

Estonia

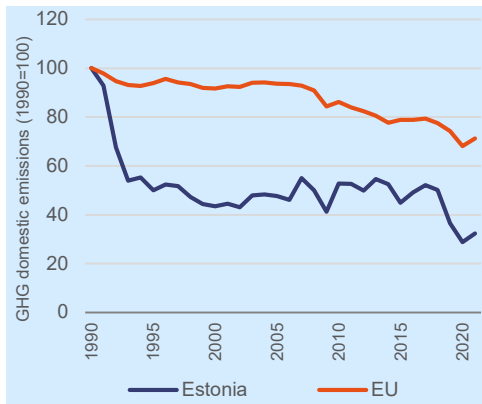
1) Key takeaways

- In 2021, GHG emissions in Estonia were 11.2% below 2019 pre-pandemic levels.
- Over the same period, ETS and Effor Sharing emissions decreased by 19.3% and by 1.2%, respectively.
- Net GHG emissions (i.e. including LULUCF) in 2021 were 64.5% lower than 1990 levels.
- The LULUCF sector removed 1.04 MtCO₂-eq on average per year from 2013 to 2020, based on accounting.

2) Greenhouse gas emissions



In 2021, approximated domestic greenhouse gas (GHG) emissions in Estonia were 13.0 MtCO₂-eq, 12.4% higher compared to 2020 but 11.2% below pre-pandemic levels. Overall, net domestic emissions, including the Land Use, Land Use Change and Forestry (LULUCF) sector, were 64.5% lower than 1990 levels.



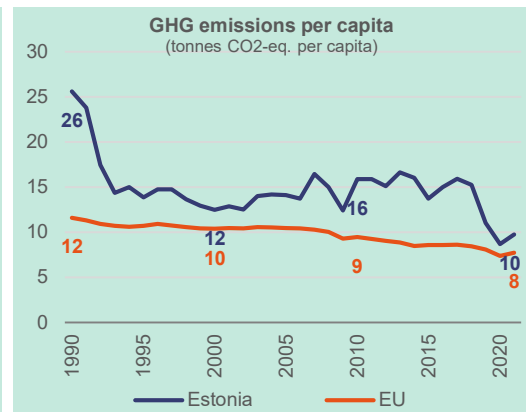
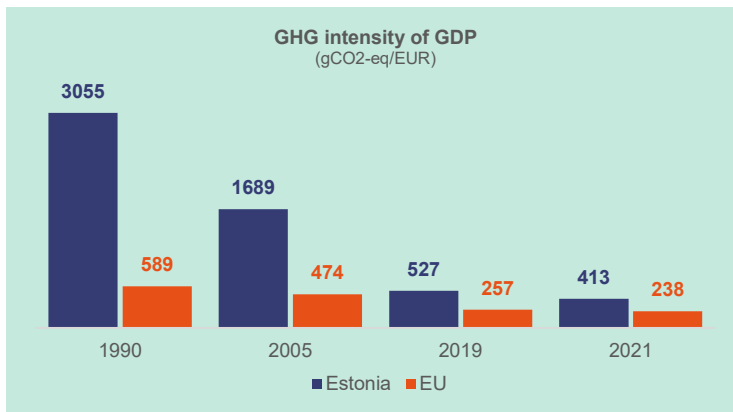
Total domestic GHG emissions

	1990 (MtCO ₂ -eq)	2005 to 1990 (% change)	2019 to 2005 (% change)	2021 to 2019 (% change)	2021 to 1990 (% change)
Estonia	40	-52%	-24%	-11%	-68%
EU	4847	-6%	-21%	-4%	-29%

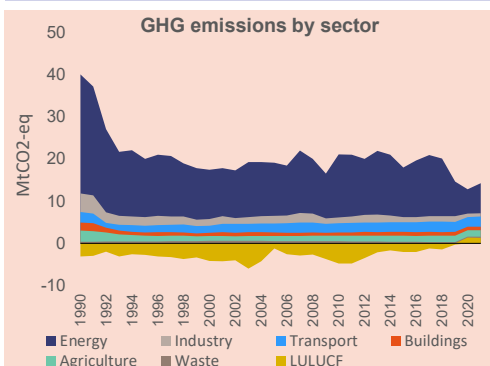
Total net domestic GHG emissions (including LULUCF)

Estonia	37	-55%	-25%	-2%	-64%
EU	4633	-13%	-26%	-10%	-33%

Note: GHG emissions and removals for 1990-2020 are based on data submitted by EU Member States to the UNFCCC under Regulation (EU) No 525/2013. Figures may change following resubmissions. GHG emissions for 2021 are based on approximated GHG inventories.



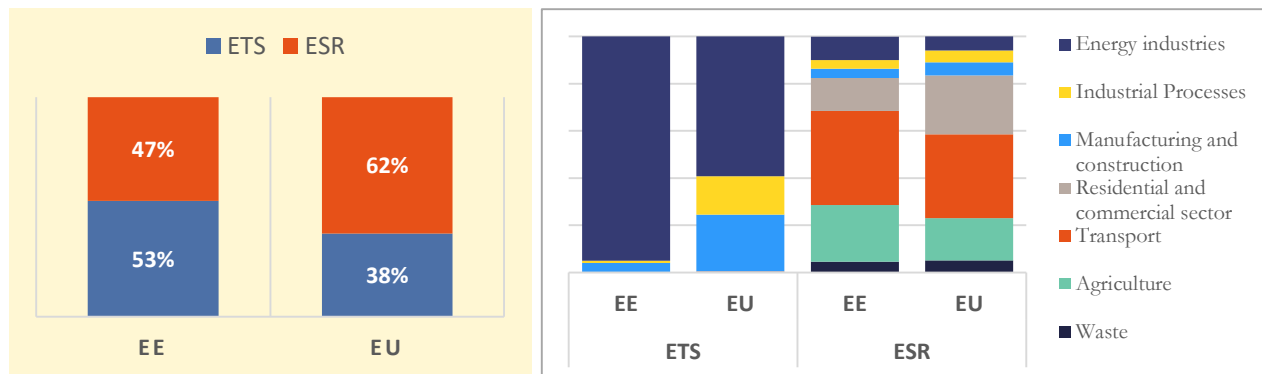
3) Greenhouse gas emissions by sector



	1990 (MtCO ₂ -eq)	2005 to 1990 (% change)	2019 to 2005 (% change)	2021 to 2019 (% change)	2021 to 1990 (% change)
Energy	28.3	-55%	-35%	-13%	-75%
Industry	4.4	-60%	-24%	-41%	-82%
Transport	2.5	-13%	11%	2%	-1%
Buildings	1.9	-54%	0%	-1%	-55%
Agriculture	2.6	-55%	28%	-1%	-44%
Waste	0.4	39%	-41%	-7%	-24%
LULUCF	-3.2	-60%	-74%	-486%	-141%
International aviation	0.1	28%	54%	-6%	86%

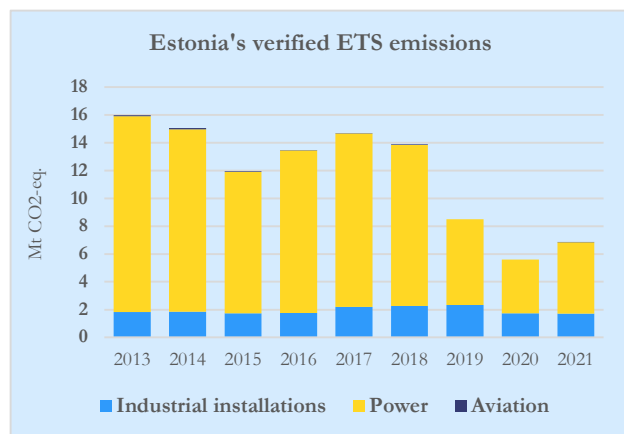
Notes: (1) Energy sector refers to electricity and heat production and petroleum refining. (2) Industry includes fuel combustion in manufacturing and construction and emissions in industrial processes and product use. (3) Buildings include emissions from energy use in residential and tertiary buildings, and energy use in agriculture and fishery sectors.

In 2021, the highest contribution to net GHG emissions in Estonia came from the Energy sector (49%), followed by the Transport sector (17%) and the Agriculture sector (10%). Emissions from sectors under the Effort Sharing Regulation (ESR) were 47% compared to 62% for the EU as a whole (see shares in the charts below).



4) Emissions under the EU Emissions Trading System (ETS)

In 2021, stationary installations (e.g. power generation and manufacturing industry) in Estonia emitted 6.9 million tonnes of CO₂-eq emissions (equal to 53% of Estonia's total GHG emissions). This is 21.9% higher compared to 2020 but 19.3% below pre-pandemic levels. By 2021, emissions from stationary installations were down by 57.0% against 2013 level (i.e. -46.8% to 2005 levels).



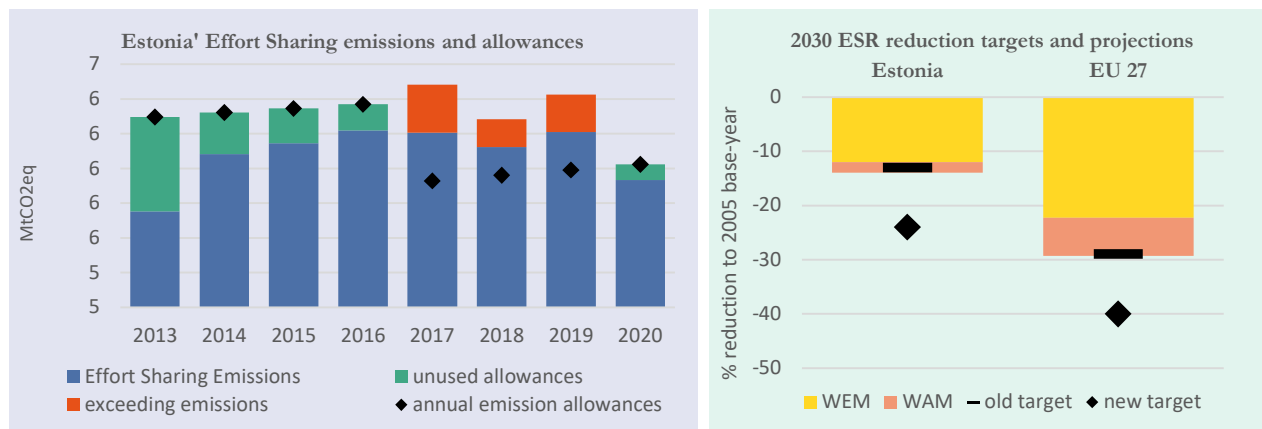
In parallel, Estonia has raised over EUR 0.8 billion in auction revenues since 2013, available for further climate action and energy transformation. Estonia reported that an average of 31% of revenues was spent for climate and energy purposes over the same period. (*)

Mt CO ₂ -eq	2013	2020	2021
Power installations	14.1	3.9	5.1
% change since 2013	-	-72.5%	-63.6%
Industrial installations	1.8	1.7	1.7
% change since 2013	-	-3.9%	-5.7%
Aviation (**)	0.07	n.a.	0.01
% change since 2013	-	n.a.	-87.3%

(*) 50% of the auctioning revenues are earmarked and directed through the four-year State Budget Strategy and spent on climate and energy projects and measures, which may take multiple years. Unspent revenues are carried over to later years and always used for climate and energy projects. The remaining 50% goes to the general budget, which, among others, covers climate and energy investment (not included here).

(**) ETS emissions from aviation include flights within the European Economic Area (EEA) and outgoing flights to Switzerland and to the UK.

5) Emissions in Effort Sharing sectors



Note: (1) Verified emissions based on annual inventory review under the Effort Sharing Decision (ESD). (2) Projections as reported by Member States under Reg. (EU) 2018/1999, compiled and checked by the EEA. (3) ESR base-year emissions and targets have been approximately converted into GWP AR4 for comparability. For these reasons, the distances to targets for 2030 are provided for illustrative purposes only (4) WEM = with existing measures, WAM = with additional measures.

In 2021, effort sharing approximated emissions in Estonia were 6.1 MtCO₂eq (equal to 47% of Estonia's total GHG emissions), 3.4% higher than in 2020 but 1.2% lower than 2019 pre-pandemic level.

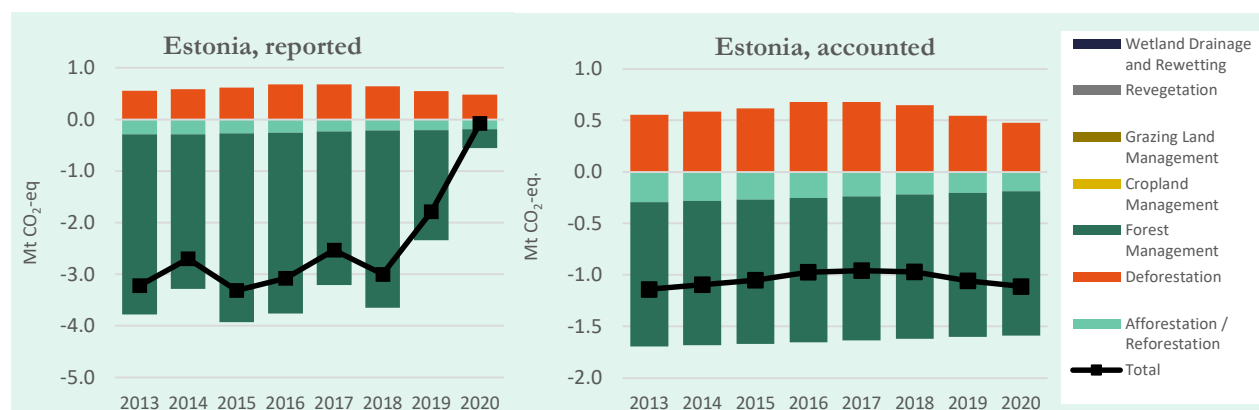
Between 2013 and 2019, Estonia exceeded its annual emission allocations (AEAs) 3 times. However, Estonia complied with the Effort Sharing Decision by making use of the flexibilities provided therein.

In 2020, effort sharing emissions in Estonia were below the annual limit.

6) Land Use, Land Use Change and Forestry (LULUCF)



Reported quantities under the Kyoto Protocol for Estonia show net average annual removals of -2.5 Mt CO₂-eq for the period 2013 to 2020. In this regard, Estonia contributes with 0.8% to the annual average sink of -320.2 Mt CO₂-eq of the EU-27. Accounting for the same period depicts net credits of, on average, -1.0 Mt CO₂-eq, which corresponds to 1.3% of the EU-27 accounted sink of -83.4 Mt CO₂-eq. Reported net removals and accounted net credits show an overall decreasing trend which has accelerated since 2018.



Notes: (1) Charts based on the submissions delivered until May 2022. (2) Data reported for the period 2013-2020, for mandatory and elected LULUCF activities, were submitted by Member States to the European Environment Agency (EEA) and underwent a simulated accounting process developed by the Joint Research Centre (JRC), together with DG CLIMA. (3) Reported data represent the gross annual flux of greenhouse gas from the sector, by activity, according to the IPCC methods for calculation in the framework of the Kyoto Protocol (KP). Accounting is aimed at assessing the impact of policies on climate actions on the actual data, for example as an increase in the sink within the Forest Management activity. (4) The simulated accounting process does not take into account any adjustments or flexibilities that a Member State may apply, for example the purchase of KP credits.

The dominating reported activity is in general emissions from Forest Management Removals by Afforestation/Reforestation and emissions by Deforestation make up on average a minor portion of the emission budget of the LULUCF sector. Removals by Forest Management dropped notably from 2013 to 2014, between 2016 and 2018 and significantly between 2019 and 2020. Wide areas of forests reaching maturity and on the other hand the very young age of recently revegetated areas are the main drivers behind this pattern. Emission by Deforestation show a slightly decreasing trend in recent years.

Credits by Forest Management are the dominating accounting quantity from 2013 to 2017 but were superseded by debits by Deforestation in 2019 and 2020. Credits by Afforestation/Reforestation are small and stable. Accounting accentuated the drop in 2014 for credits by Forest Management with levels close to zero in 2019 and 2020. Small decreasing trend of debits by Deforestation become more visible also in 2020.

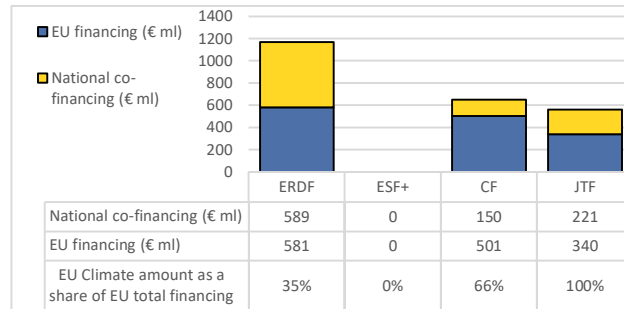
7) Financing Climate Action



Cohesion policy

Estonia's Planned Financing for Climate Actions

(EU financing & national co-financing - 2021-2027 Cohesion Policy)



The chart presents information on investment plans and achievement targets from adopted programmes. Financing for cohesion policy uses a categorisation to provide thematic information on the finances planned.

Source: <https://cohesiondata.ec.europa.eu/>

Innovation and Modernisation Fund

Innovation Fund (Portfolio of signed projects)

	n.	EUR million
Small Scale Projects	-	-
Large Scale Projects	-	-

Modernisation Fund n. EUR million

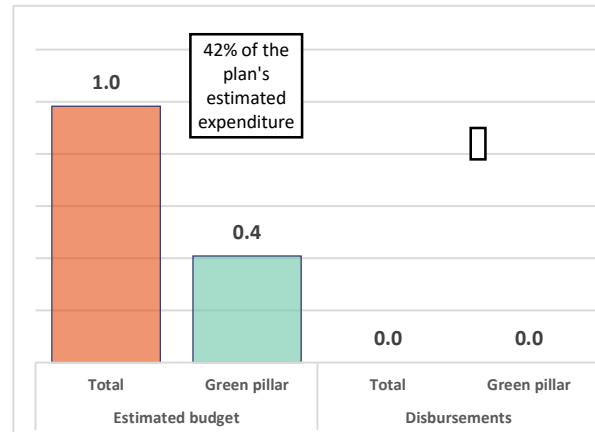
(List of confirmed or approved investment proposals)

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Recovery & Resilience Facilities

RRF allocations (EUR billion)	Grants:	Loans:	% of GDP
	0.97	-	3.2

RRF contribution to the Green pillar in Estonia (€ bn)



This graph displays: 1) the estimated cost of measures attributed by the Commission, in consultation with the Member State, to the green pillar either as primary or secondary assignments; and 2) how disbursements under the RRF² (excluding pre-financing) relate to the green pillar.

Source: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html?lang=en