Carbon Footprint Management Plan

DRUKARNIA dimograf

2025

Carbon Footprint Management Plan	
Organisation:	Drukarnia Dimograf Sp. Z o.o.
Month / Year:	2025
Verification Scope:	1-2-3
Contact person:	Agnieszka Pawłowicz-Mariat
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Carbon Footprint Management Plan

This Carbon Footprint Management (CFM) Plan sets out Drukarnia Dimograf's commitment to measure and monitor its carbon footprint over time while continuously reducing its GHG emissions to lessen the negative impacts of climate change. The CFM plan also helps the organisation to protect and enhance future business growth and value creation.

This plan contains the organisation's carbon footprint management and monitoring approach, GHG emissions reduction targets, and an action plan for achieving reductions over time. Furthermore, the CFM plan evaluates the quality of the organisation's carbon footprint efforts relating to data collection and calculation methods, data sources, processes, and activities that contribute to material emissions, as well as any estimates or assumptions used in calculations. Data quality assessments also indicate areas for improvement over time.

Any question regarding this CFM plan may be forwarded to:

Contact person
Name: Agnieszka Pawłowicz-Mariat
Position: Certification and Sustainability Manager
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Organisation Background

The Dimograf's story started in 1989 by three person team. Currently Dimograf is one of the biggest regional printing houses specialised in producing books, calendars and advertising materials.
The Dimograf headquarters located is in Bielsko-Biała, Poland. Around 250 employees are working on the 11 000m^2 space producing approximately 27 million articles including around 19 million books.
Looking into the future together with innovation, modernisation of equipment and infrastructure, staff development.
Looking to the future conduct Dimograf to take an action for environment sustainability and take part for measuring and reducing own impact for the climate.
We believe that the Carbon Footprint Management will show out innovation, will meet with client's demand and will be part of the sustainability reporting.

1. Corporate Climate Policy

Drukarnia Dimograf strives to reduce its climate impact by developing and implementing a carbon footprint management plan. Drukarnia Dimograf implement two scope to reach its plan:

- Corporate Carbon Footprint – to cover the legal entities in the organisation scope
- Product Carbon Footprint – to cover the materials and services produced and delivered. This scope includes the product life cycle defined by the Drukarnia Dimograf.

The Carbon Footprint Management Plan is review once a year and publicised after the annual audit completing.

Drukarnia Dimograf takes responsibility for our business practices and the CO_2 emissions resulting from our activities. This responsibility will be carried out through the following guidelines:

- Drukarnia Dimograf will demonstrate a high level of commitment and adopt best practices towards climate change mitigation.

- Drukarnia Dimograf will work to reduce its annual GHG emissions level by avoiding unnecessary emissions, improving energy efficiency, and maintaining climate responsible business practices across its value chain – hereby improving our corporate and product carbon footprint.

- Drukarnia Dimograf will ensure that related business policies, such as procurement and travel policies, are aligned with intentions described in this policy statement.

- Drukarnia Dimograf will identify and act upon areas and practices where reasonable investments can result in significant GHG emission reductions. These shall be described in this carbon footprint management plan.

- Drukarnia Dimograf will establish a method for annual monitoring and reporting of our GHG emissions. Monitoring, documentation, and reporting shall be complete, consistent, accurate,

relevant, and transparent, and comply with Preferred by Nature's Carbon Footprint Management Standard.

- Drukarnia Dimograf will communicate consistently and transparently about our climate policy, reduction targets and plans, and achievements.

- Drukarnia Dimograf will ensure that any carbon credits used to offset unavoidable or non-reducible GHG emissions come from credible, sustainable, and additional projects.

- Drukarnia Dimograf will work towards carbon neutrality through a combination of emissions reductions and offsetting initiatives.

- Drukarnia Dimograf will demonstrate efforts to encourage business partners and clients to also adopt climate-friendly business, production, and consumption behaviours and practices.

Jacek Mrzygłód

Executive Vice President

Bielsko-Biała, 14.10.2020.
Update 10.06.2025

2. CFM Overview and Approach

The following outlines the focus of our carbon footprint along with relevant processes and quality management measures related to our plan.

I. Subject of analysis Company and product certification

II. Justification of base year: 2019 – to gather more complete data

III. Staff responsibilities:

Piotr Kaczmarzyk – production data

Marek Makuch - the accounting system and business travel data

Karolina Zielińska, Mariusz Stępień- the supply system from suppliers

Joanna Frydrych, Angelika Wegrzyn – the final product transport data

Małgorzata Babińska, Merk Gibas – the employees data and the HSE data

Tomasz Zaloudik – responsible for the internal data system

Mariusz Kolodziejczyk – innovation for the internal system

Agnieszka Mariat – responsible for the CF data: collecting and supervising data, corporate and product calculator

IV. Staff training takes place once a year according to a pre-prepared format of which a proper record is maintained with information on the participants, etc.

V. Documentation: The "CARBON FOOTPRINT MANAGEMENT PLAN" is kept both in hardcopy and electronic forms and is available to interested parties, both internal (employees) and external (auditors, public). The documentation is reviewed annually as part of the internal audit and is kept for 5 years.

VI. Data collection: Data collection is based on the corporate accounting system and the internal information system (WebKalk). Internal company and employee records are also used where relevant.

VII. Calculation tools: To calculate the carbon footprint, a tool provided by Preferred by Nature is used (in Excel format) in which the values for the individually monitored data, emissions factors and other data necessary for the calculation are entered.

VIII. Performance monitoring: An internal audit is conducted annually which focuses on the assessment of the data input, calculation of the carbon footprint, data quality, data collection and the education of employees.

IX. Offsetting procedures: Offsetting will be used to compensate part of the corporate carbon footprint and to produce Carbon Neutral Products as requested by customers.

X. The calculators don't include external services due to their very low impact on emissions (less than 1%).

XI. The final result of calculation is increased of 3% buffer to cover low impact emission

3. Organisation's Process Map and Scope List

3.1. Process Map

Process of production book, paper product starts from the client's request. The customer service team is preparing official order to the calculation department. Calculation provide all information including the specific paper and other necessary materials based on the client specification and materials availability, and all production chain. Purchasing and calculation department working together to provide the best solution and options remining the materials availability and timing request. After client's confirmation book production starts. That manufacture include DTP and CTP department, printing, binding and packing process. The final product is shipped to the client facility as in the order or picked up by the client own transport. The transport is organised by Logistic department.

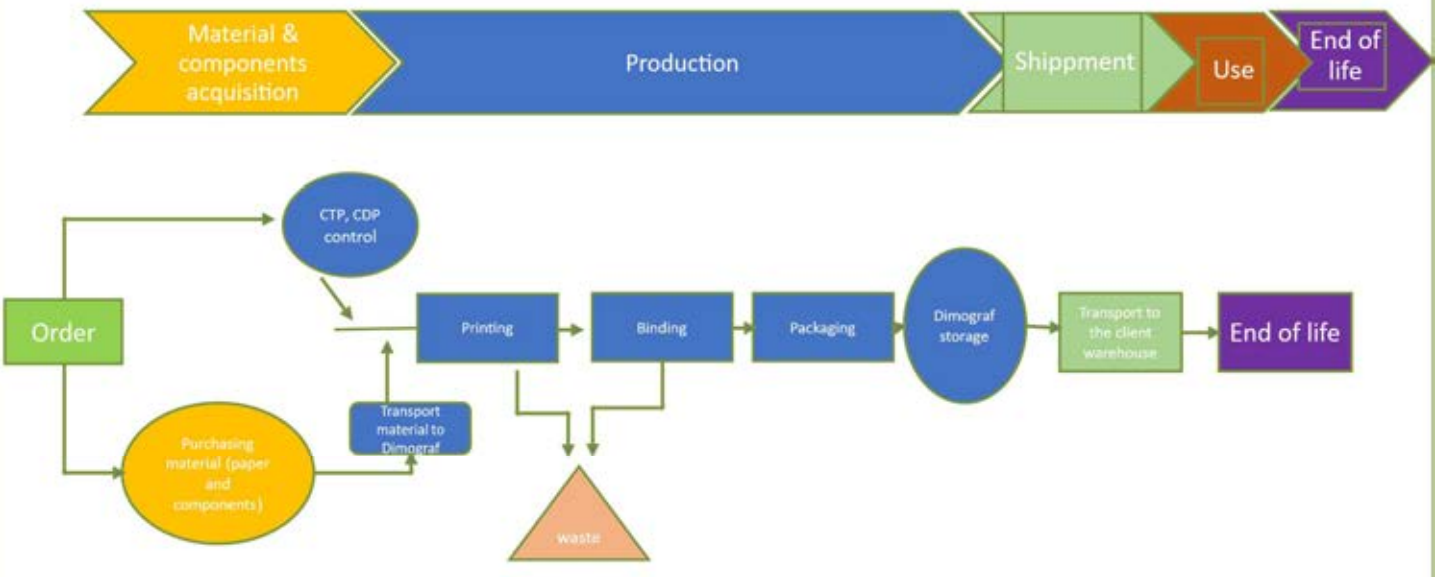


Figure 1 Process map

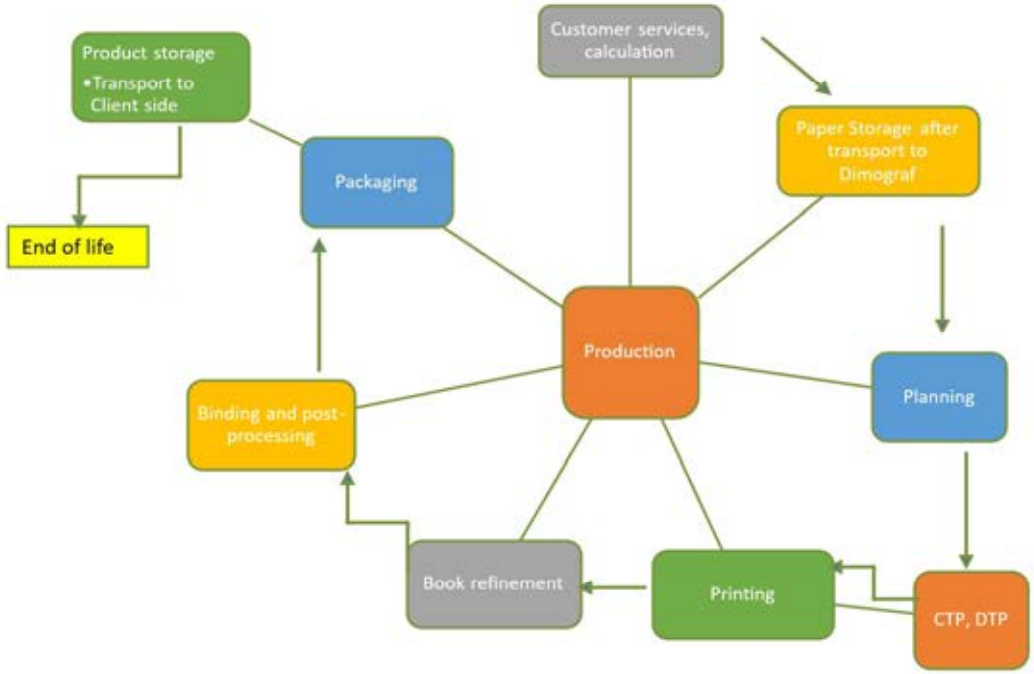


Figure 2 Product Life Cycle

3.2. Scope List

Scope 1	Description
1.1 Emissions from fuel combustion in owned or controlled boilers, furnaces, vehicles – e.g., transport of products or employees in company owned cars	Emission for LPG gas, petrol and gas heating use in own production, based on the invoices. Emission for company car based on the fuel consumption

Scope 2	Description
2.1 Emissions from the generation of purchased electricity consumed by the company in production, office, and storage facilities	Emission for the purchasing electricity, consumption reported after invoices. Since 2022 certificated renewable electricity

Scope 3 (Upstream)	Description
3.1 Land use change (unless included in life cycle emission factors for purchased products)	**N/A**
3.2 Capital goods (extraction, production, and transportation of capital goods)	**N/A**
3.3 Extraction, production, transportation and storage of goods and services purchased or acquired	Material transport from the producer/supplier to the Dimograf. Information from the purchasing department based on the material orders. All materials purchased for the production are reported.

Scope 3 (Reporting Company)	Description
3.4 Business travel: business-related activities during the reporting year (by air, employee-owned vehicle, public transport, and taxi)	Business trips including domestic and international delegations, including trips by plane, car (company or own), public transport, ferry. Based on the annual delegation report.
3.5 Waste generated in operations and offices	Based on the annual internal report of all wastes
3.6 Upstream product transportation by third party	Apply for the spiral binding transport
3.7 Transportation of employees between their homes and their worksites	Emission calculated by the employee's oral information, since November 2023 it will be carried out the official employee survey to collect information for the type of transport to/from Dimograf, type of fuel for the car transport, as a driver or co-passenger and the distance in [km].
3.8 Emissions arising from hotel accommodation due to business travel	Reporting by the hotel invoices and the delegation's reports.
3.9 Downstream transportation and distribution of products sold by the reporting company - including outbound courier deliveries of packages and retail and storage (in vehicles and facilities not owned or controlled by the reporting company)	Downstream transport for final products to the client's facility. Reporting based on the internal transport system managed by the logistic department. Emission is calculated after collecting all information about type of delivery car, exhaust gas certificate, loading %.
3.10 Fuel- and energy related lifecycle emissions (not included in scope 1 or scope 2) e.g. Well-to-Tank (WTT)	N/A

Scope 3 (Downstream)	Description
3.11 Processing of sold products (processing of intermediate products sold in the reporting year by downstream companies, e.g., manufacturers)	N/A

3.12 End of life treatment of sold products (waste disposal and treatment of products sold by the reporting company.	Calculated for the water treatment based on the water invoices report.
3.13 Downstream leased assets (operation of assets owned by the reporting company (lessor) and leased to other entities in the reporting year)	N/A
3.14 Outsourced activities and Franchises (operation of franchises in the reporting year, not included in Scope 1 and Scope 2 – reported by franchisor)	Emission for the cooperation calculated by internal system.
3.15 Use of sold products (end use of goods sold by the reporting company in the reporting year)	N/A

Table 1. Scope List for the corporate carbon footprint calculator for Drukarnia Dimograf

4. Carbon Footprint Results

4.1. Base year carbon footprint and boundaries

4.1.1. Corporate Carbon Footprint

The base year for our CFM plan, calculated in 2019 amounts to:

Total (Absolute) GHG emissions: 19 351 tCO_2e

Intensity (Ratio) terms: 2,28 tCO_2e per ton of product

Emissions by Scope:

Scope 1	Scope 2	Scope 3
136,86 tCO_2e	**2 607,80 tCO_2e**	**16 043,06 tCO_2e**

Table 2. Base year carbon footprint by the scopes

4.1.2. Product Carbon Footprint

Emission value for the Product Carbon Footprint is calculated for the Typical book product:

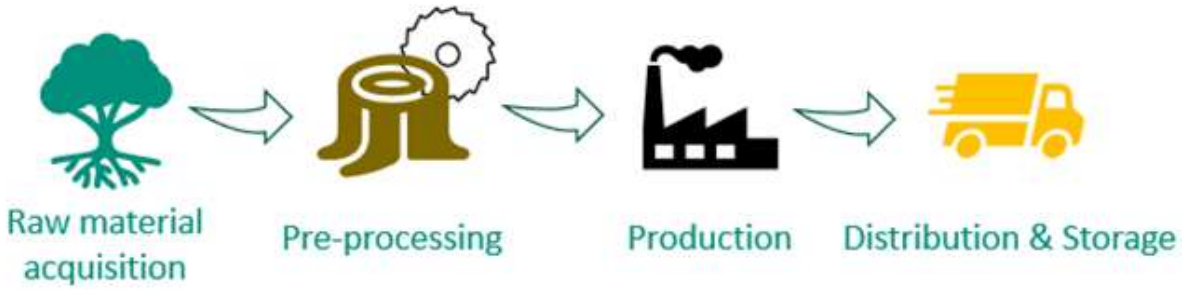
The parameters of typical softcover book (glue cover) product

- Format: 165x240mm
- Print run: 2000 pieces
- Inside: 256 pages, 4/4 colors, 90 [g] silk coated paper
- Cover : 4 pages, 4/4 colors, 250 [g] cardboard GC1 paper, mall lamination
- Binding: PUR glue

The base year for our CFM plan, calculated 2019 amounts to:

Total carbon footprint: 1,02 kgCO2e per piece

Emissions by life cycle stage:



59,5% of total	13,8 % of total	15,7% of total	11,0 % of total

Table 3. Carbon footprint of typical product in the main steps of the product life cycle

Drukarnia Dimograf has in the offers the product call the CO2 neutral product. Any client's order can by analysed through product carbon calculator. Product carbon calculator include emission factors of all materials, process and delivery carbon footprints. In this document is presented only the product carbon footprint of the typical (the most standard) product under Dimograf manufacture.

4.2. Carbon Footprint emissions

The carbon footprint will be monitored annually and compared with the carbon footprint of the base year. The company's goal is to reduce the carbon footprint on a year-on-year basis.

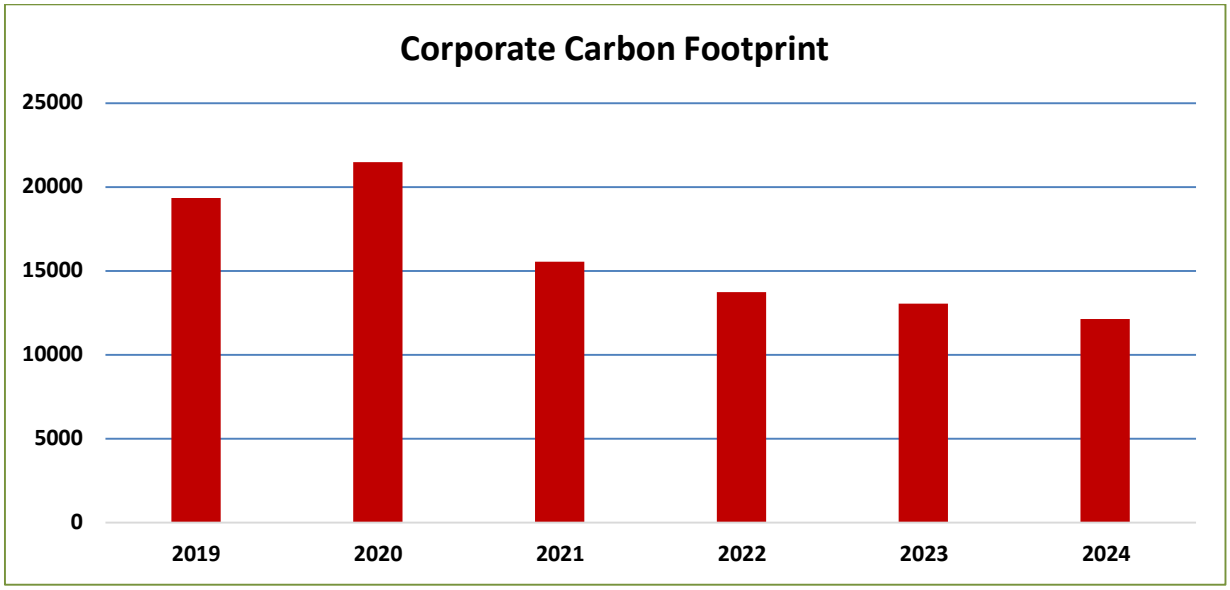
Scope 1	Scope 2	Scope 3
176,423 tCO_2e	0 tCO_2e	11 600,22 tCO_2e

Table 4. 2024 carbon footprint by the scopes

Corporate Carbon Footprint

Measure	Base year 2019	2020	2021	2022	2023	2024
Absolute (including 3% buffor)	19 351 tCO_2e	21 479 tCO_2e	15 548 tCO_2e	13 742 tCO_2e	13 049 tCO_2e	12 130 tCO_2e
% reductions			19,7%	28,9%	32,5%	37,2%
Intensity (tCO_2e per kg)	2,28 $kgCO_2e$ per kg of product	2,22 $kgCO_2e$ per kg of product	1,56 $kgCO_2e$ per kg of product	1,558 $kgCO_2e$ per kg of product	1,428 $kgCO_2e$ per kg of product	1,22 $kgCO_2e$ per kg of product
% reductions		2,6%	31,5%	31,7%	37,3%	46,4%

Table 5. Absolute and intensity corporate carbon footprint by the measuring years



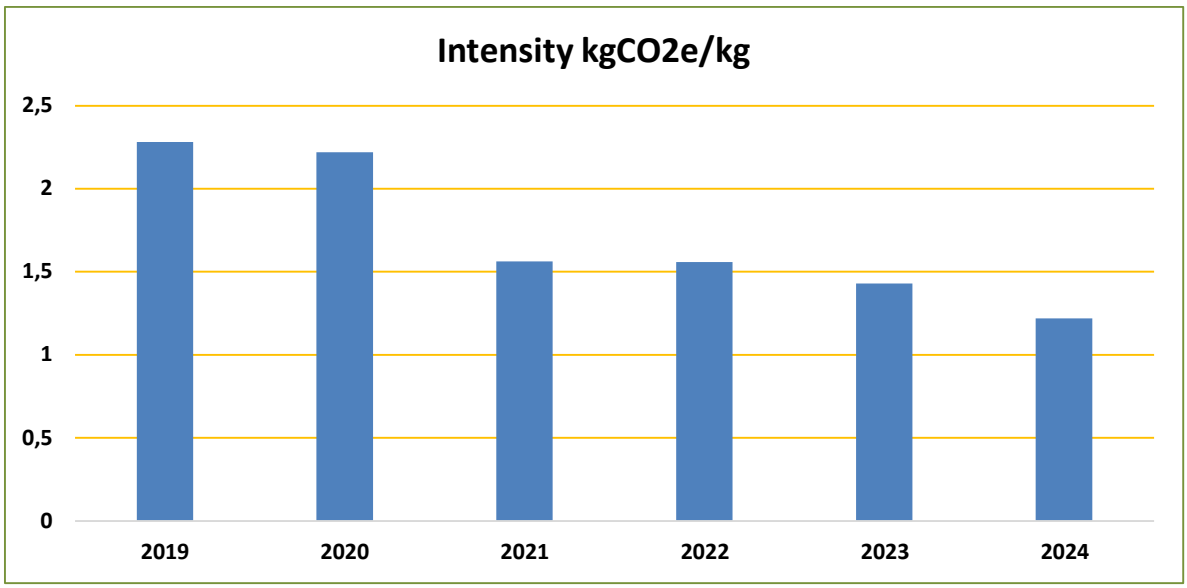
Graph 1. Corporate absolute carbon footprint progress

Corporate Carbon Footprint is reducing year by year compare the base year 2019, except 2020. On 2020 the corporate calculator have been developed for more information missing in the reporting

2019. For this reason the absolute mount of 2020 was increasing. Each year the corporate calculator is developed to cover more information and to present the most reliable final value. The corporate calculator has been checked each year by auditors and is updated by their remarks.

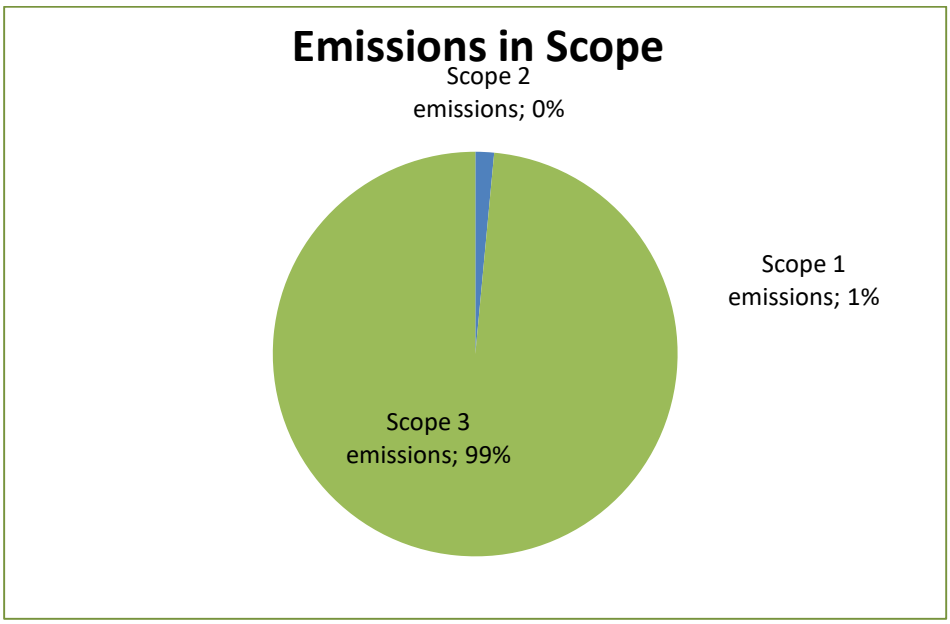
The result of 2024 Corporate carbon footprint shows the reduction since the base year (2019) of 37,2% and the reduction for 4,7% from 2023.

The below graph of the intensity measuring of the carbon footprint depend of the total carbon footprint result and the amount of total weight manufactured products. The total weight of products made during reporting year strongly has a strong impact to the final result of intensive carbon footprint. For 2024 the result of intensive carbon footprint for the around 9 948 tones of final products shows the reduction since 2019 of 46% and 9% of reduction from previous period of 2023.

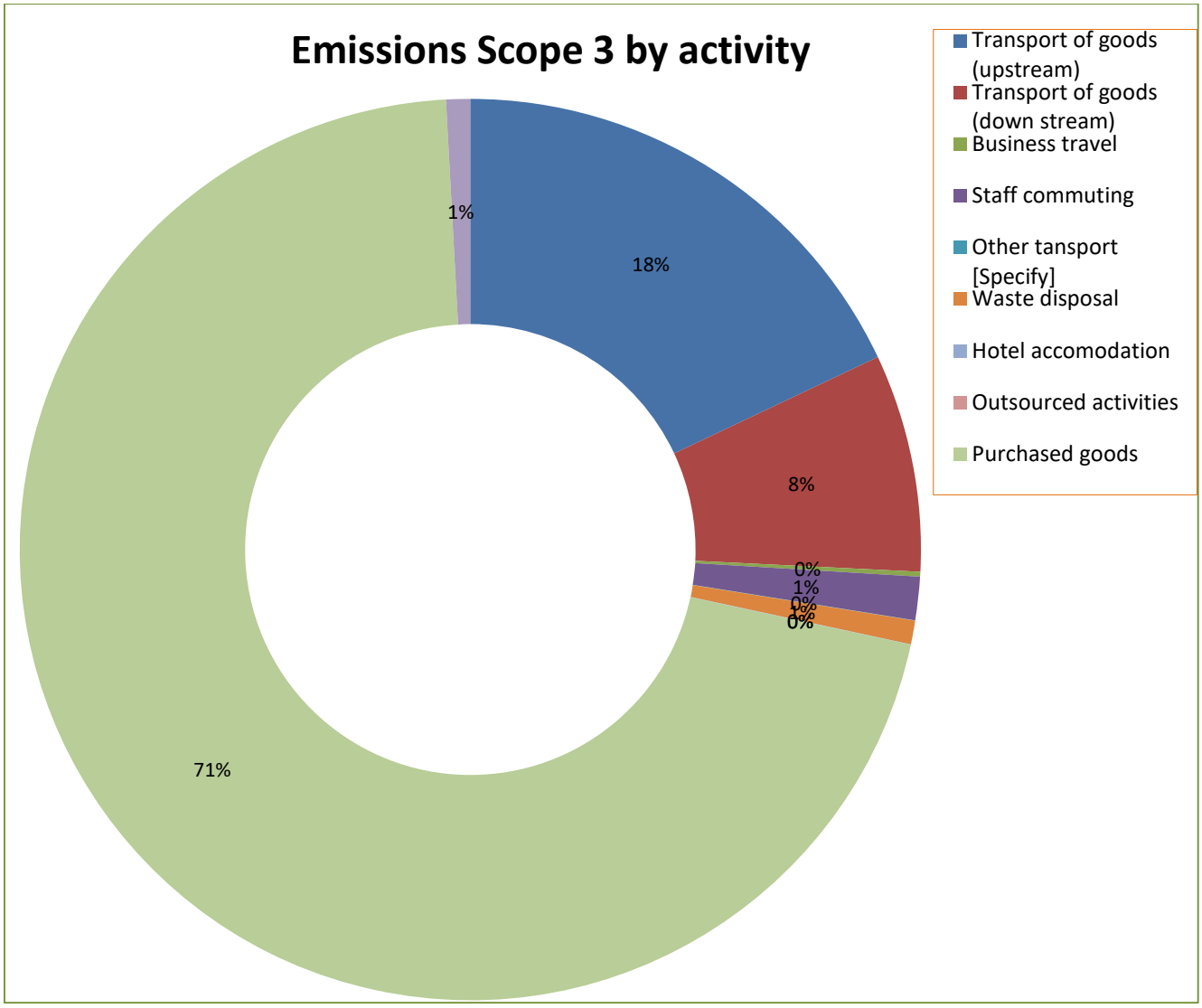


Graph 2. Corporate intensity carbon footprint progress

The biggest impact for the company carbon footprint have activities of the scope 3 what presents the graph 3. The graph 4 presents the percentage influence by the activity of Scope 3.



Graph 3. Scopes impact to the final result



Graph 4. Influence of the activity of Scope 3

The graph 4 clearly presents the activity under Scope 3 strongly determinate by the purchased materials and their transport form factories to the Dimograf facilities and the downstream transport final's product. The materials used in the production are purchased in accordance with the clients design. The product with lower emission not always meet the client's vision and the final purpose of using.

On the other side still not all of materials has exact emission factor calculated by their own factories. In this cases the general emission factor is applicable to the calculation (follow the DEFRA base and the Preferred by Nature data base).

Some companies also keep their emission data as the confidence data and they don't share those information without confidence letter and they denied using this figure to third parts.

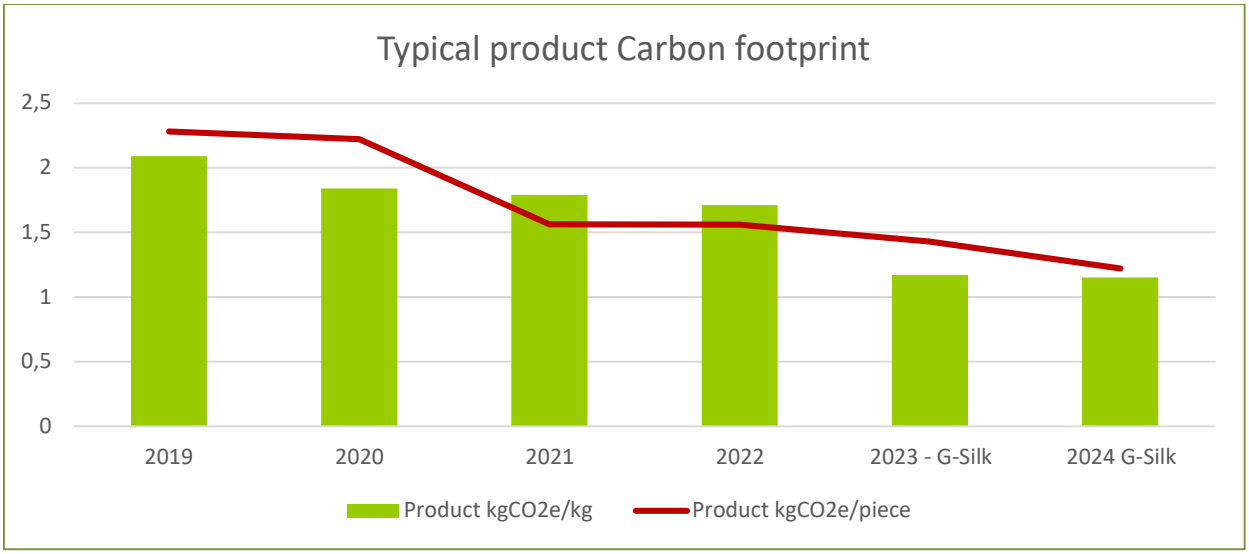
The difference between upstream and downstream transport is an excellent example how important is management of Dimograf's logistic department. The exact transports management its very important on the way to reduce the final emission and effort in this activity gives the real dimension of their effort.

Product Carbon Footprint for typical product

Measure	Base year 2019	2020	2021	2022	2023 *	2024
Absolute	2048,2 $kgCO_2e$/print run	2173,53 $kgCO_2e$/print run	1810,4 $kgCO_2e$/print run	1670,99 $kgCO_2e$/print run	1)1145,93 kgCO2e/print run 2)1581,62 kgCO2e/print run	1)1126,46 kgCO2e/print run 2)1522,725 kgCO2e/print run
% reductions			11,6%	18,4%	1)~40% 2)~23,7%	1) 50% 2) 25,7%
Product CF per kg of typical product	2,09 $kgCO_2$/kg	1,84 $kgtCO_2e$/kg	1,79 $kgCO_2e$/kg	1,71 $kgCO_2e$/kg	1) 1,17 $kgCO_2e$/kg 2) 1,62 $kgCO_2e$/kg	1) 1,14 $kgCO_2e$/kg 2) 1,54 $kgCO_2e$/kg
% reductions		12,0%	14,4%	19,2%	1) 44,0% 2) 23,0%	1) 45,5% 2) 26%
Product CF per kg of product	2,28 tCO_2e per ton of product	2,22tCO_2e per ton of product	1,56 tCO_2e per kg of product	1,558 tCO_2e per ton of product	1,428 tCO_2e per ton of product	1,22 tCO_2e per ton of product
% reductions		2,6%	31,5%	31,7%	37,3%	46%
Paper inside	Quatro Silk	Quatro Silk	Quatro Silk	Quatro Silk	1) G-Silk 2) Quatro Silk	1) G-Silk 2) Quatro Silk

***The calculation for the typical product include the lamination for the cover from 2023**

Table 6. Typical product carbon footprint by the measuring years



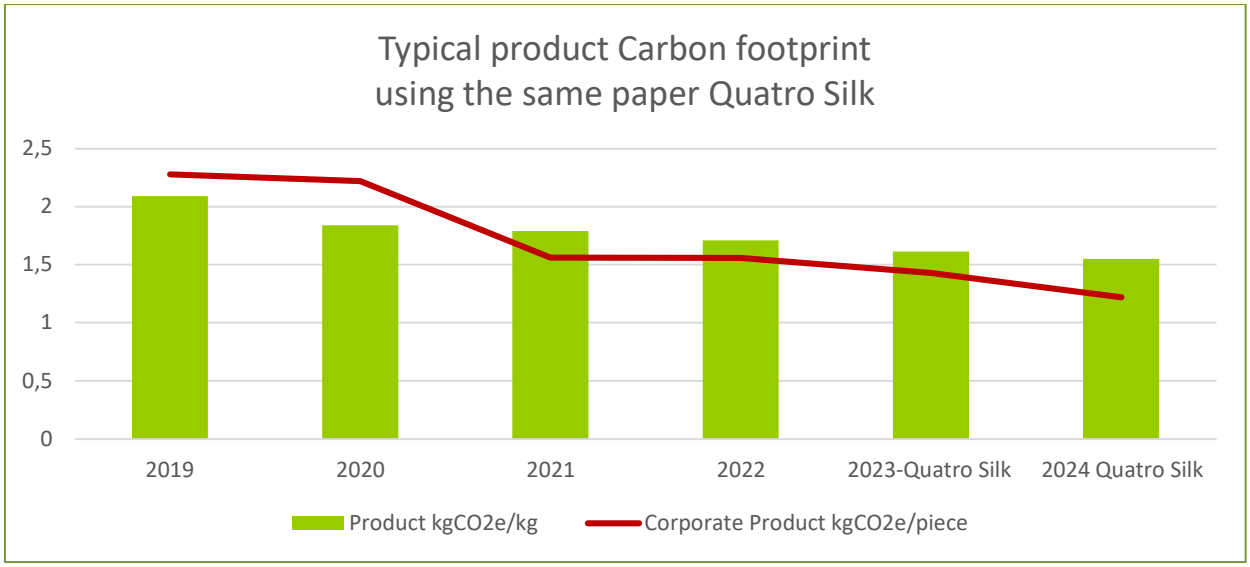
Graph 5. Typical product carbon footprint progress

Product Carbon Footprint for typical product determinate by the paper inside and emission

Below tables charts how the emission changes due to different paper mark used (inside the same paper type).

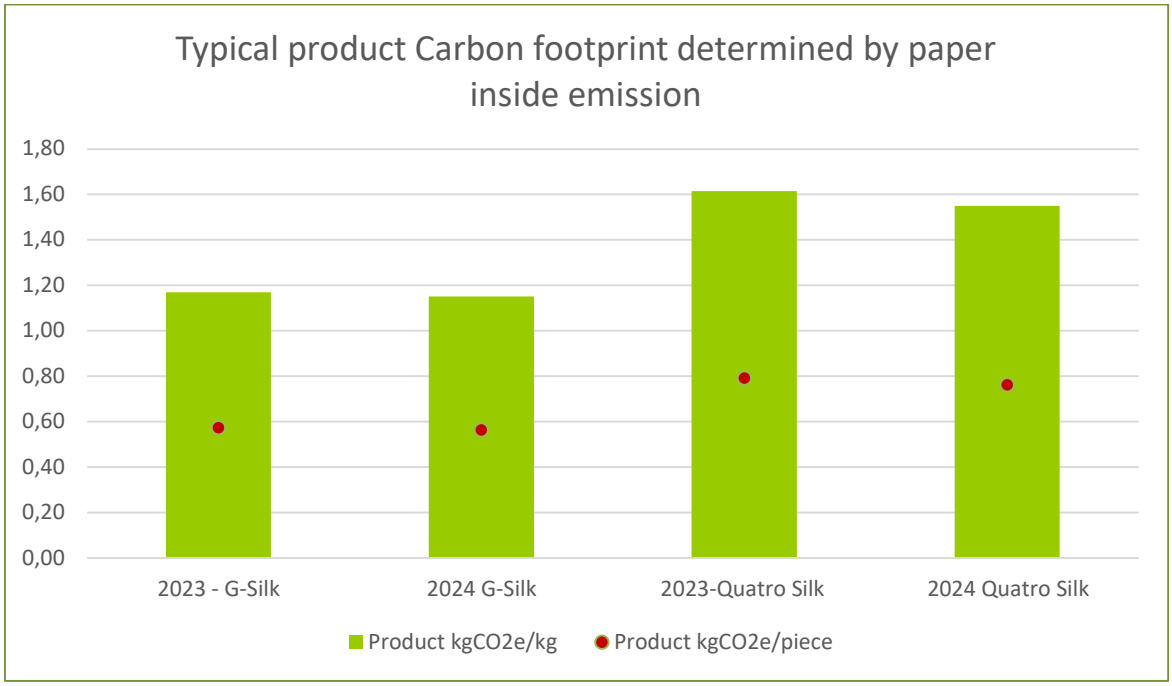
Measure	2023 G-Silk	2024 G-Silk	2023 Quatro Silk Emission 2023	20234 Quatro Silk emission 2024
Absolute	1145,93 $kgCO_2e$/print run	1126,46 $kgCO_2e$/print run	1581,62 $kgCO_2e$/print run	1522,725 kgCO2e/print run
Product CF per kg of typical product	1,17 $kgCO_2e$/kg	1,14 $kgCO_2e$/kg	1,61 $kgCO_2e$/kg	1,54 $kgCO_2e$/kg

Table 7. Typical product carbon footprint paper brand comparing



Graph 6. Typical product carbon footprint progress for the Quatro Silk paper

In this case charts shows how the emission of typical product changes due to different paper mark used (inside the same paper type) and emission paper. As many companies the paper company are developing their databases and the emission calculation. In this examples the emission of the typical product is completely different due to different paper marks. As well shows different for using the same paper mark but with the reported emission from Profile Papers on 2023 and the latest one on 2024.



Graph 7. Typical product carbon footprint progress depend of paper inside brand

4.2.1. GHG Emissions Reductions and Removals

Drukarnia Dimograf has obligated to reduce carbon footprint on his activity. Since Dimograf has started to measuring his CF the situation geopolitical was changed a lot and has made an impact to terms of the company's activity. The global situation of COVID virus than the war in Ukraine is driving Dimograf to find a new solution to continue operation and cover the material by a new suppliers or by materials making bigger impact for the final emission.

5. GHG emissions reductions

5.1. Reduction targets

Drukarnia Dimograf is committed to lowering our climate impact by setting ambitious emissions reduction targets. These targets represent an important tool for driving GHG emissions reductions across the organisation and its value chain.

Besides serving to mitigate climate change, these targets helps reduce the business and reputational risk associated with the climate challenge, helps achieve cost savings, stimulates organisational innovation and prepares the organisation for any future mandatory emission reporting requirements and regulation.

Reduction targets:

Description	Target	Year	Scope	Source
Intensity Ratio (tCO_2e per kWh)	100%	2021-20XX	Scopes 2	Internal - transition to renewable energy

Description	Target	Year	Scope	Source
Intensity Ratio (tCO_2e per kWh)	10%	2020-2025	Scopes 3	Lighting system change
Intensity Ratio (tCO_2e per kg)		2020-20XX	Scopes 3	Reducing the amount of waste paper per tonne of product

Table 8. Target reduction

Reduction reach by new technology machine for the typical product.

Description	Year 2022	Old tmachine	New machine	Result
Absolute (tCO_2e per print run)	2022	1,751	1,671	Using a new machine of the last technology give ~5% reduction (scope 1-2-3)
Intensity Ratio ($kgCO_2e$ per kg)	2022	1,787	1,705	

Table 9. New machine emission reduce

Bellow the comparison between machine used in the Dimograf up to August 2025 and a new one installed in the second half of 2025. Installation of new machines will let Dimograf in the optimal

condition to reduce paper material amount and safe the energy . Those machine invests give Dimograf opportunity to produce more books with lower carbon footprint impact to environment.

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Zestawienie wartości redukcji emisji C02 przy zadanych parametrach produkcyjnych dla maszyn SM 102-4-P (2012) & XL 106-4-P (2025);

	Dotyczy	SM 102-4-P (2012)	XL 106-4-P (2025)
1	Ilość narządów rocznie	4.500	4,500
2	Średnia wysokość nakładu	6,500	6.500
3	Ilość arkuszy netto	29.250.000	29.250.000
4	Ilość arkuszy narządowych na 1 narząd	155	100
5	Ilość makulatury narządowej (arkuszy/rok)	697 ,500	450.000
6	% makulatury procesowej	1,8%	1,3%
7	Ilość makulatury procesowej (arkuszy/rok)	526.500	380.250
8	Ilość arkuszy brutto rocznie	30.474.000	30.080.250
9	Wydajność operacyjna netto ark./h	8.700	12.400
10	Wymagana ilość godzin; produkcja, przyrząd, przestoje	5.222	3.342
11	Szacowane całkowite zużycie energii [kWh] (na rok)	277.466	232.416
12	Szacowane zużycie energii kWh na 1000 arkuszy	8,91	7,73
13	Dozowanie alkoholu	4,5%	4,5%
14	Zużycie roczne alkoholu izopropylowego [litr]	1.525	1.070
15	Oszczędność w zużyciu alkoholu		29,84%
16	**Oszczędności & redukcja emisji C02**		
17	Szacowana oszczędność energii na 3000 arkuszy dla XL 106-4-P (2025)	1,18 kWh ; %	
18	Całkowita oszczędność energii dla XL 106-4-P (2025) [kWh]	35.542,09 kWh	
19	Oszczędność COP z redukcji ilości energii tj COJ przy współczynniku 0,84	0,84	29,86 t C02
20	Ilość zaoszczędzonych arkuszy z narządu & procesu dla XL 106-4-P (2025)	393.750 arkuszy	
21	Format arkusza x gramatura	620 x 860 x 135 g/m2	
22	Ilość zaoszczędzonych arkuszy [w tonach] dla XL 106-4-P (2025)	28,34 ton papieru	
23	Oszczędność C02 z redukcji papieru lt com dla XL 106-4-P (2025) przy współczynniku 1.28 t C02 na 1 tonę papieru.	1,28	36,28 t c02
24	Oszczędność C02 z redukcji alkoholu[1 002] dla XL 106-4-P (2025) przy współczynniku 3.8 kg G02 na 1 litr alkoholu IPA	0.0038	01,73 t c02
	Całkowita redukcja emisji dla XL 106-4-P (2025)		**67,86 t CO2**

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Zestawienie wartości redukcji emisji CO2 przy zadanych parametrach produkcyjnych dla maszyn

XL 106-8-P (2016) & XL 106-8-P (2025);

	Dotyczy	XL 106-8-P (2016)	XL 106-8-P (2025)
1	Ilość narządów rocznie	4 500	4 500
2	Średnia wysokość nakładu	4 500	4 500
3	Ilość arkuszy netto rocznie	20 250 000	20 250 000
4	Ilość arkuszy narządowych na 1 narząd	135	90
5	Ilość makulatury narządowej	607 500	405 000
6	% makulatury procesowej	1,4%	1,3%
7	Ilość makulatury procesowej	283 500	263 250
8	Ilość arkuszy netto rocznie	21 141 000	20 918 250
9	Wydajność operacyjna netto ark./h	10 500	12 400
10	Wymagana ilość godzin; produkcja, przyrząd, przestoje,	3 699	2 856
11	Szacowane całkowite zużycie energii [kWh]	408 828	354 937
12	Szacowane zużycie energii kWh na 1000 arkuszy	19,34	16,97
13	Dozowanie alkoholu	4,5%	4,5%
14	Zużycie roczne alkoholu [tr]	875	741
15	Oszczędność w zużyciu alkoholu		15,32%
16	**Oszczędności & redukcja emisji Co2**		
17	Szacowana oszczędność energii na 1000 arkusz dla XL 106 8-P (2025)	2,37 kWh; 12,26%	
18	Całkowita oszczędność energii na 1000 arkusz dla XL 106 8-P (2025)	49 582,84 kWh	
19	Oszczędność CO2 z redukcji ilości energii [t CO2] przy współczynniku 0,84	0,84	41,65 t CO_2
20	Ilość zaoszczędzonych arkuszy z narządu & procesu dla XL 106 8-P (2025)	222 750 arkuszy	
21	Format arkusza x gramatura	620 x 860 x 135 g/m2	
22	Ilość zaoszczędzonych arkuszy [w tonach] dla XL 106 8-P (2025)	16,03 tony papieru	
23	Oszczędność CO_2 z redukcji papieru [t CO2] dla XL 106 8-P (2025) przy współczynniku 1.28 t CO2 na 1 tonę papieru.	1,28	20,52 t CO_2
24	Oszczędność Co2 z redukcji alkoholu[t CO_2] dla XL 106 8-P przy współczynniku 3.8 kg CO_2 na 1 litr alkoholu IPA	0,0038	0,51 t CO_2
	Całkowita redukcja emisji dla XL-106-8 (2025)		**52,68 t CO_2**

Robert Wieczorek
Product Manager Press
Heidelberg Polska Sp. z o.o.

Table 10. Emission reduction for new machines

5.2. Other considerations

Drukarnia Dimograf is strongly interested to reduce the emission paper used for the book production. Working with the clients to encourage them for using paper with lower emission by promotion action and showing examples. Dimograf is also negotiated with paper producent to get the best condition for special form paper dedicated for the book request (minimalized the quantity for the cut paper format). The paper emission used in the production give the biggest impact to the ttl product emission. This impact is shown in the **part 4.2**

The other important topic is to reduce transport emission. Upstream shipment is put of Dimograf control. Downstream transport is regulated by the Dimograf and the team is working hard to combine a few addresses by a indicated vehicle and too load to maximum. The graph Emission Scope 3 by activity, presented in the **part 4.2,** is illustrated well the percentage participation of the upstream and downstream transport.

The control of the upstream shipment is still not fully depended from the Drukarnia Dimograf. Action were took place to request on the ordering level the information for the transport details. This action is still on going.

The specific production as a book is strongly depended from the client's request. To rich the satisfactory quality and effect, production book is based on the specific paper, what make emission higher. To purchase the cut format paper indicated for the production, which generate less waste, the print run has to be enough high.

5.3. Reduction plans

Drukarnia Dimograf intends to make real and committed efforts to lower its GHG emissions across its business activities, through the following actions.

Purchasing 100% green energy reduced the company carbon footprint in the 2021 for the first full year of this actions.

	Action Plan	Effect on Carbon footprint results
1	Partially change the heating system form gas to heat pomp	Reducing gas consumption and reducing the emission of scope 1 own gas heating around 30% (estimated 20 000 kgCO2e)
2	Solar panels- in the first step is planning to have instalation aprox. 50kWh. The extensionin of solar instalation in next phases will be up to 150 kWh	In the first step can give around 6-10% of electricity reduction.
3	Purchase of printing machines enabling the reduction of waste paper	Reduction of waste paper per tonne of product, reduction of input amount paper. The input paper for the typical product for the latest machine was estimated reduced of 0,14 kgCO2e/kg o product (on the example of typical product) For installed a new machines in the second half of 2025 the real result of reducing paper amount will be known in 2026.

Table 11. Action Plan

Another following action to reduce carbon emission:

Description	Status	Timeframe (implementation)
Transition to electric vehicles	Research possibility Some action in progress	2023-2035
LED and light fixtures	In progress.	2023-2025
Prevention interventions	Education and training of staff underway	2023-2030
Circular Economy (materials and emissions)	Partnership with suppliers *The EUDR regulation will have a big impact for the final list of Dimograf's suppliers.	2023-2030

Table 12. Following action to reduce emission

Due to purchasing 100% renewable energy the action taken in table above will not show the significant changes (it will be hide in the estimation for the purchased energy)

6. Offset Projects and Carbon Credits

6.1. Carbon Offset targets

Drukarnia Dimograf is committed to compensating a portion / all of our remaining GHG emissions. Carbon credits represent a pathway for mitigating global emissions outside of our organisation and value chain while providing an opportunity to invest in projects that align with our mission .

The following carbon credits have been purchased from Gold Standard® using the Climate+ Portfolio: Variety of projects and align with the principles for offsetting outlined in the Preferred by Nature CFM Standard.
Since Dimograf has achieved the Product carbon footprint certificate and could offer a CO2 neutral product to its clients, it was purchased 770 tons of carbon offset under Gold Standard up to the end September 2025. In this same period already more than 660 tons of offset have been settled for the CO2 neutral products.

Table below shows the offsetting for indicated projects by the product calculator

Project	Scheme	Amount	Year	Purchase status	Neutral
Climate+ Portfolio: Variety of projects	Gold Standard	20 tCO_2e	2021	Paid	Yes, settled 8,15 tCO2e
Climate+ Portfolio: Variety of projects	Gold Standard	80 tCO2e	2022	Paid	Yes, settled 69,9 tCO2e

Climate+ Portfolio: Variety of projects	Gold Standard	50 tCO2e	2023 (I-XII)	Paid	Yes, settled 65,24 tCO2e
Climate+ Portfolio: Variety of projects	Gold Standard	320 tCO2e	2024 (I-XI)	Paid	Yes, settled 275,908tCO2e
Climate+ Portfolio: Variety of projects	Gold Standard	300 tCO2e	2024 (I-XI)	Paid	Yes, settled 251,712tCO2e

Note: % compensation refers to portion of total carbon credits associated with project for that year

Table 13. Amount of purchased and settled carbon offsets

Table below shows the offsetting only the paper of projects by the Climate Partner

Project	Scheme	Amount	Year
Climate Partner: Variety of projects	Gold Standard VCS VERs + Regionales Engagement	352,86 tCO_2e	2019
Climate Partner: Variety of projects	Gold Standard VCS VERs + Regionales Engagement	1588,77 tCO2e	2020
Climate Partner: Variety of projects	Gold Standard VCS VERs + Regionales Engagement	2230,62 tCO2e	2021
Climate Partner: Variety of projects	Gold Standard VCS VERs + Regionales Engagement	1472,73 tCO2e	2022
Climate Partner: Variety of projects	Gold Standard VCS VERs + Regionales Engagement	2391,66 tCO2e	2023
Climate Partner: Variety of projects	Gold Standard VCS VERs + Regionales Engagement	1340,06 tCO2e	2024

Table 14. Climate Partner offset

The Total Company Carbon Footprint after reducing of offseted amount of tCO2e

	tCO2e
Total Carbon Footprint 2024 [convert to tCO2e]	**12 129,94**
Total Offseted tCO2e for the neutral product by Preferred by Nature in 2024 [tCO2e]	**275,908**
Total Offseted tCO2e of paper in Climate Partner in 2024 [tCO2e]	**1340,06**
Total Carbon Footprint with buffer after offset [convert to tCO2e]	**10513,97**

Table 15. 2024 Carbon Footprint result

6.2. Carbon Neutrality

Drukarnia Dimograf intends to reach carbon neutrality for product 2050 by convince partners to apply for the neutral products.

7. Data Quality

7.1. Data Quality Assessment

Drukarnia Dimograf attempts to collect and apply data that is actual and accurate to the greatest extent possible. This includes locating primary data for all activities under our control (and in particular Scope 1 and 2 emissions). Examples of sources of primary data used by the organisation include [actual litres of fuel consumed, kWh consumed, kg of material used, distances travelled, GHG emissions determined through direct monitoring, metering*).* Drukarnia Dimograf also tries to collect primary data for Scope 3 emissions when possible by using actual data calculated or collected by suppliers for specific sites, activities or processes. In any cases where primary data cannot be obtained, the organisation uses credible secondary data from scientific studies or government publications like DEFRA or KOBIZE publication, also from data base of Preferred by Nature. Similar secondary sources are also used to collect emission factors where real emissions are not available through direct measurement or suppliers.

The following table provides an overview of data quality issues that may/could arise due our data collection and measuring methods. The table represents potential data quality issues for current year 2025 and has been established based on the results of our data quality assessment process (see second table below).

Category or Process	Source	Quality issue	Results Δ
Scope 2 emissions	Electricity provider	Emission factors vary	0% difference of emissions due to certificated renewable energy
Scope 1 (onsite heat)	Direct emissions measurement	Correct meter DEFRA	+/- 1 difference of emissions
Scope 1 (fuel use)	Internal database	Correct meter DEFRA	+/- 2% difference of emissions
Scope 3 (materials)	Internal Database	Correct meter DEFRA, potentially provided by Preferred by Nature, for the paper materials based on the official documentation Profile Paper if available	Unknown but can be +/- 10% difference of emissions
Scope 3 (transport)	Internal Database	Calculated in internal system for downstream transport based on correct meter DEFRA Upstream transport estimated on correct meter DEFRA	+/- 10% difference of emissions

Table 16. Data quality

	ACTIVITY	SCOPE	DATA TYPE	
			Primary (exact)	Secondary (calculated,estimated)
1	FUEL USE IN OWN PRODUCTION	1	X	
2	FUEL USE IN OWNED OR LEASED VEHICLES	1	X	
3	ELECTRICITY & HEATING	2	X	
4	TRANSPORT OF PRODUCTS	3	X	
5	TRANSPORT OF INPUT MATERIAL	3		X
6	BUSINESS TRIPS	3	X	
7	STAFF COMMUTING	3	X	
8	WASTE	3	X	
9	PURCHASED MATERIAL	3	X	
10	HOTEL STAYS	3	X	

Table 17. Data type

The following table demonstrates the results of our data quality assessment based on the factors and data quality indicators as described in Section 3 of the Preferred by Nature Standard.
Internal scoring from 1(min)-5(max)

Considerations	Completeness	Age	Fit	Reliability
Calculation methods	5	5	N/A	5
Emission Factors	4	5	4	4
Primary data	5	5	5	5
Secondary Data	4	5	2	4
Sources	5	5	3	5
Scope 2 Data	5	5	N/A	5
Significant emissions	4	N/A	N/A	4

Note: Scale 1:5. Fit refers to technological representativeness, or degree to which data reflects actual technologies (e.g. process design, operating conditions, material types or quality, output over time) used to perform activity or produce good)

Table 18. Amount of purchased and settled carbon offsets

7.2. Data Quality Improvement Plan

Drukarnia Dimograf is committed to improving its data collection methods and sources to reflect emission totals and reductions that are accurate and relevant. Based on this, the organisation is taking ongoing measures to enhance the quality of data by incorporating industry best practices, using the most recent resources, and prioritising the use of primary data. The following demonstrates our actions to reduce data uncertainty and quality issues in the future.

a) **Primary data –** ensure continuous data recording by responsible employees and corroborate it with the respective documents;

b) **Data collection** – regularly submit the collected data to the person responsible for the calculation. This person is responsible for the quality and the accuracy of the data;

c) **Calculation** – endeavour to improve the calculation procedure;

d) **Emissions factors** – regularly improve the emissions factors;

e) **Allocation** – endeavour to limit the extent to which estimations and recalculations are made.

Area of improvement	Action Plan	Effects on results	Status
Scope 2 emission factors	Secure data from utility provider	Eliminate variation in results (see 6.1)	Underway
Scope 1 Heat	Secure data from utility provider	Eliminate variation in results (see 6.1)	Underway
Scope 1 fuel	Monthly review	+/- 1% difference	Scheduled
Scope 3 (Material)	Talk to supplier	Unknown	Scheduled
End of life	Contact local EPR	Eliminate variation in results (see 6.1)	Underway

Table 19. Improvements

	Action Plan	Effect on Carbon footprint results
1	Refinement of emissions factors for individual items of input material	Refinement of calculation of corporate and product CFs
2	Refinement of input data related to specific emission sources	Refinement of calculation of corporate and product CFs

Table 20. Action Plan

Data quality improve

Data quality is improving firstly by the way of collecting and processing data using internal system WebKalk. Our internal system is rebuilding permanently for new information to be able calculate in the future the product carbon footprint for all projects. It will allow access to important information concerning to emission and carbon footprint anytime.

Emission data base for the materials (scope3) is based on the information from producents if available: Paper profiles, Specification cart. In case of missing information the emission is taken from document like Defra or third part organisation.

Data quality used for the Carbon Footprint corporate calculator are used as a base for the others environmental questionnaires for which Drukarnia Dimograf is involved. There are questionnaires of clients and their organisations and other project questionnaires ex: Book Chain Project. This kind of reporting lest us controlled quality data in the other way and share with third part companies.

8. Climate Comunications, claims, and labels

Drukarnia Dimograf communicates the results of its carbon footprint as well as its progress on GHG emissions reductions on an annual basis. The information is available in the CFM plan documents.

Report Description	Name	Content / Purpose
Carbon Management Plan	CFM Plan	Sustainability action, environment protection
Sustainability report	CDP via the client demand	Sustainability action
Report	EcoVadis report	Sustainability action, environment protection
Report	Smeta report	Sustainability action, environment protection
Report	Noumbres of the client's questionnaires	Sustainability action and progress, environmental protection, employees lows

8.1. Claims and Labels

Drukarnia Dimograf uses CFM claims and labels to demonstrate our climate efforts to stakeholders. This document along https://www.dimograf.com/assets/certificates/Drukarnia-Dimograf-Sp-z-o.o.-Corporate-and-Product-CFM-Certificate-26.7.2023-(5).pdf serve as supporting evidence to stakeholders wishing to validate the appropriateness of our claims and label use. In particular, we validate that the information supporting our claims and labels are clearly accessible, do not misrepresent any emissions or results, and appropriately identify the parts of the business or product under investigation; carbon footprint results as well as reductions and offsets achieved; date of verification and approvals.

The uses labels for the product neutral production and information folders are approval by indicated organ od Preffered by Nature Jūratė Žimkienė and by responsible for CF of Dimograf Agnieszka Pawłowicz- Mariat.

The using labels validated June 2023 are present bellow:


Product footprint
CO2
Neutral
PBN-CFMCP-012875
www.preferredbynature.org


Product footprint
Measuring
CO2
PBN-CFMCP-012875
www.preferredbynature.org


Corporate footprint
Reducing
CO2
PBN-CFMCP-012875
www.preferredbynature.org


Product footprint
Measuring
CO2
PBN-CFMCP-012875
www.preferredbynature.org
Footprint 1,2193 kg CO2e per kg of product


Corporate footprint
Reducing
CO2
PBN-CFMCP-012875
www.preferredbynature.org
37.2% CO2e since 2019


Carbon Footprint
Management
by Preferred by Nature