Our SHE goals and performance

Greenhouse Gas Emissions

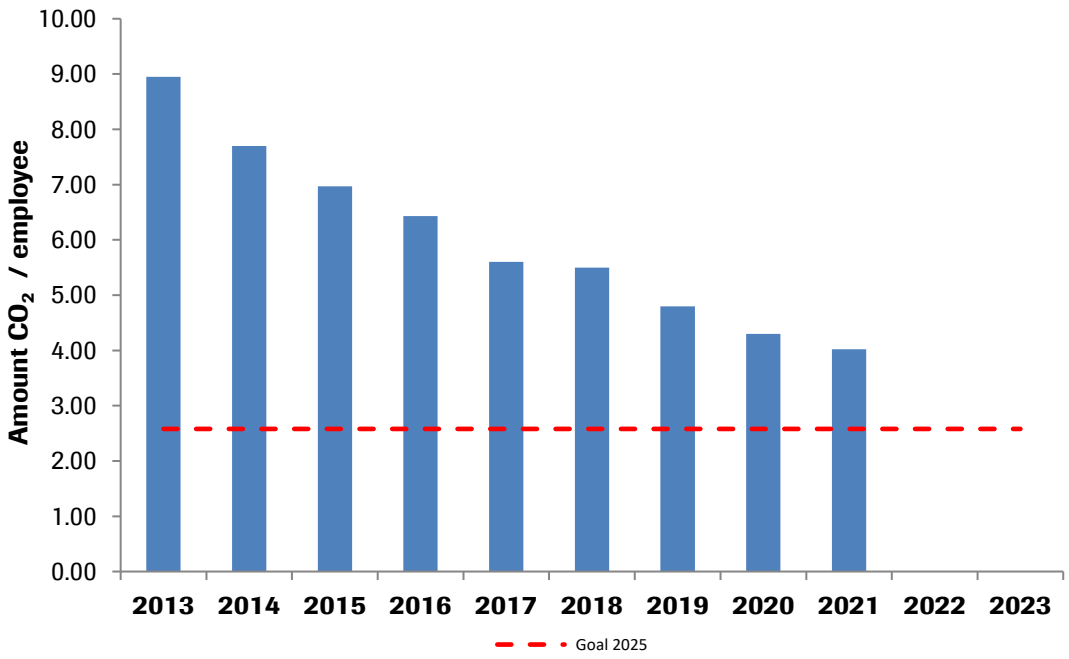
Roche recognises that climate change is one of the largest global risks and we are addressing this issue as matter of urgency. Since the early 2000s, Roche has been working towards a low-carbon future. Roche's long-term goal is to reduce emissions from owned or controlled sources or from the generation of purchased energy (scope 1 & 2) to zero by the mid of this century.

Roche GHG emissions are almost enirely resulting from energy use. That is why our climate change mitigation strategy is an energy strategy. Saving energy, improving energy efficiency and substituting fossil fuel based energy reduces GHG emissions and other pollutants which improve the quality of the air. These opportunities reduce operating costs for the company, increase the profit margin and contribute to Roche's reputation as a socially and environmentally responsible organisation.

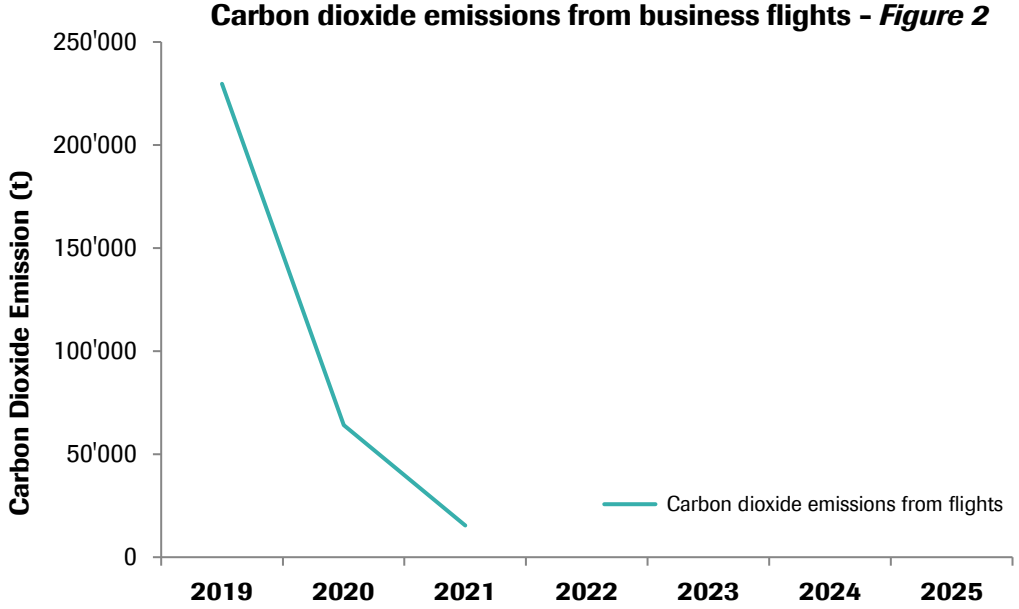
In 2021, we further improved our *emissions per employee* by 6.6% compared to 2020 (see ***Figure 1***).

Carbon dioxide from *air travel* decreased significantly due to the Covid-19 pandemic by approximately 72% in 2020 compared to 2019 and further 76% in 2021 compared to 2020 (see ***Figure 2***). This is only 1.7% of our total CO_2 emissions in 2021. Hence, there is proof of concept that after returning to a so-called "new-normal" an appreciable reduction of our air travel compared to 2019 and the years before is feasible.

CO_2 intensity (amount of CO_2 t, (Scope 1 & 2)/employee) – *Figure 1*



Carbon dioxide emissions from business flights – *Figure 2*



Halogenated hydrocarbons

Roche's halogenated hydrocarbon program was initially set up in 1994 to phase-out ozone depleting substances in Roche owned and leased facilities in alignment with the objectives of the *Montreal Protocol.* In 2002, the program was expanded to cover replacement gases that are not ozone depleting but climate damaging (e.g. hydroflourocarbons). A series of phase-down targets in support of the *Kigali Ammendment* were set until 2020. Following reductions of 93% between 2002 and 2021 for legacy Roche sites, an ambitous target to **eliminate all halogenated hydrocarbons** from all Roche owned and leased facilities **by the year 2030** was set.

The overall inventory of halogenated hydrocarbons for the Roche Group decreased from 114.3t in 2017 to 94.1t in 2020 (including rented and leased buildings; global inventory including Chugai, Genentech and Ventana). In 2021, the Roche Group inventory could be further reduced to 88.6t. Chugai`s overall inventory of halogenated hydrocarbons in 2021 was 43.4t.

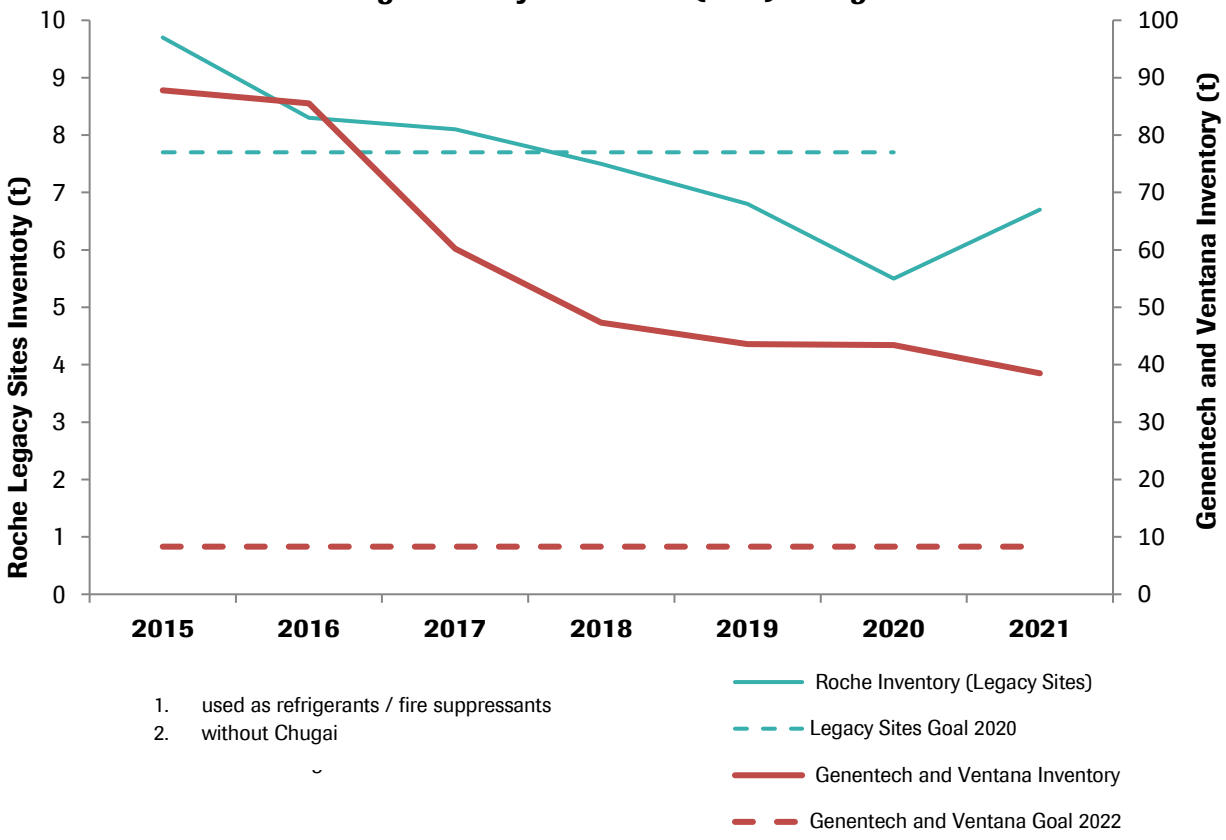
As in 2020, related emissions totalled again 1.5t in 2021 (-32% compared to 2019). Future reductions in the inventory are expected to be accompanied by reduced amounts of emissions.

The 5 year target between 2015 and 2020 was to reduce the total halogenated hydocarbon inventories by 20% for all legacy Roche sites, from 9.5t to 7.7t. We were able to reach this goal two yerars ahead of schedule in 2018. The current inventory in Roche legacy sites is 6.7t (see ***Figure 3***). After overachieving the 2020 target last year (-44% compared to -20% target), non-compliant inventories at Roche legacy sites increased by 23% in 2021 due to additional leased space in the Diagnostics division (+2%) and

previously unreported equipment in Pharma Legacy (+39%). Phase-out plans at legacy sites, however, are on track to deliver the 2025 target (4.1t, -25% compared to 2020).

Similar reduction goals were set for sites acquired after 2002 (in particular Genentech and Ventana). Since 2010, Genentech and Ventana have been aiming to reduce their inventory by 90%, to 8.3t in 2022. In 2021, their inventory was further reduced to 38.5t (-11% at the Genentech sites, -19% at Ventana compared to 2020, see ***Figure 3***). The target is to remove the remaing inventory of approx. 30t by the end of 2022, however major delays in the K6 implementation at US Genentech sites jeopardize the 2022 goal achievement.

Halogenated Hydrocarbons (tons)[1,2] – *Figure 3*



1. used as refrigerants / fire suppressants
2. without Chugai

Ozone depleting substances (ODS) were not completely eliminated in 2021 and this will be pursued with utmost priority (only all Diagnostics Legacy sites have eliminated ODS).

In 2021, HCFO-1233zd(E) has been approved by Group SHE for use in certain large-scale installations and will support further reductions of non-compliant substances.