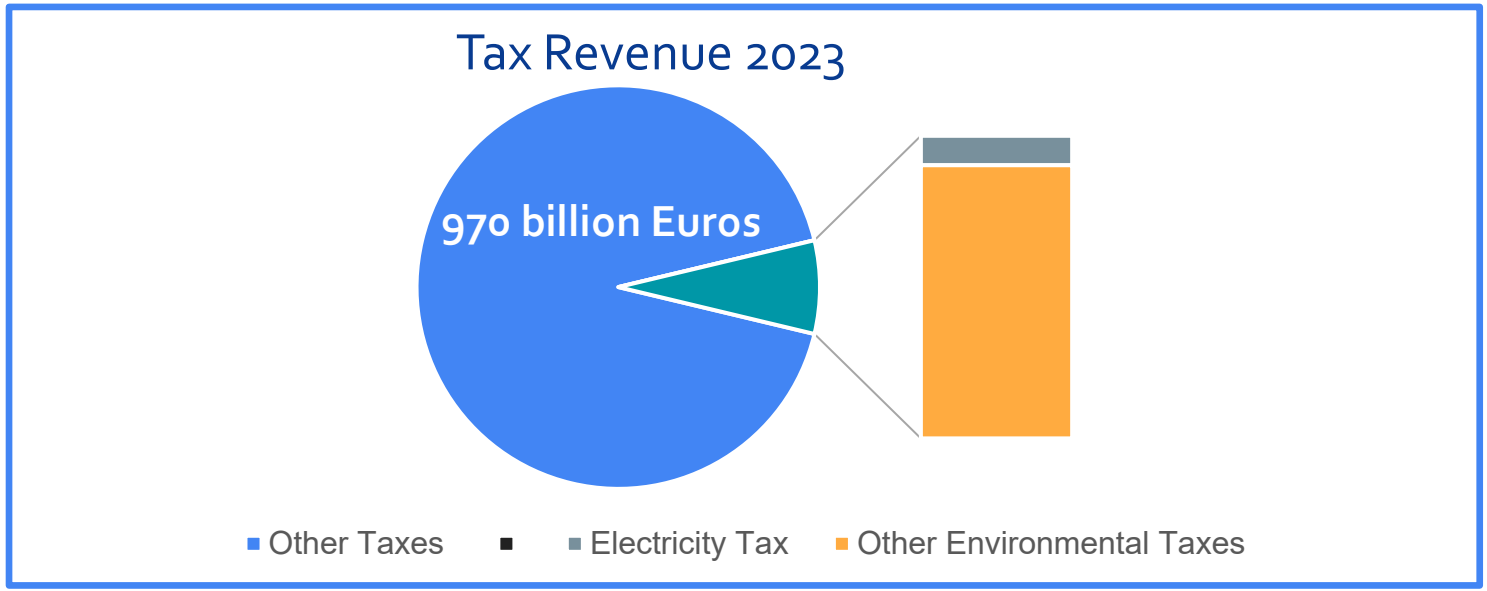
Objectives of environmental taxes *vis-à-vis* competitiveness

- **Outlook**: Environmental taxes - how to keep momentum?

Part B: Looking ahead from the present

Tax Revenue Germany

- Environmental taxes account for only about **7 % of total tax revenue**.
- But additional costs, such as network charges, **increase energy costs.**



Part B: Looking ahead from the present

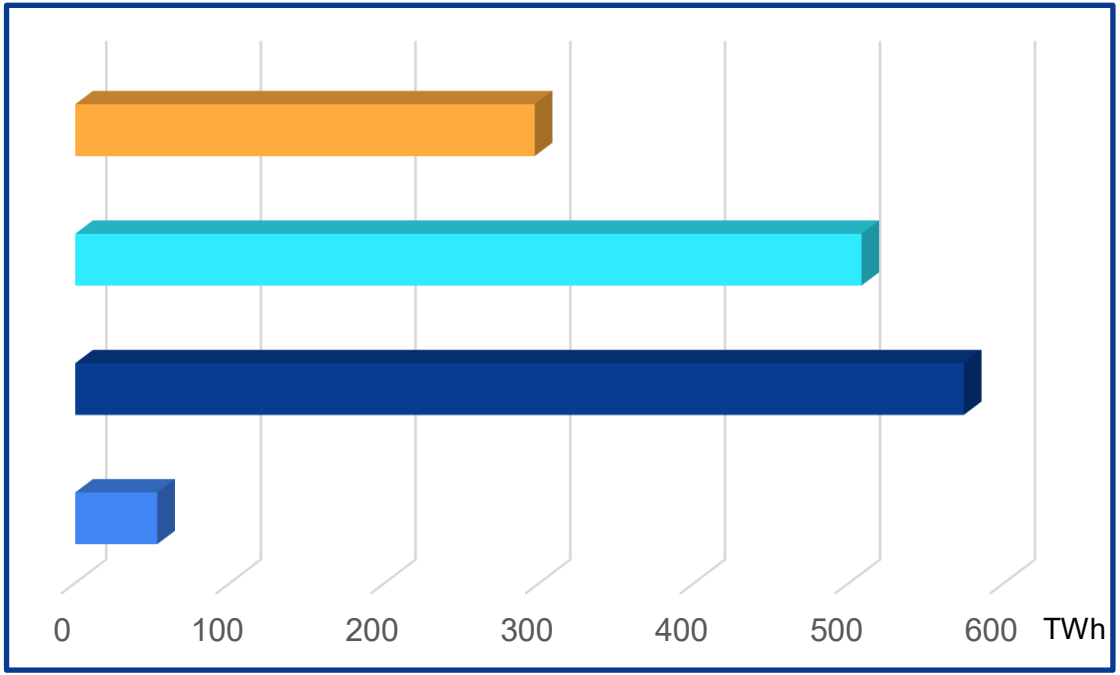
Challenges – Managing electricity demand throughout the transformation process

Electricity demand chemical industry
(CO2 neutral, year 2045; with consideration of the hydrogen strategy)

Electricity demand chemical industry
(CO2 neutral, year 2045; Without taking the German Federal Government's hydrogen strategy into account)

Electricity consumption all of Germany
(year 2021)

Electricity consumption chemical industry
(year 2021)



Part B: Looking ahead from the present

Challenges

- The **importance of electricity** extends far beyond the energy sector itself: decarbonization of transport, heating, and industry depends on the availability of large additional amounts of greenhouse-gas-free electricity.
- **Electric applications** such as electromobility, heat pumps, or electricity-based industrial processes are considered the most efficient ways to reduce emissions.

➔ Electricity supply becomes the foundation of a climate-neutral overall economy!

Part B: Looking ahead from the present

Electricity sector bears a disproportionate and often unjustified green tax burden (Endesa case, which primarily operates in Spain)

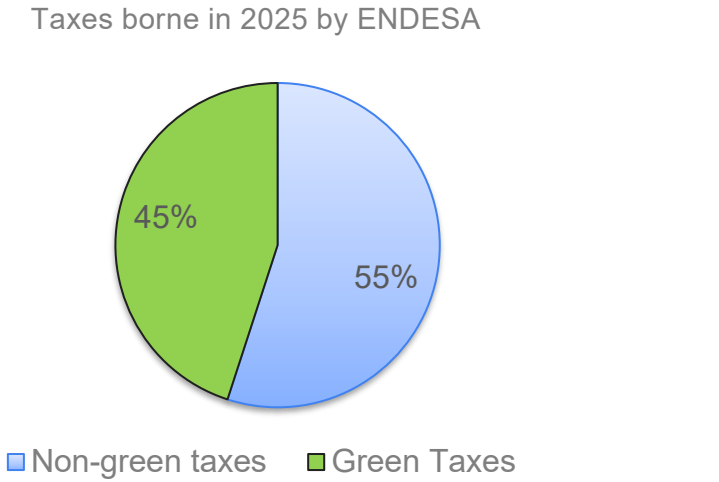
ENDESA		2025
Total Tax Contribution FY2025		**4.996 M€**
Taxes collected in 2025		**2.593 M€**
Withholding Taxes		303 M€
VAT		1.613 M€
Excise duties		677 M€
Taxes borne in 2025		**2.403 M€**
Non-green Taxes		**1.321 M€**
State Taxes	Corporate Income Tax	863 M€
	Employer´s social security contirbuion	154 M€
	Others	3 M€
Regional Taxes	Tax on the utilization of airspace, soil and subsoil	206 M€
	Property Tax	59 M€
	Business Activity Tax	30 M€
	Others	6 M€
Green Taxes		**1.082 M€**
State Taxes	Tax on value of electricity generation (law 15/2012)	437 M€
	Tax on nuclear fuels (law 15/2012)	125 M€
	Hydraulic charge tax (law 15/2012)	45 M€
	Tax on nuclear services (Enresa fee)	256 M€
Regional Taxes	Several taxes for environmental damage tax from electricity generation facilities: nulcear, solar, wind, hydroelectric and for CO2 emissions	219 M€

55%

45%

https://www.endesa.com/es/nuestro-compromiso/transparencia

Environmental taxes paid by Endesa hold at **45% of the total tax burden**, reaching a **historic peak in 2025** — mainly driven by the Tax on the Value of Electricity Production which entails a 7% levy on generation revenues from any technology.



Part B: Looking ahead from the present

Environmental taxation and its impact on the competitiveness and policy coordination: insights from the electricity sector

- **Sectoral and technological discrimination**: unjustified discrimination exists both between sectors (electricity vs. transport) and between energy carriers (electricity vs. gas).
- **Impact on competitiveness**: high fiscal costs raise energy prices in Europe vs. the US or China, creating a structural disadvantage.
- **From punishment to incentive:** learn from the US, reward the transition, don't just penalize. IRA tax incentives have been preserved under the Pillar Two safe harbor, ensuring their effectiveness is not undermined by the Global Minimum Tax.
- **Need for coordinated reform** (EU, national and regional levels) to rationalize the total tax burden on the electricity sector. Multiple administrations, one single taxpayer.

Part B: Looking ahead from the present

Current situation

- **Crucial juncture:** balance economic growth, social cohesion, and environmental transition for long-term sustainability.
- **Tax revenues** in the EU have decreased from 40.2% of GDP in 2021 to 39.0% in 2023. Lower revenues from environmental and property taxes explain 60% of this **decline**.
- Temporary measures to curb the impact of **inflation** (e.g., reduction of tax rates for certain environmental taxes).

Will the recent trends will be **reverted** in the coming years?

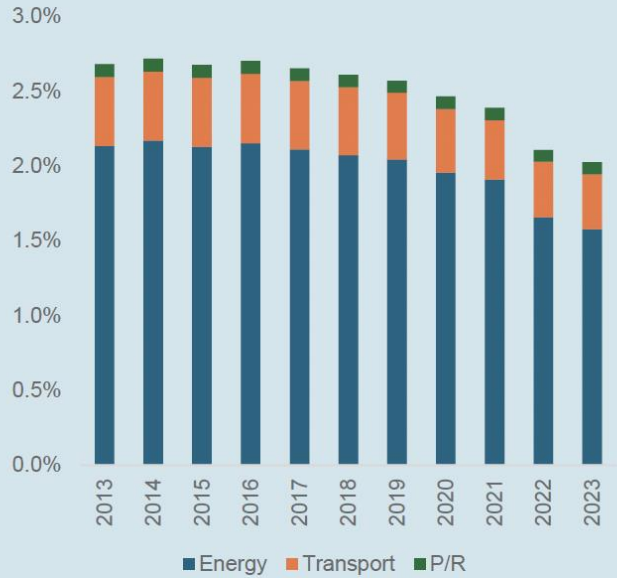
Part B: Looking ahead from the present

During the last decade, environmental taxes have lost weight in the tax-mix of 25 Member States. In 2023, environmental taxes represented 5.2% of total tax revenue in the EU-27, 1.5 pp lower than in 2013 (Figure 26). The share was above 10% in two Member States (Bulgaria, 11.2%; and Greece, 10.6%), and below 5% in nine (with Luxembourg, 3.1% at the bottom). This share was lower than a decade ago in all Member States but two: Bulgaria and Romania. Regarding the composition of environmental taxes, although energy taxes generate most of the environmental revenues in all Member States, a larger role of transport taxes is noteworthy for Malta, the Netherlands, Denmark and Greece. The largest share of revenues from resources and pollution taxes is found in Croatia (1.7%), almost doubling the second runner.

The reasons behind the decline of revenues from environmental taxes are numerous and heterogeneous across countries. In many cases, the downward trend has been driven by reductions in the tax base, prompted for instance by shifting from fossil fuels to renewables, electrification, increased energy efficiency or changes in the economic structure. By contrast, in other cases the absence of indexation for decades or the political unpopularity of environment taxes seem to have eroded revenues and the potential associated to this tax type. Another factor playing a crucial role in recent years has been the adoption by national governments of temporary measures since late 2021 to alleviate households from the impact of soaring energy bills in the context of Russia's war of aggression against Ukraine (see Chapter

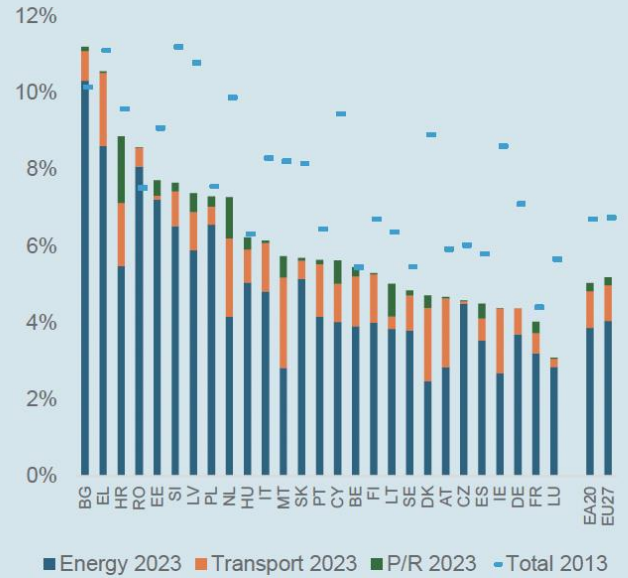
Part B: Looking ahead from the present

Figure 25: Revenue from environmental taxes as share of GDP, EU-27 (2013-2023)



Source: European Commission, DG Taxation and Customs Union, based on National Tax Lists and National Accounts data.

Figure 26: Revenue from environmental taxes as share of total tax revenues, 2023 vs 2013



Source: European Commission, DG Taxation and Customs Union, based on National Tax Lists and National Accounts data. MS ranked by 2023 total environmental tax revenues.

Part B: Looking ahead from the present

Table 4: *Latest tax and related reforms by type of tax as reported by Member States in the 2025 joint Tax Policy Reform Questionnaires*

Type of tax	Countries
Personal Income Tax: Earned income	AT, BE, DE, DK, EE, EL, FI, HR, HU, IE, IT, LT, LU, LV, MT, NL, PT, SE, SI, SK
Personal Income Tax: Savings	AT, DE, DK, ES, LT, NL, SE
Personal Income Tax: Unincorporated businesses/Self-employment income	CZ, EL, ES, HR, LV, NL, PL, SE, SI, SK
Personal Income Tax	BE
Social security contributions: Employee	BE, BG, CY, DE, EL, ES, HU, LV, NL, SK
Social security contributions: Self-employed	BG, CY, EL, ES, PL
Social security contributions: Employer	BG, CY, DE, EL, ES, HU, LT, NL, PT, SE
Corporate income tax	BE, CY, DK, EE, EL, ES, FI, IE, IT, LT, LU, NL, PL, PT, SI, SK
Other corporate taxes	ES, HR, HU, IE, LT, LU, LV, NL, PL, SE, SK
Value-added tax	AT, BE, BG, CY, DE, DK, EE, EL, ES, FI, HR, IE, IT, LV, NL, PL, PT, SI, SK
Environmentally related taxes	AT, DE, DK, EE, EL, FI, HU, IE, IT, LT, LV, NL, SE, SI
Health-related taxes	BG, EE, ES, FI, IE, LT, SE, SI
Other excise duties	DK, HU, NL, PL, SK

Part B: Looking ahead from the present

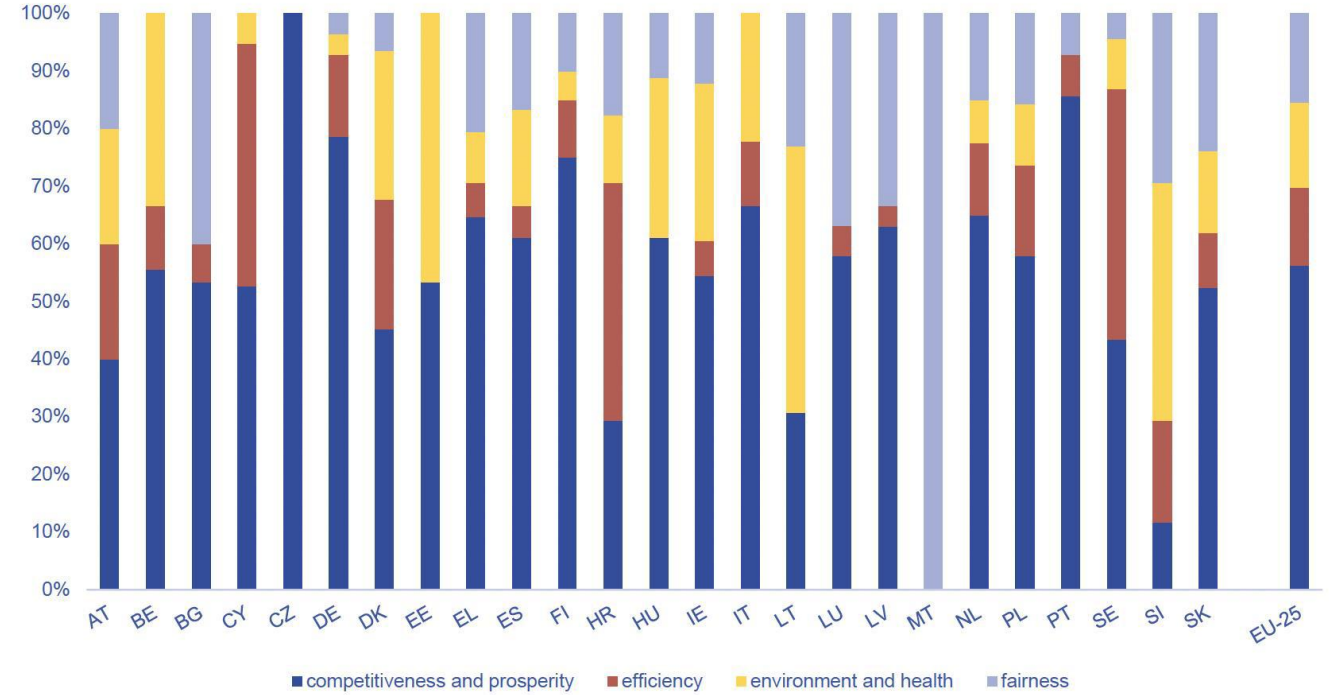
Table 5: Reforms reported in 2025 by dimension and main objective of the reform (EU-27)

Dimension	Main objective of the reform	Total
Competitiveness and prosperity	Raise revenues	100
Competitiveness and prosperity	Support investment	32
Competitiveness and prosperity	Boost economic growth	31
Competitiveness and prosperity	Support employment or enhance skills	24
Competitiveness and prosperity	Support R&D/innovation	6
Competitiveness and prosperity	Encourage consumption	1
Competitiveness and prosperity	Encourage savings	1
Efficiency	Simplify the tax system/ increase tax compliance	33
Efficiency	Increase tax certainty	8
Efficiency	In response to Pillar Two	4
Efficiency	Adjustment made in line with requirements of VAT Directive	1
Environment and health	Promote environmental sustainability	38
Environment and health	Improve health	20
Environment and health	Support clean investment (climate-change mitigation)	8
Fairness	Increase equity/fairness	72
	Not applicable/blank	87
		466

Source: European Commission based on responses to the 2025 joint OECD-European Commission Annual Tax Policy Reform Questionnaires. France and Romania did not provide input.

Part B: Looking ahead from the present

Figure 47: Reforms reported in 2025 by area of impact



Source: European Commission based on responses to the 2025 joint OECD-European Commission Annual Tax Policy Reform Questionnaires. France and Romania did not provide input.

Part B: Looking ahead from the present

Taxation has also a great potential to encourage positive externalities linked to environmental objectives. Tax incentives (e.g., accelerated depreciation or tax credits) can be used to encourage certain activities or incentives (e.g., invest in decarbonised production processes). In this context, the *Clean Industrial Deal* emphasises that tax policies are important to improve competitiveness, resilience and sustainability. In the Clean Industrial Deal Communication on 26 February 2025, the Commission announced to recommend to Member States that their corporate tax systems support a clean business case (see Section 3.1).

(1) The windfall taxes on energy companies as per EU Regulation 1854/2022 do not fall within the scope of energy /environmental taxes.

Part B: Looking ahead from the present

Momentum for introducing new tax bases to effectively support the green transition?

- In addition to the **Green Tax Reform** on the industry sector, a green reform for the agricultural sector is considered pivotal in achieving Denmark's goal of reducing CO2e emissions by **70% by 2030**.

- As the first country in the world, Denmark is expected to introduce a **CO2-equivalent emissions tax** on the agricultural sector. The CO2-equivalent emission tax is intended be imposed on livestock (i.e., the biological processes that generate greenhouse gas emissions).

- The tax is planned to be phased in linearly with a marginal rate from DKK 300 per ton in 2030 to 750 DKK per ton in 2035. However, a basic allowance of 60 per cent of the average emissions from the given type of livestock is provided, meaning that the effective tax rate is 120 DKK in 2030 and 300 DKK in 2035 per ton of emitted CO2e.

Key Takeaways

EU faces the triple challenge of growth, social cohesion and the green transition

- The opportunity to do it in the right way is before us.
- Europe could lead, but only if it acts decisively and coherently.
- The question is whether Europe will seize it.

- Seize the political **momentum** and **coordinate reforms** across all levels, remove red tape where possible and align with EU Taxonomy.
- **Environmental reforms** should be carefully **assessed** and consider the proper use of **tax incentives**.
- **Design** is key to achieve the right objective from a taxation, competition, and environmental point of view.
- **Climate neutrality** requires incentives for the transformation, not additional tax burdens, but rather sufficient green electricity and **competitive electricity costs**.

Reina Sofía Museum

European
Region Conference
Madrid-Spain
11-13 March, 2026

Emerging trends in international taxation: Europe and its global connections

Thank you!