

GHG Inventory 2021 data

GHG reporting scope

Using the INEOS science base, the Group footprint is calculated per calendar year according to the GHG protocol. The financial control approach is used with INEOS AG as parent company, including all subsidiaries, joint ventures and joint operations, except for offices, sports and fashion activities. Petroineos and INEOS Infrastructure (Grangemouth) Ltd are included in the 2021 reporting boundary of INEOS AG, despite sitting to the side of INEOS AG in the organogram since they are classed as JVs in the consolidated financial accounts of INEOS Group Holdings SA.

The operational boundaries of the GHG inventory cover all process emissions, material emissions from stationary and mobile combustion, flaring and emissions from purchased energy.

INEOS GHG footprint

GHG data are sourced from all INEOS sites within the scope defined above, using operational data, emission factors and recognised tools such as the GHG Protocol CHP tool. The quality of the GHG inventory is ensured with internal data consolidation with feedback loops.

| [KtCO ₂ e] | 2021 | 2020 ^A | 2019 ^A |
|--|-------------------|-------------------|-------------------|
| Scope 1 emissions | | | |
| Carbon dioxide (CO ₂) | 16,018.380 | 15,707.407 | 16,421.964 |
| Other GHG emissions ^b : | | | |
| Methane (CH ₄) | 84.111 | 86.852 | 69.255 |
| Nitrous oxide (N ₂ O) | 36.168 | 35.704 | 44.942 |
| Hydrofluorocarbons (HFC) | 30.156 | 11.567 | 22.186 |
| Perfluorocarbons (PFC) | 0.000 | 0.000 | 9.640 |
| Sulphur hexafluoride (SF ₆) | 0.524 | 0.000 | 0.000 |
| Nitrogen trifluoride (NF ₃) | 0.000 | 0.000 | 0.000 |
| Exported energy to third parties ^c | 1,053.931 | 1,105.834 | 1,087.915 |
| Scope 2 emissions^d | | | |
| Market-based emissions | 6,593.995 | 6,931.526 | 7,417.849 |
| Location-based emissions | 5,386.074 | 5,400.261 | 5,899.339 |
| Total emissions^e excluding exported energy | 22,763.334 | 22,773.056 | 23,985.835 |
| Total emissions including exported energy | 23,817.265 | 23,878.891 | 25,073.750 |
| Additional data | | | |
| Transferred CO ₂ ^f | 321.097 | 286.801 | 292.503 |
| Biogenic CO ₂ from fuels | 17.291 | 18.955 | 13.531 |
| Biogenic CO ₂ from imported energy | 331.917 | 262.849 | 243.207 |
| Offsets | - | - | - |

Table notes

- a 2019 is defined as reference year for tracking INEOS' footprint over time; historical data is recalculated following the all-year/same-year approach taking into account the structural changes.
- b Other GHG emissions are converted to CO₂e using the 100-year Global Warming Potential (GWP) factors from IPCC's fifth assessment report; CH₄ and N₂O emissions are 3004 t and 136 t respectively in 2021, while other GHG data are collected only in t CO₂e due to lower materiality.
- c Emissions on energy exported to third parties are reported as a separate subcategory of scope 1; all emissions in this category are in CO₂ with negligible contribution of other GHGs (<0.01%).
- d The scope 2 figure is based on gross energy purchase with negligible contribution of other GHGs (<0.01%); highest quality available emission factors are used as per the hierarchy in the GHG protocol.
- e Total emissions are calculated using the market-based scope 2 figure; this figure is also reported in INEOS' sustainability report and is used as basis for INEOS' emission reduction strategy.
- f Captured CO₂ is mostly transferred outside our boundary and sold to third parties; only 1% of the capture is mineralised onsite to produce carbonate.

GHG reporting validation

We refer to the "independent limited assurance report by KPMG, included in our sustainability report".