

# ORGANIZATIONAL CARBON FOOTPRINT

In line with ISO 14064-1:2018 standard

**Executive Summary** 

Reporting year: 2022

Carbon Footprint of Organization

# 1. Introduction

Padana Tubi & Profilati Acciaio S.p.A. (hereafter "Padana Tubi"), with registered office in via Porta Murata 8/A, Guastalla (RE), is one of the European leaders in the production of welded carbon-steel and stainless-steel pipes for carpentry.

Padana Tubi is a company with 13 plants on a surface of about 400,000 square metres, all located in the territory of the Municipality of Guastalla (RE). These areas are dedicated to the storage and production of raw materials and finished products, respectively, for an average annual volume of about 800/900 thousand tons of steel produced and sold. The company has about 700 qualified employees.

In order to adopt the approach of the continuous improvement referring to its own environmental impacts, Padana Tubi has expressed the need to confirm the organisation's Carbon Footprint assessment path according to UNI EN ISO 14064-1:2019. The objective is to quantify the impact of its characteristic activities in terms of climate-changing gases (GreenHouse Gases - GHG), to compare it with the results of the "year zero" (2021) and to set itself improvement objectives, elaborating an integrated medium-long term strategy. The company renewed its ISO 14064 certification on 15/09/2023, the first certification was obtained on 15/07/2022.

The certified Organizational Carbon Footprint of Padana Tubi aims at analysing and quantifying both GHG emissions and removals associated to the company in 2022 (from 01/01/2022 to 31/12/2022).

# 1.1 Organizational boundaries

The operational control approach was adopted for the calculation of the GHG inventory. The activities of all the 13 plants are included in the organizational boundaries:

- 1. Facility A: offices, production site in via Porta Murata 8/A 42016 Guastalla (RE)
- 2. Facility B: plant, production site in via Roncaglio 22/A 42016 Guastalla (RE)
- 3. Facility C: plant, warehouse in via Dossetti 42016 Guastalla (RE)
- 4. Facility D: plant, production site in via De Gasperi 11 42016 Guastalla (RE)
- 5. Facility E: plant, production site in via Togliatti 42016 Guastalla (RE)
- 6. Facility F: plant, production site in via Ferrari 4/A 42016 Guastalla (RE)
- 7. Facility G: plant, production site in via Dossetti 42016 Guastalla (RE)
- 8. Facility H: plant, warehouse in via Nenni 42016 Guastalla (RE)
- 9. Facility I: plant, warehouse in via Dossetti 42016 Guastalla (RE)
- 10. Facility L: plant, warehouse in via Nenni 42016 Guastalla (RE)
- 11. Facility M: plant, warehouse in via Dossetti 42016 Guastalla (RE)
- 12. Facility N: plant, warehouse in via Porta Murata 42016 Guastalla (RE)
- 13. Facility O: plant, production site in via Salati 4/A 42016 Guastalla (RE)

Carbon Footprint of Organization

# 2. Results of Carbon Footprint

The Carbon Footprint of Padana Tubi for 2022 is equal to **1,495,959 t of CO<sub>2</sub>eq**, considering the location-based approach, and **1'475'488 t of CO<sub>2</sub> eq** considering the market-based approach. This value includes the company's value chain, considering both direct and indirect emissions considered as significant according to the significance analysis.

Category/ Source		Total GHG emissions – LB [tCO₂eq]	Category contribution [%] (location- based)	Total GHG emissions – MB [tCO₂eq]	Category contribution [%] (market- based)
1	Direct emissions from stationary combustion	7'618	0,51%	7'618	0,52%
	Direct emissions from mobile combustion	785	0,05%	785	0,05%
	Direct process emissions and removals arise from industrial process	-	-	-	-
	Direct fugitive emissions	0	0,00%	0	0,00%
	Direct emissions and removals from Land Use Change and Forestry	-	-	-	-
2	Indirect emissions from imported electricity	16'935	1,13%	0	0%
	Indirect emissions from imported energy	-	-	-	-
	Emissions from Upstream transport and distribution for goods	72'749	4,86%	72'749	4,93%
	Emissions from Downstream transport and distribution for goods	156'425	10,46%	156'425	10,60%
3	Emissions from Employee commuting	1'495	0,10%	1'495	0,10%
	Emissions from Client and visitor transport	-	-	-	-
	Emissions from Business travels	6,71	0,00%	6,71	0,00%
	Fuels (cat.1 mobile combustion) upstream emissions	178	0,01%	178	0,01%
	Emissions from Purchased goods & services	1'213'258	81,1%	1'213'258	82,2%
	Emissions from Capital goods	18'193	1,22%	18'193	1,23%
	Emissions from the disposal of solid and liquid waste	203	0,01%	203	0,01%
4	Emissions from the use of assets	-	-	-	-
	Emissions from the use of services that are not described above	-	-	-	-
	Fuels (cat.1 stationary combustion) and electricity upstream emissions (location-based)	7'434	0,50%	7'434	0,26%
5	Emissions or removals from the use stage of the product	-	-	-	-
	Emissions from end-of-life stage of product	681	0,05%	681	0,05%
	Emissions from downstream leased assets	-	-	-	-
	Emissions from franchising	-	-	-	-
	Emissions from investments	-	-	-	-
	TOTAL	1'495'959	100%	1'475'488	100%

Table 1. GHG emissions per category

In the market-based approach, the energy covered by Guarantee of Origin (GO) certificates is considered (100% in the case of Padana Tubi), in the location-based approach the national energy mix is considered.

Category 4, which groups indirect emissions of product and services purchased and used by the company, is the most contributing category in the inventory, followed by Category 3 (indirect emissions related to transport processes), Category 2 (indirect emissions related to imported electricity), Category 1 (direct emissions), and Category 5 (indirect emissions associated to the use of products), as shown in Figure 1.

In particular, the greatest contributions to sub-category 4.1, which is 81.1% of all the inventory, come from purchased carbon-steel coils, followed by stainless-steel coils and zinc-coated steel coils, as shown in Figure 2.

#### Carbon Footprint of Organization

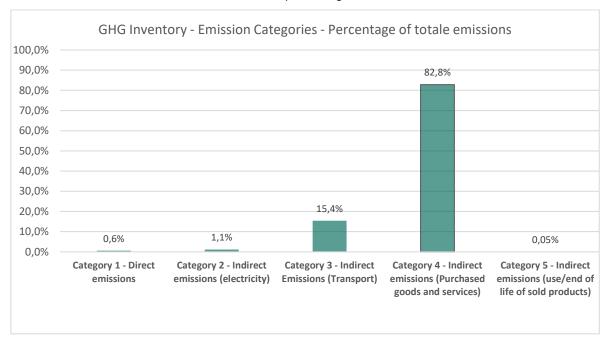


Figure 1. Category breakdown

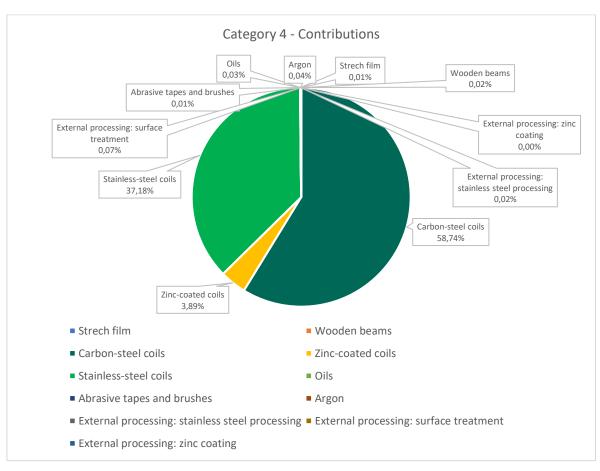


Figure 2. Sub-category 4.1 breakdown

The Carbon Footprint results split per plants show, in absolute terms, that plant B and plant A (for carbon-steel pipe production) and plant D (for stainless-steel pipe production) have the highest Global Warming Potential (GWP).

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Plant	Percentage
A – via Porta Murata	29,5%
B – via Roncaglio	35,8%
C – via Dossetti	0,01%
D – via De Gasperi	27,9%
E – via Togliatti	0,09%
F – via Ferrari	0,08%
G – via Dossetti	5,68%
H – via Nenni	0,008%
I – via Dossetti	0,003%
L – via Nenni	0,004%
M – via Dossetti	0,006%
N – via Porta Murata	0,001%
O - via Salati	0,889%
TOTAL	100%

Table 2. Emissions detailed per plant