



**TURNING
STONES**
Engineering&Consulting

Corporate carbon footprint update

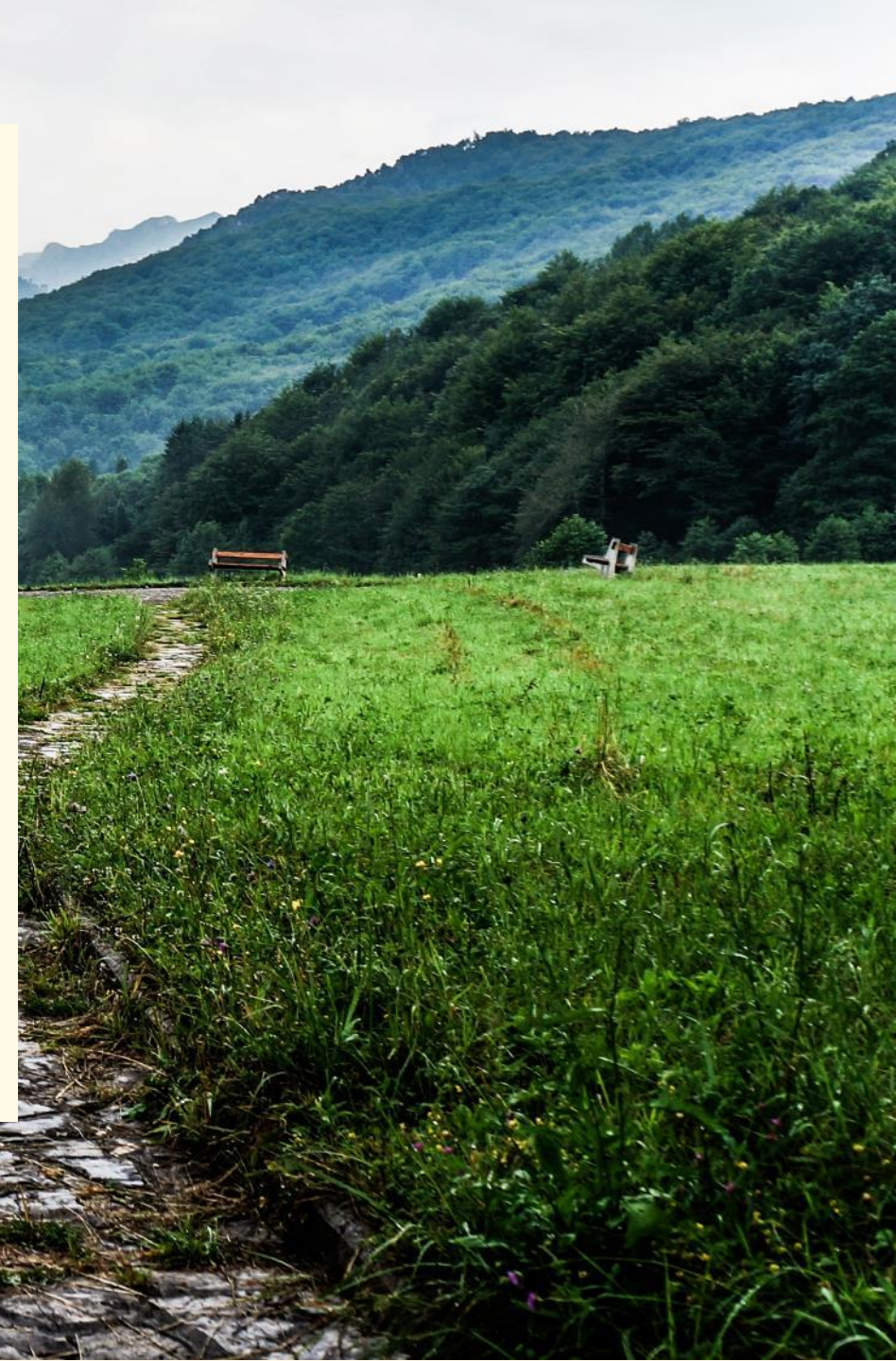


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In collaboration with:  **TURNING
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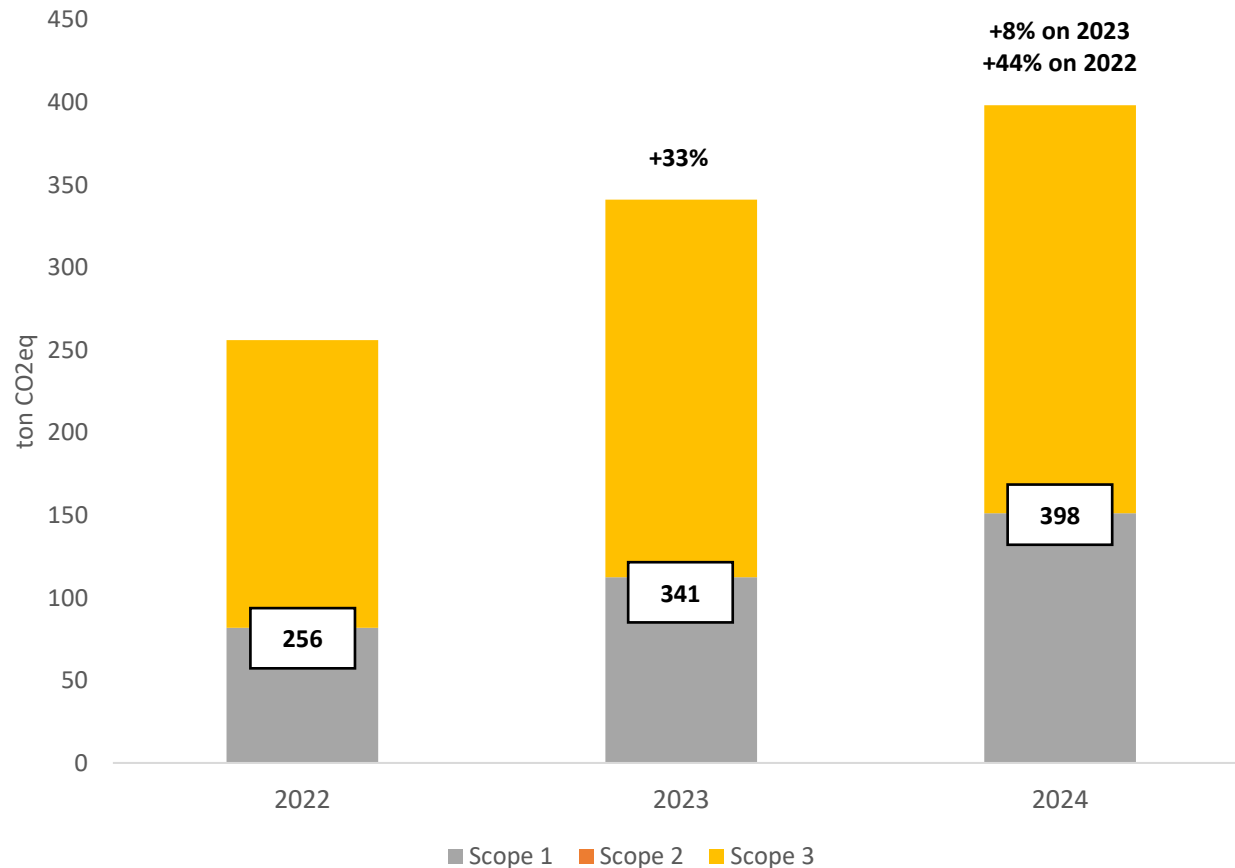
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A scenic landscape photograph featuring a stone path that leads from the foreground into a lush green field. In the background, there are rolling hills and mountains partially shrouded in mist or low clouds. The overall atmosphere is peaceful and natural.

1. Carbon footprint trends

Chiman corporate carbon footprint – Absolute emissions

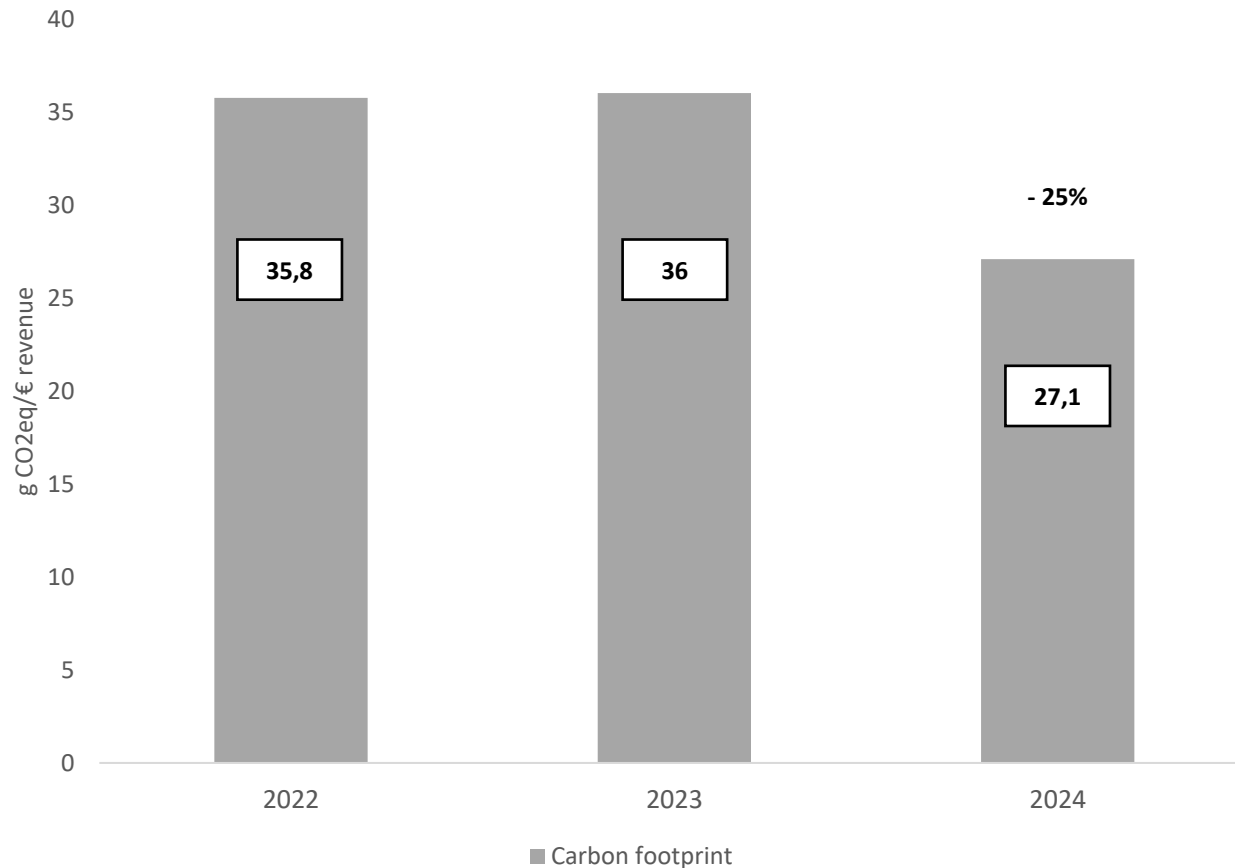


Chiman's carbon footprint has increased year over year, reflecting the overall growth of its business activities.

Notably, the ratio between Scope 1 and Scope 3 emissions has remained consistent throughout the years, reflecting the proportional nature of this growth.

Scope 2 emissions remain at zero*, thanks to the company's continued purchase of 100% renewable electricity certified with Guarantees of Origin (GO).

Chiman corporate carbon footprint – Economic emissions intensity



When examining emissions intensity relative to Chiman's revenue, the data shows a decrease in economic emissions intensity in 2024, both compared to 2022 and 2023.

This could mean an increase in overall efficiency in Chiman activities or that the revenues are generated from less carbon intensity activities.



A scenic landscape photograph featuring a stone path that leads from the bottom center towards the middle ground, flanked by lush green grass and wildflowers. In the background, rolling hills and mountains are partially shrouded in mist or low clouds, creating a sense of depth and tranquility. The sky is overcast with soft, diffused light.

2. Carbon footprint results

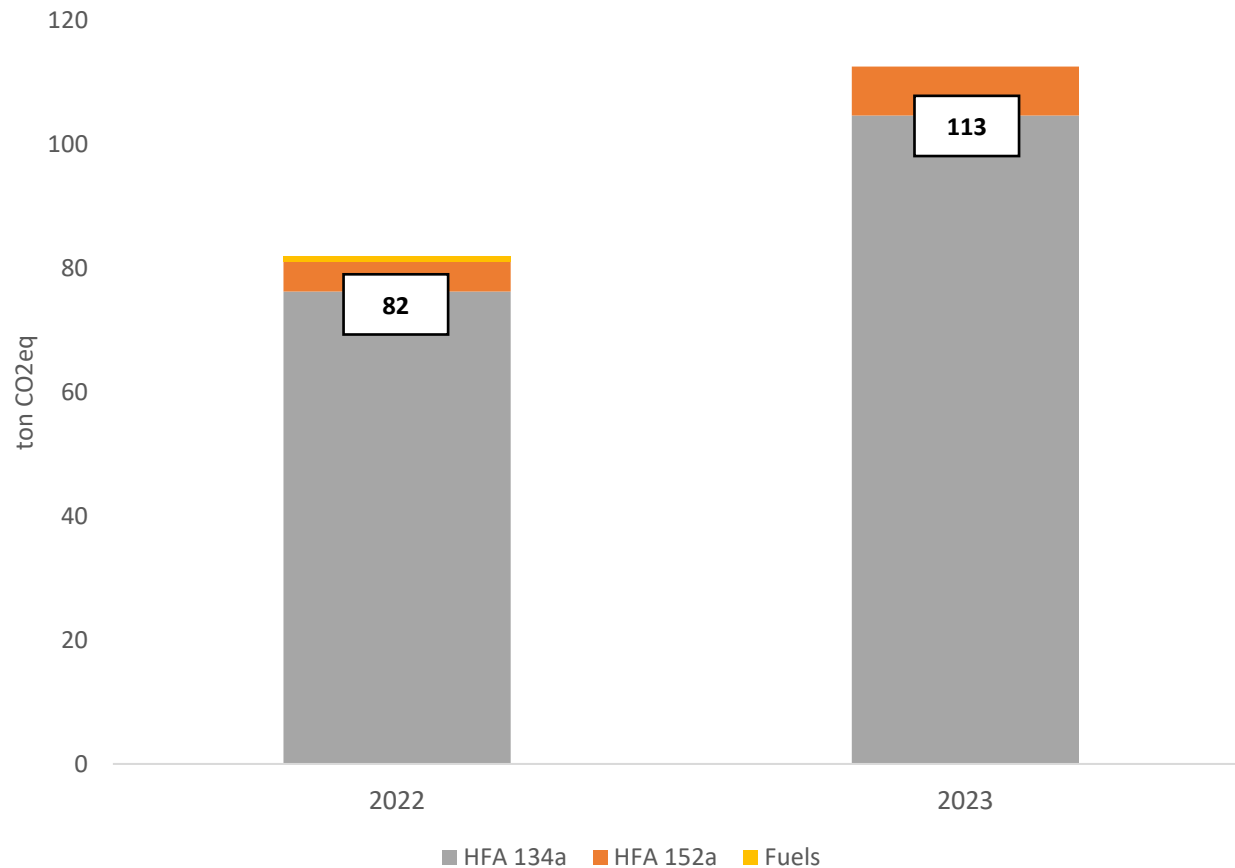
Overall results

The overall results of Chiman's carbon footprint follow the same trend in the three years considered, as already mentioned:

- Scope 1 accounts for about one third of the overall emissions, and it is dominated by the direct emissions of HFA134a and HFA 152a. In 2024, its share of the footprint increased up to 38%.
- Scope 2 is equal to zero, when calculated with a market-based approach
- Scope 3 accounts for the rest of the footprint, with category 3.1 (purchased goods) being the hotspot



Corporate carbon footprint 2022 & 2023 – Scope 1

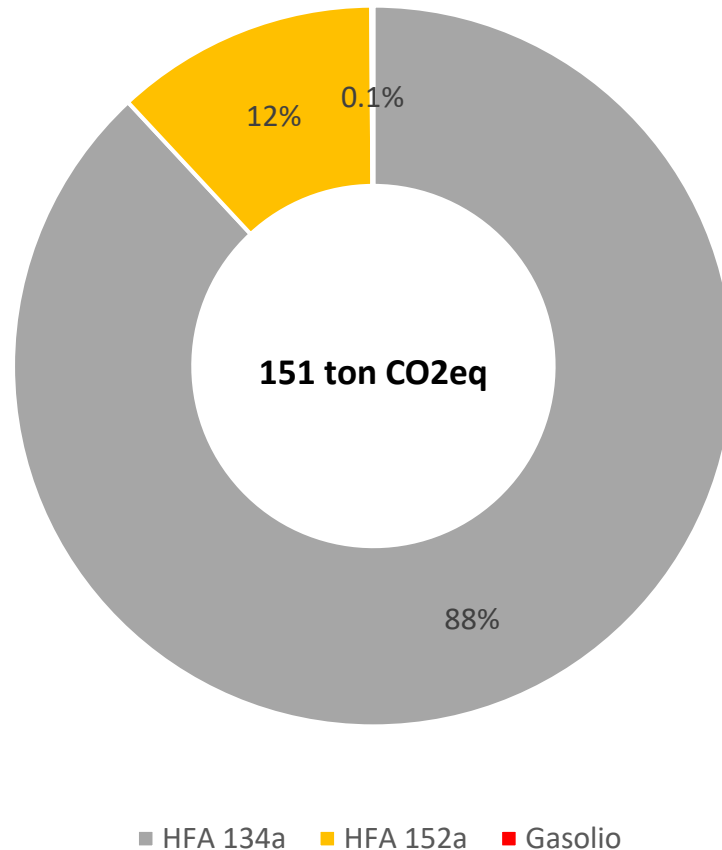


The Scope 1 footprint in the previous years has been mainly linked to emissions of propellants during the testing phase (99-100% of Scope 1 footprint), while the fuels, only used as emergency generators, do not contribute to the footprint.

The propellant that contributed the most to the Scope 1 footprint was HFA 134a in both years.

Propellant	Amount emitted (kg)		Footprint (ton CO2eq)	
	2022	2023	2022	2023
HFA 134a	50	68,4	77	104,6
HFA 152a	32	48,3	5	7,9

Corporate carbon footprint 2024 – Scope 1



The **Scope 1 footprint** is again mainly **linked to emissions of propellants** during the testing phase (99% of Scope 1 footprint).

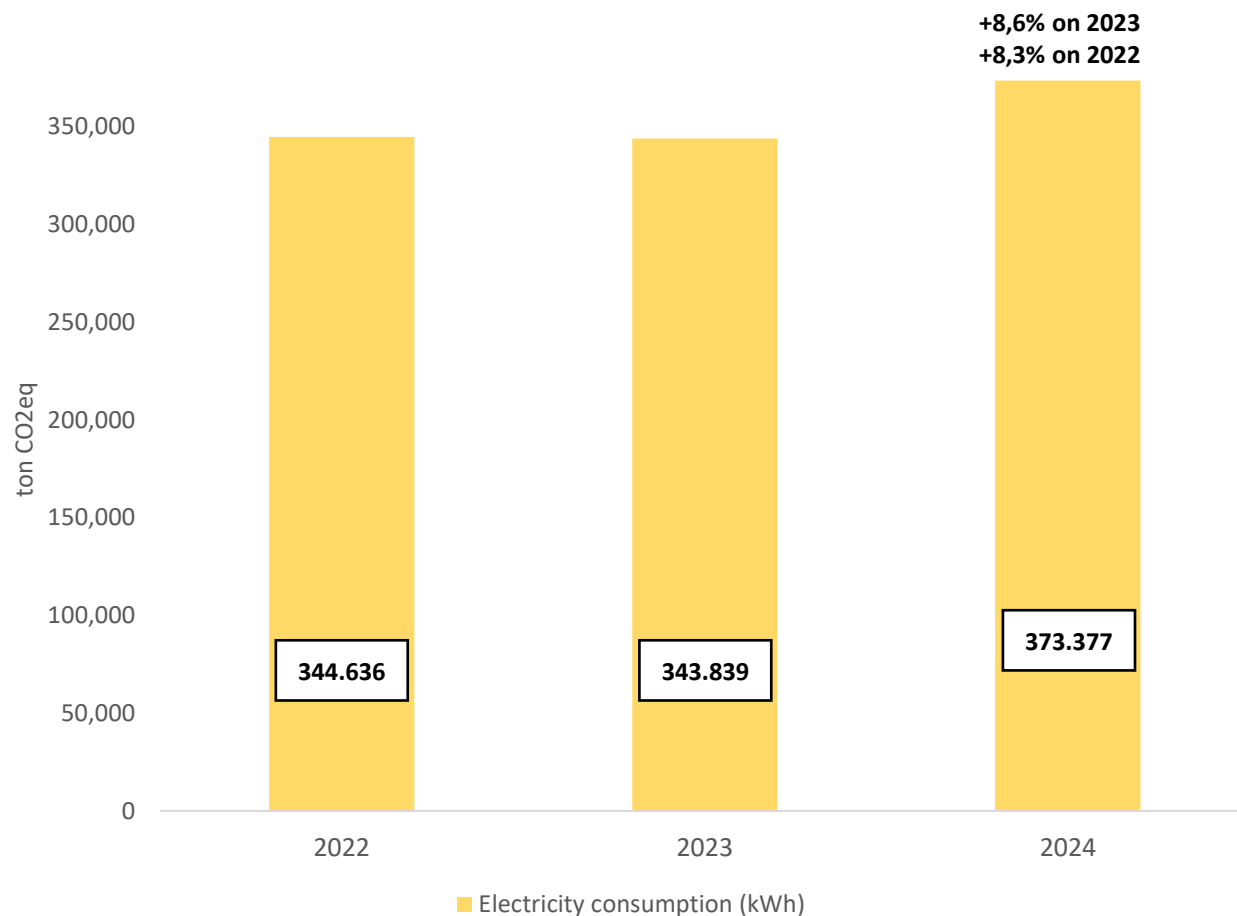
The propellant that **contributes the most** to the Scope 1 footprint is **HFA 134a**, with approximately 87 kg emitted, equivalent to circa 133 tons CO₂eq (88% of Scope 1).

The other propellant is HFA 152a, with approximately 109 kg emitted, equivalent to circa 19 tons CO₂eq.

Contrarily to what observed in the previous year, **HFA 152a emissions surpassed (in terms of mass) HFA 134a emissions**.



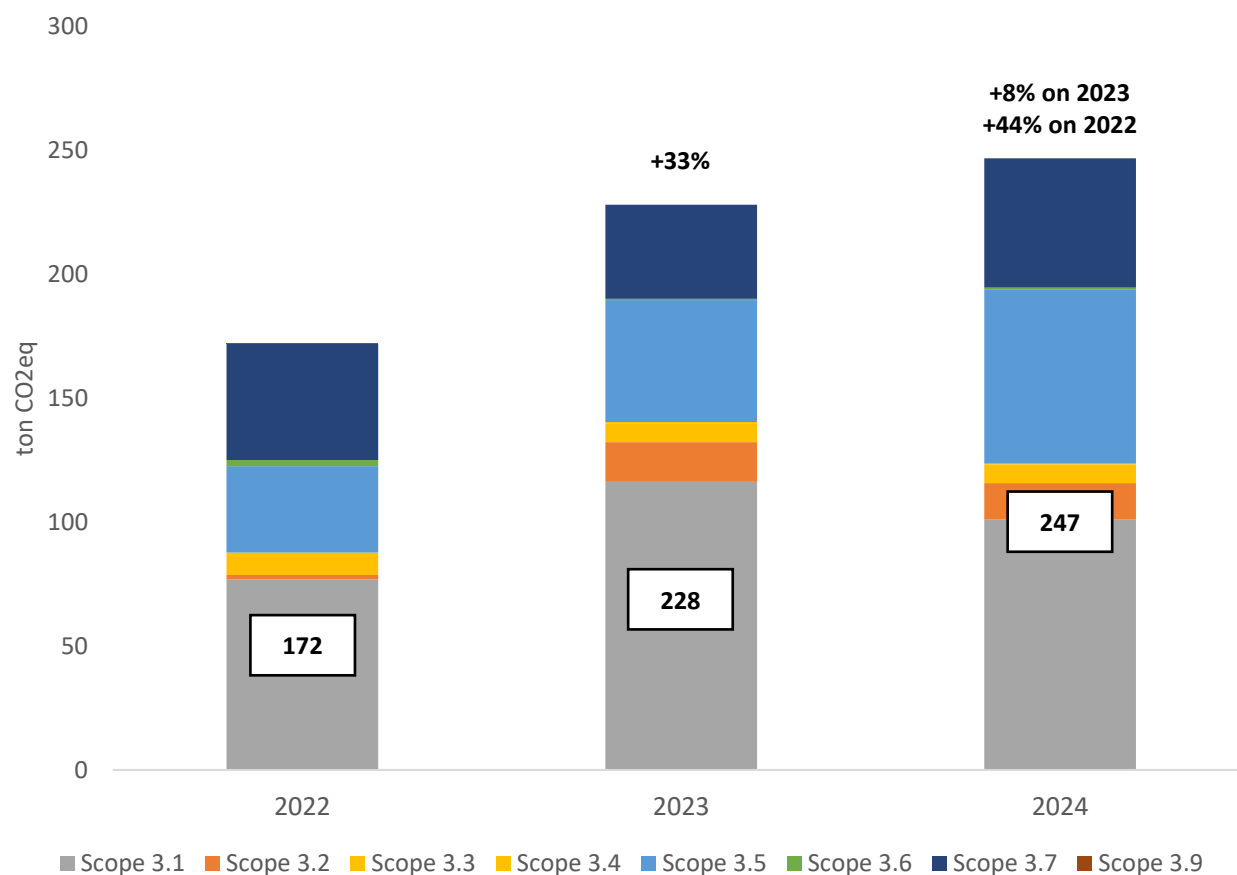
Electricity consumption and Scope 2



Scope 2 emissions remain at zero*, thanks to the company's continued purchase of **100% renewable electricity** certified with Guarantees of Origin (GO).

Over the three years analyzed, **electricity consumption remained stable**, with a slight increase in 2024. Despite the purchase of GOs, it remains **important to be able to reduce energy consumption**, at least in proportion to annual revenues.

Chiman corporate carbon footprint – Scope 3



Chiman's **Scope 3** has increased **steadily** in the three years analyzed, reflecting the business trend.

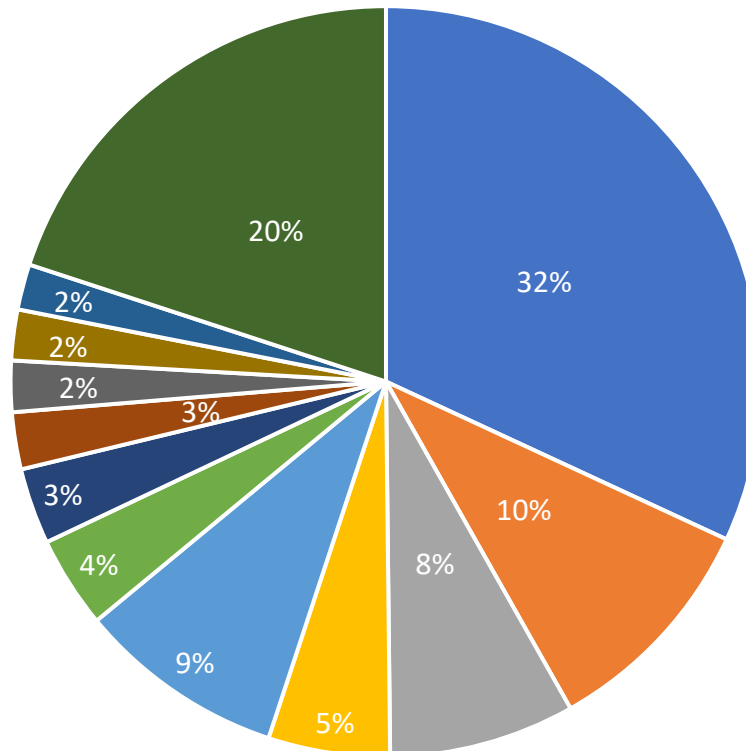
The **growth** is seen especially in the **categories** that are most linked with the **daily operations** and business expansion.

Surprisingly, however, purchased goods see a decrease in the category's footprint.



Scope 3.1 – Purchased goods and services

- Acetonitrile
- Installation, assistance and maintenance from Thermo Fischer
- Assistance and maintenance of generators from TecnoGen
- Methanol
- Laboratory glassware and chromatographic columns, vials (Orion Scientific + Laboindustria)
- Laboratory consumables (VWR International)
- Bottiglie HDPE prodotti chimici
- Impresa di pulizie
- Tappi vials
- Scatole per confezionamento campioni
- Consulente persona qualificata sostituita
- Others



The **Scope 3.1** footprint is mainly driven, at a macro-category level, by the **purchase of solvents and reagents, as well as laboratory materials and consumables**.

Individually, the major hotspots in this category are:

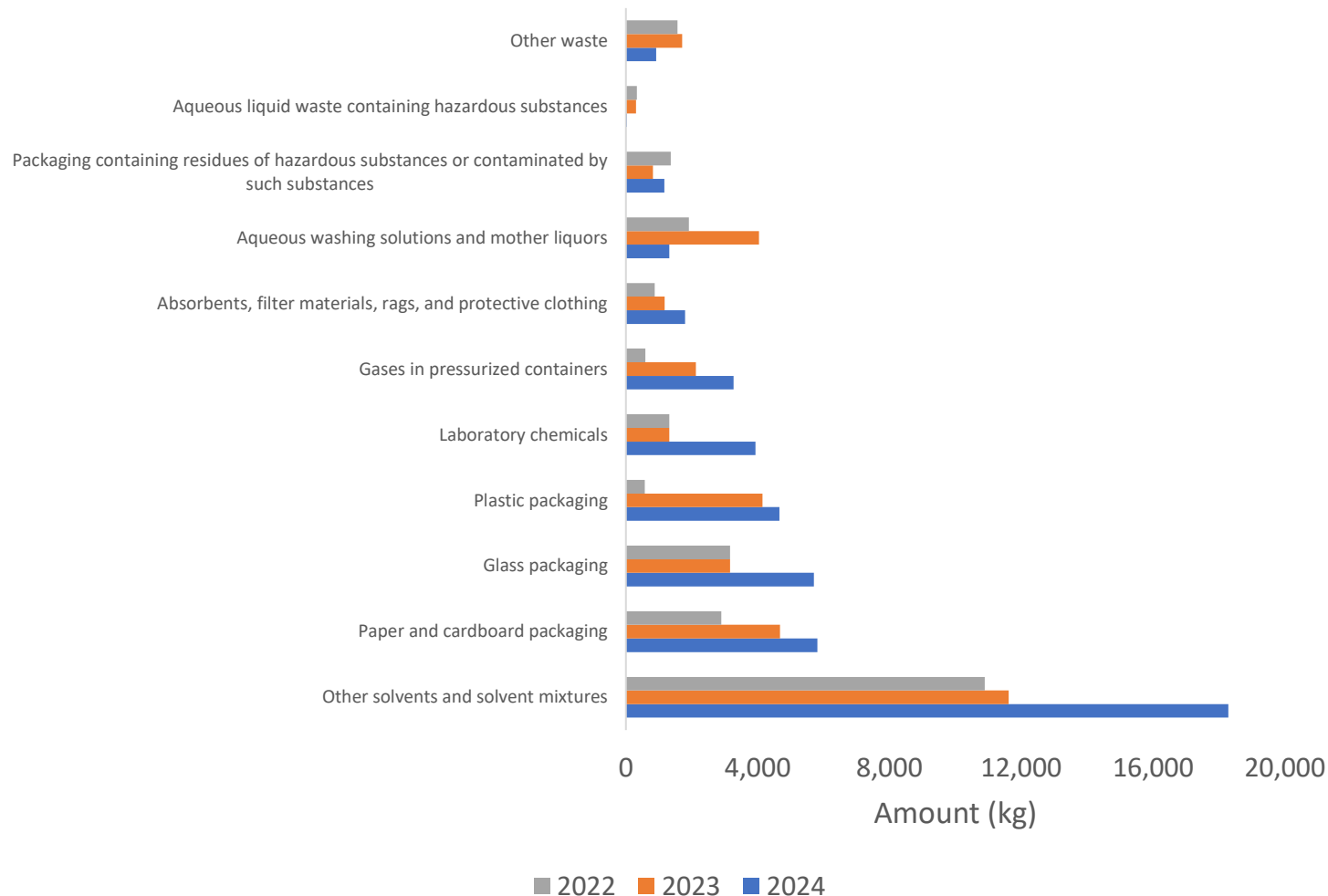
- Acetonitrile, which use increased by 58% from 2023 (32%);
- Installation, assistance and maintenance from Thermo Fischer (10%);
- Assistance and maintenance of generators (8%);
- Methanol (5%);
- Laboratory glassware, columns and vials (9%);
- Laboratory consumables (4%);
- HDPE bottled for chemical products (3%);
- Cleaning services (3%).

Scope 3.1 – Differences with 2023 data

The main differences compared to 2023 data, in relevant categories, are observed for:

- Chemical products: -23%
 - Acetonitrile: +58% (from 2400 to 3780);
 - Methanol: +68% (from 3900 to 6550 kg)
 - Ethanol: +100% (from 240 to 480 kg);
- Salts: -23%
- Purchases:
 - Tappi vials: +292% (from 600 to 2350)
 - Gloves (conf. 100): +205% (from 119 to 363)
 - Test tubes: +89% (from 619 to 1171)
 - Vials: + 683% (from 300 to 2350)
 - Stability boxes (conf. 50): - 93% (from 180 to 12)
 - Labels (1000 pieces): -87% (from 230 to 30)
- Purchase of goods and services (spend based): - 24%
 - Overall, for what applies to this category, the expenditures were 22% lower than in 2023

Scope 3.5 trends



Compared to 2022 and 2023, the **amount of waste produced by Chiman increased by 33% and 84%**, rising from approx. 25 to 35 and finally 47 tons.

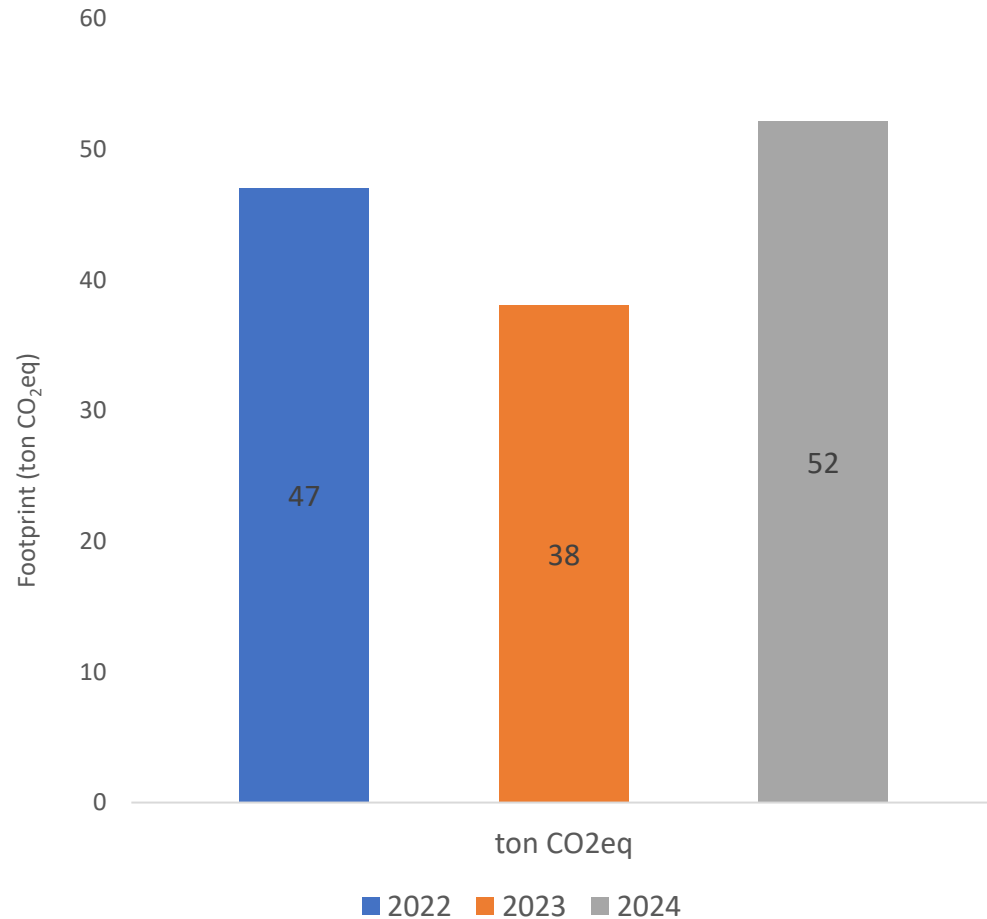
As a consequence, the **footprint of this category increased as well by 43% compared to 2023 values.**

The main increase was related to solvents waste, but there was also an increase in paper and cardboard packaging waste, glass waste and laboratory chemicals.

Additionally, a reduction was observed in the amount and footprint of aqueous solutions.

This data is in line with Chiman's business growth.

Scope 3.7 trends



Commuting-related emissions decreased by 19% in 2023 compared to 2022 but **rose again by 36% in 2024**, resulting in an overall 11% increase from 2022 levels.

This rise in 2024 is primarily due to an increase in the number of staff (+4 people) and a higher total of days worked on-site (in the office or lab), which led to a greater number of kilometers travelled by employees throughout the year.

A scenic landscape photograph featuring a stone path that leads from the foreground into a lush green field. In the background, there are rolling hills and mountains partially shrouded in mist or low clouds. The sky is overcast. A semi-transparent white rectangular box is centered over the middle of the image, containing the text '3. Results analyses'.

3. Results analyses

Chiman's carbon footprint trends

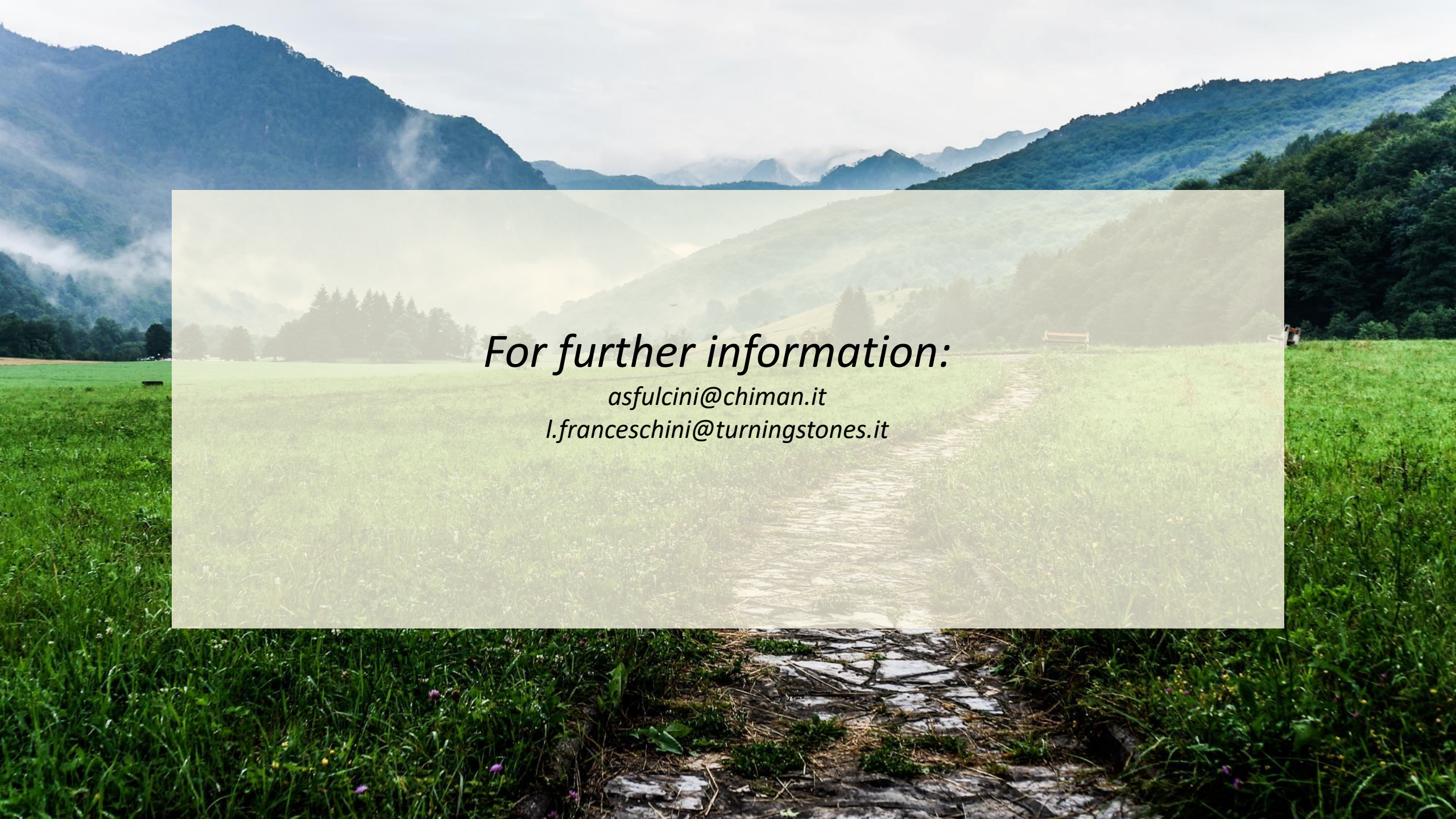
Scope	Footprint 2024 (ton CO2eq)	Footprint 2023 (ton CO2eq)	Footprint 2022 (ton CO2eq)	Difference 2024/2023 (%)	Difference 2024/2022 (%)
Scope 1	151	113	83	+34%	+82%
Scope 2	-	-	-		
Scope 3	247	228	172	+12%	+49%
• Scope 3.1	101	116	77	-5%	43%
• Scope 3.2	15	16	2	-6%	650%
• Scope 3.3	7,5	7,6	8	-1%	-6%
• Scope 3.4	1	1	1	0%	0%
• Scope 3.5	70	49	35	43%	100%
• Scope 3.6	1	1	2	0%	-50%
• Scope 3.7	52	38	47	37%	11%
• Scope 3.9	-	-	< 0,1		
Total	398	341	256	+19%	+59%



Chiman situation in 2024

- Chiman's carbon footprint for Scope 1 (for which near-term targets have been set) is influenced by the market developments of its main client and the **decision to reduce or eliminate the use of HFA-134a**. This year, the amount of HFA-152a tested and emitted was higher than 134a, meaning that business might be turning in the right direction.
- Currently, **the growth in this Scope 1 footprint is not aligned with the established targets**, but it **is consistent with the expected business expansion**. This situation is likely to remain similar for a few years, followed by a **gradual phase-out of HFA-134a**.
- As for **Scope 3**, which does not have specific targets, there has been a **gradual increase in the footprint in line with business growth**. In the coming years, this category is expected to grow consistently due to planned business expansion, also in terms of new facilities. This might mean that it could be necessary to update SBTi targets accordingly.
- Overall, **Chiman's footprint seems to be growing slower than its revenues**, potentially showing a decoupling between the two.



A scenic landscape featuring a stone path that leads from the foreground into a lush green field. In the background, there are rolling hills and mountains, some of which are shrouded in mist or low clouds. The sky is overcast. A semi-transparent white rectangular box is centered over the middle of the image, containing text.

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