Scope 3 Dominance Analysis 2024

CO2 Performance Ladder

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6 Introduction

To comply to the certification of the CO2 Performance Ladder level 5, version 3.1, it is required to map out the most material emissions of scope 1, 2 and 3 reduce these. In this report, FCC Construcción S.A. (NL) (hereafter FCC) provides a scope 3 dominance analysis for the year 2022. These emissions are identified and quantified according to ISO 14064-1 and 14064-3.

6.1 Requirements CO2PL

The Scope 3 report is established to comply to the following CO2PL requirements:

- 4.A: The organisation reports its CO2 footprint for scope 1, 2 & 3.

4.A.1. The organisation has a demonstrable insight into the most material emissions from scope 3, and can present at least two analyses (one for small organisations) of these scope 3 emissions of GHG-generating (chains of) activities.

- 5.A: The organisation has a portfolio-wide understanding of scope.
    - 5.A.1. The organisation has insight into the material scope 3 emissions of the organisation and the most relevant parties in the value chain that are involved in this.

7 Categories for scope 3 emissions

Table 1 and Figure 1 give an overview of the upstream and downstream scope 3 emissions categories according to CO2PL. As can be seen, in contrast to the GHG protocol Scope 3 Standard, the overview has been adjusted such that Business travel is excluded. This adjustment is in line with the CO2PL, which states that business travel emissions should be accounted for in the emissions inventory and are, therefore, excluded from scope 3.

Upstream	Downstream
1. Purchased goods and services 2. Capital goods 3. Fuel and energy-related activities (not included in *scope 1* or scope 2) 4. Upstream transport and distribution 5. Waste generated in operations 6. Business travel 7. Employee commuting 8. Upstream leased assets	9. Downstream transportation and distribution 10. Processing of sold products 11. Use of sold products 12. End-of-life treatment of sold products 13. Downstream leased assets 14. Franchises 15. Investments

Table 1. Category division upstream and downstream scope 3 emissions in accordance with GHG Protocol Scope 3 Standard (July 2022; p.32; table 5.3)

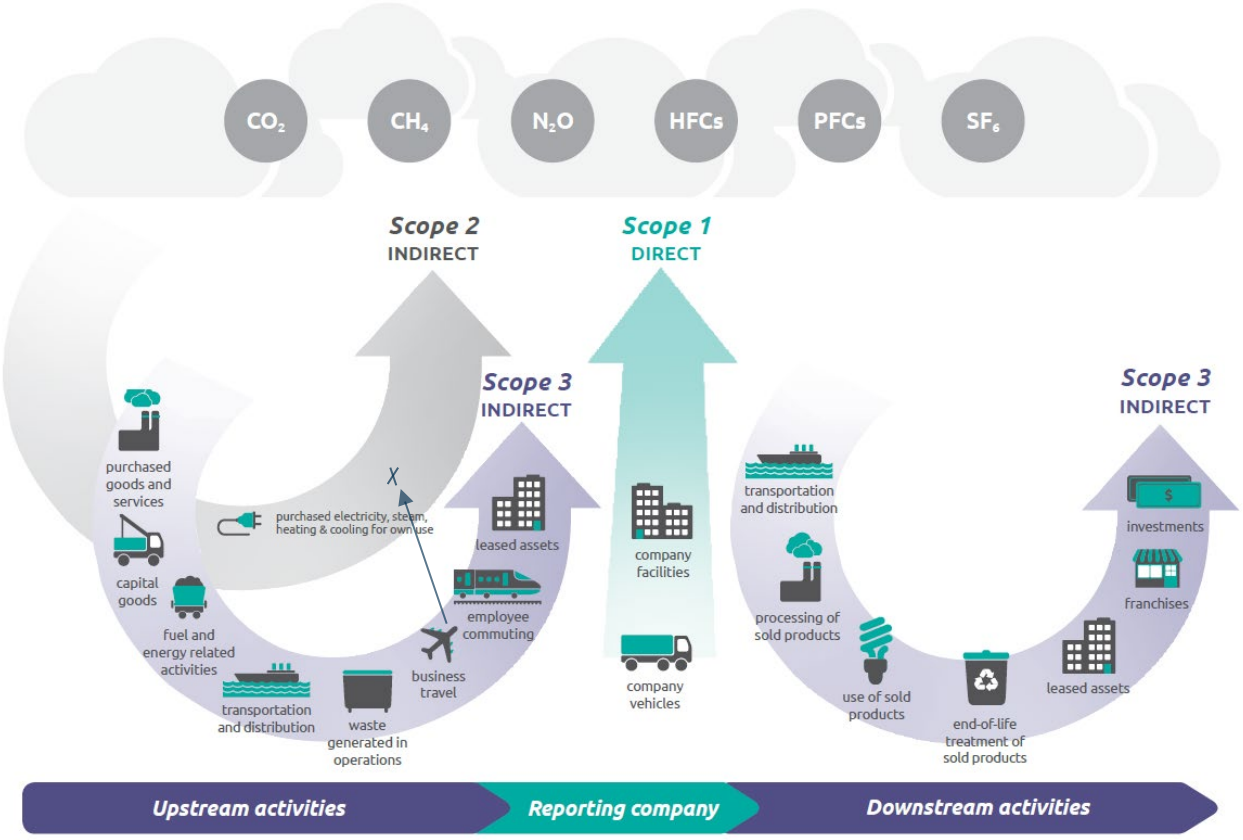

Figure 1. Scope division according to GHG Protocol Scope 3 Standard with addition of business travel adjustment (July 2022; p.5; figure 1.1)

7.1 Upstream categories

Purchased goods and services

All purchases of products and services that are not otherwise included in the other upstream scope 3 emission categories (i.e., categories 2 through category 8) are included in the purchased goods and services category. This category includes:

Emissions from purchased goods and services directly related to the production of the company's products. These emissions are irrelevant to FCC because it is not a manufacturing company.

Emissions from purchased goods and services that are not related to the production of the company's products, but are necessary for the activities of FCC. These are goods and services such as:

- Crushed rubble (site paving or as a foundation for roads and site construction)
- Geotextiles (used in combination with soil, in road construction applications)
- Asphalt
- Steel
- Concrete
  Soil

These emissions are highly relevant to FCC as it makes use of many subcontractors.

Capital goods

Emissions related to capital goods purchases are included in this category. Capital goods are goods used to create a product or provide a service. For FCC, the capital goods involve primarily involve the purchase of office equipment, since the company leases office buildings and vehicles are leased. Therefore, the relevance of this category is rather low.

Fuel and energy-related activities (not included in scope 1 and 2)

This category relates to energy- and fuel emissions that are not already included in scope 1 or 2. Since FCC is an end user of fuel and electricity, the emission that are relevant within this category are upstream emission of purchased fuels and electricity and losses from transmission and distribution of electricity. According to CO_2-Prestatieladder 3.1, well-to-wheel (WTW) emission factors should be used when calculating the emissions from fuel and energy-related activities for scopes 1 and 2. The emissions losses from extraction, production and distribution of fuel and electricity are already accounted for in these two scopes and will, therefore, be excluded from scope 3.

Upstream transport and distribution

This category includes:

A. Emissions related to the transportation and distribution of products purchased by the reporting company in the reporting year, between a company's tier 1 suppliers and its own operations.
B. Emissions related to third-party transportation and distribution services purchased by the reporting company in the reporting year (either directly or through an intermediary).

Construction activities require many transportation movements. Therefore, both types of upstream transport and distribution emissions are relevant to FCC.

Waste generated in operations

This category includes emissions from third-party disposal and treatment of waste that is generated in the reporting company's owned or controlled operations in the reporting year. The construction activities of FCC generate a lot of waste, hence this category is of relevant to FCC.

Business travel

This category includes emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars. For FCC, business travel includes 'company paid for' transportation movements between the Netherlands and Spain. According to CO_2-Prestatieladder 3.1, business travel emissions are accounted for in the emissions inventory, even though based on the ISO 14064 are part of scope 3.

Employee commuting

The category employee commuting primarily consists of emissions associated with employee home-to-work travel by car, bus, rail and air. For FCC, this implies the transportation movements employees make from their residence to the Dutch office in Amsterdam and various construction sites along the A9.

Upstream leased assets

This category includes emissions from the operation of assets that are leased by the reporting company in the reporting year and not already included in the reporting company's scope 1 or 2 inventories. Thus, emissions from the leased assets included in scope 3 are assets over which FCC does not have ownership or financial control. An example of a leased asset is a site office along the A9.

7.2 Downstream categories

Downstream transportation and distribution

This category includes the emissions related to the transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company). This emission category is irrelevant to FCC, given that FCC is a construction company and we expect no sale of surplus product.

Processing of sold products

The emissions related to the processing of intermediate products sold in the reporting year by downstream companies are included in this category. Since FCC is a construction company and we expect no sale of surplus products, these emissions are irrelevant to FCC.

Use of sold products

This category includes emissions associated with the end use of goods and services sold by the reporting company in the reporting year. This emission category is irrelevant because the emissions that will arise during the use phase of the highway extension are out of scope.

End-of-life treatment of sold products

This category includes the emissions from waste disposal and treatment of products sold by the reporting company at the end of their life. This emission category is irrelevant to FCC, given that FCC is a construction company, and we expect no sale of surplus products.

Downstream leased assets

This category includes the emissions associated from operation of assets owned by the reporting company (lessor) and leased to other entities in the reporting year, not included in scope 1 and 2 reported by lessor. Downstream lease assets are relevant to leasing companies and not to FCC.

Franchises

This category includes the emission related to the operation of franchises in the reporting year, not included in scope 1 and 2 as reported by franchisor. Since FCC is not a company that operates under a license to sell or distribute another company's goods or services at a particular location, this emissions category does not apply to FCC.

Investments

This category includes emissions related to the operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scope 1 or 2. This category is particularly interesting to the financial sector and, therefore, not applicable to a construction company like FCC.

8 Qualitative ranking scope 3 emissions 2024

Table 2 displays a qualitative ranking scheme for scope 3 emissions. Each scope 3 category in upstream and downstream is qualitatively scored on the following criteria: size, influence, risk, outsourcing, importance to stakeholders and other. Scoring ranges from 1 (negligible) to 5 (large). The criteria and scoring are adopted from the GHG Protocol Scope 3 Standard and the CO_2-Prestatieladder 3.1. The categories with the highest total score are the most relevant.

Score	Definition
Size	They contribute significantly to the company's total anticipated scope 3 emissions
Influence	There are potential emissions reductions that could be undertaken or influenced by the company
Risk	They contribute to the company's risk exposure (e.g., climate change related risks such as financial, regulatory, supply chain, product and technology, compliance/litigation, reputational and physical risks)
Outsourcing	They are deemed critical by key stakeholders (e.g., customers, suppliers, investors or civil society)
Importance to stakeholders	They are outsourced activities previously performed in-house or activities outsourced by the reporting company that are typically performed in-house by other companies in the reporting company's sector
Other	They meet additional criteria developed by the company or industry sector

Table 2. Method for qualitatively determining the most relevant scope 3 emissions based on the GHG Scope 3 Standard and the CO2PL Handbook 3.0 (p.53, Table 6.1)

8.1 Scope 3 category ranking

Table 3 shows a qualitative dominance analysis for scope 3 emissions. From this analysis, the following categories can be concluded to be important:

- Purchased goods and services
- Transport and distribution upstream
- Waste generated in operations
- Upstream leased assets

It should be emphasized that the scoring is performed in a qualitative, descriptive manner. Therefore, 'hard' conclusions should be avoided, as the categories and criteria of the GHG protocol leave a lot of room for individual interpretation.

Dominance ranking scope 3 categories						
Categories	**Criteria**					
Upstream	Size	Influence	Risk	Outsourcing	Importance for stakeholders	Total points
1. Purchased goods and services	5	2	4	5	4	20
2. Capital goods	1	4	1	1	1	8
3. Fuel and energy-related activities (not in scope 1 or scope 2)	1	1	1	1	1	5
4. Transport and distribution	3	3	2	3	3	14
5. Waste generated in operations	3	3	3	3	2	14
6. Business travel	2	5	2	1	1	11
7. Employee commuting	1	4	1	1	1	8
8. Upstream leased assets	4	4	2	2	3	15

Downstream							
9. Transport and distribution	n/a						
10. Processing of sold products	n/a						
11. Use of sold products	n/a						
12. End-of-life treatment of sold products	n/a						
13. Leased assets	n/a						
14. Franchises	n/a						
15. Investments	n/a						

Table 3. Qualitative ranking of scope 3 categories

8.2 Scope 3 material ranking

Most scope 3 emissions are related to the materials purchased or used in the execution of the project. To gain better insight and understanding of the relevance of materials concerning emission generation, a qualitative analysis is performed similar to the one for the scope 3 categories, shown in Table 4. The six most-used materials are scored using the same criteria provided by the GHG-protocol. The most-used materials are selected in-line with an ECI-calculation of the VeenIx project, which is the only project of FCC.

From this ranking, we can conclude that Concrete and Steel are the most relevant materials concerning emissions. With respect to the size criteria, steel has the most significant contribution to the company's total anticipated scope 3 emissions. For the materials ground, asphalt, concrete and foundation, FCC has a certain degree of control within the supply chain. Therefore, these materials score higher on the influence criteria. As construction activities are outsourced to a high degree, all materials score a 5 on the outsourcing criteria. Lastly, due to the interest from RWS into reusing concrete girders, concrete scores higher on the 'importance for stakeholders criteria' than the other materials.

Dominance ranking material						
Material	**Criteria**					
	Size	Influence	Risk	Outsourcing	Importance for stakeholders	Total points
Concrete	4	4	3	5	4	20
Steel	5	2	5	5	3	20
Ground	4	4	2	5	3	17
Asphalt	2	4	2	5	3	16
Barriers	1	2	3	5	3	14
Foundation	1	4	1	5	3	14

Table 4. Qualitative ranking of scope 3 materials

9 Scope 3 boundary

9.1 Organizational boundary

To conduct a scope 3 analysis, it is necessary to set the boundary of the organization. To do so, a company can opt for the 'GHG Protocol method' or the 'lateral method'. In this report, the lateral method is used, following the detailed step-by-step plan described in CO_2-Prestatieladder 3.1. According to the lateral method, relevant (A-)suppliers must be selected based on consolidated cost of sales data. In the selection, it is important to iteratively exclude corporate suppliers (C-suppliers), which have a controlling relationship within the same corporate group as the supply receiver. The remaining list constitutes solely A-suppliers and no C-suppliers, responsible for at least 80% of, in this case, FCC's purchase turnover.

9.2 List of A-suppliers 2024

For the ladder assessment, we determine the organisational boundary by means of the lateral method. By employing this method, we set the boundary of the organisation by providing a list of A-suppliers that are no C-suppliers. An A-supplier is a supplier who belongs to the largest suppliers of the organisation that together are responsible for at least 80% of the purchase turnover. A C-supplier, or corporate supplier, is a supplier who has a controlling relationship (financial and/or operational control) within the same corporate group as the receiver of the supply. In other words, supplier and receiver are both wholly or partially members of the same corporate group (in terms of power, control, ownership etc.). A boundary analysis conform the lateral method is an iterative procedure and consists of five steps.

In the first step, we arrange all suppliers (creditors) according to cost of sales in decreasing order. As shown in Figure 5, there are 520 suppliers with a total cost of sales of more than €215 million. The largest supplier generates more than €20 million in cost of sales.

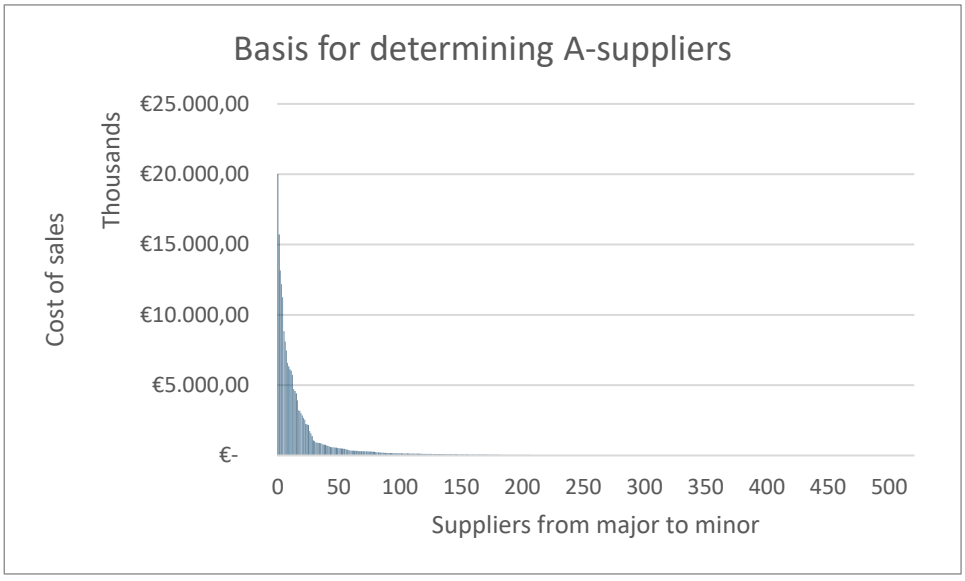

Figure 2. Suppliers from large to small on the basis of cost of sales

In the second step, we express the turnover per supplier in a percentage of the total. As can be seen from Figure 6, supplier 1 provides 9,3% percent of the total cost of sales, supplier two 16,6% and so forth.

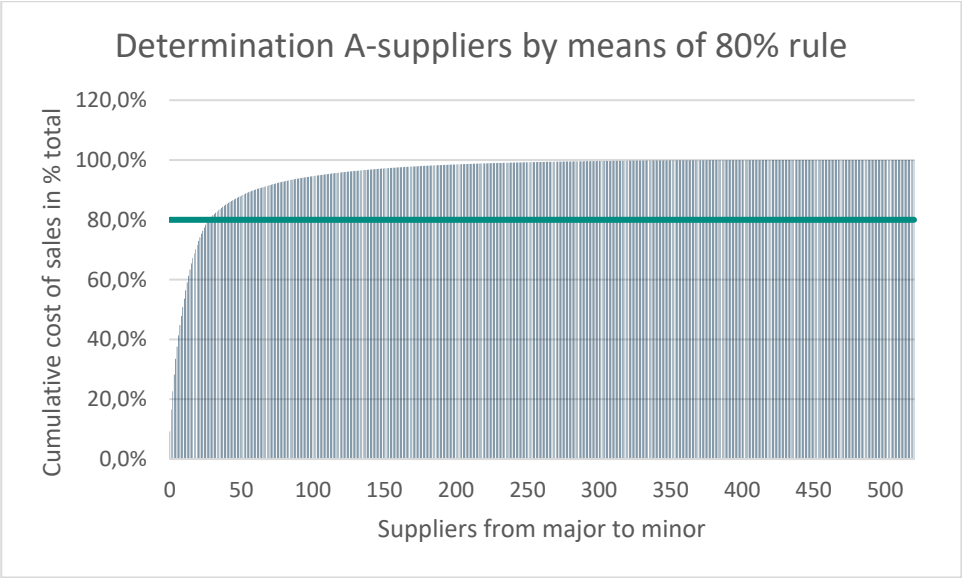

Figure 3. Cumulative cost of sales of suppliers in percentages of the total

In the third step, the list of A-suppliers is determined by including FCC's suppliers until the cumulative cost of sales limit of 80% is exceeded. As can be seen from Figure 7, 28 supplier generate 80,6% of the total cost of sales. The 29th supplier is (for now) not categorised as an A-supplier.

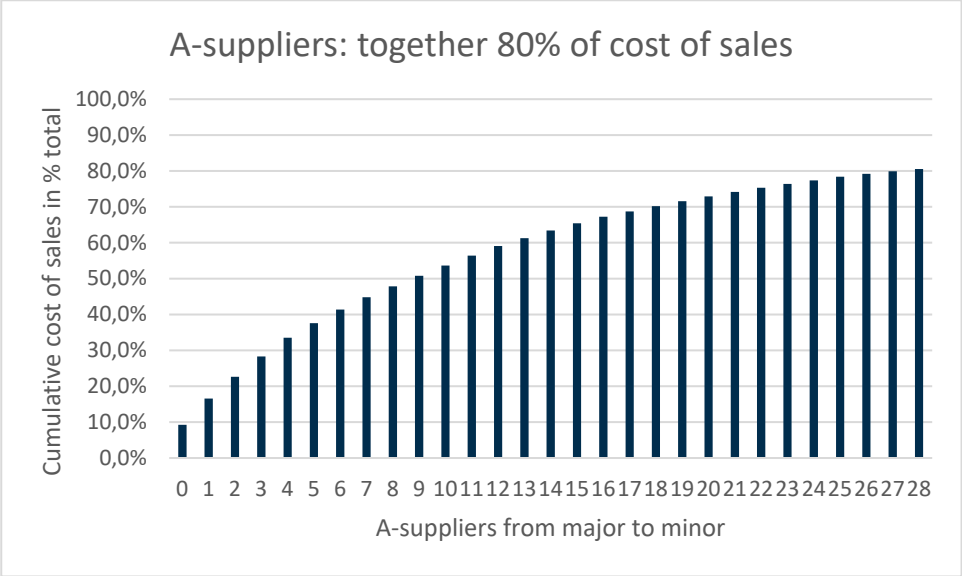

Figure 4. A-suppliers selection based on 80% total cost of sales

In the fourth step, we identify the C-suppliers among the A suppliers and include them in the organisational boundary. This inclusion implies they are no longer identified as an A-supplier.

Lastly, in the fifth step, we repeat steps one to four until the list of A-suppliers does not include any C-suppliers. An iterative procedure is required as the exclusion of an A-supplier who is also a C-supplier, alters the total cost of sales. After several iterations, we arrive at the following list of A-suppliers:

Based on the lateral method, a list of A-suppliers is established covering 80% of FCC's cumulative cost of sales in the year 2024 as shown below. The suppliers are ranked from highest to the lowest cost of sales. A detailed analysis on how the supplier list is established is presented in Appendix A.

	Grand Total	**100,00%**	**Cumulative % of the total**
1	FUNDERINGSCOMBINATIE GEWIX V.O.F.	7,19%	7,2%
2	HEIJMANS INFRA BV	6,79%	14,0%

3	V.O.F. COMBINATIE SPECIALISTISCHE	6,24%	20,2%
4	HAITSMA BETON B.V.	5,98%	26,2%
5	HIGH FIVE SOLUTIONS B.V.	3,25%	29,4%
6	KANDT AANNEMINGS BV	3,10%	32,5%
7	TERRAFIRMA9	2,99%	35,5%
8	HOLLANDIA INFRA BV	2,90%	38,4%
9	KIJLSTRA BETONMORTEL AMSTERDAM B.V.	2,77%	41,2%
10	ANTON CONSTRUCTIEWERKEN B.V.	2,61%	43,8%
11	VAN NOORDENNE STAAL B.V.	2,57%	46,4%
12	VAN WERVEN INFRA BV	2,53%	48,9%
13	VAN SCHAIK GRONDVERZET BV	2,37%	51,3%
14	AMSTEL MAKELAARDIJ	2,35%	53,6%
15	ROMEIN BETON B.V.	2,00%	55,6%
16	JOOSTEN KUNSTOFFEN BEVERWIJK BV	1,88%	57,5%
17	BBN-A9 V.O.F.	1,85%	59,4%
18	HEIDELBERG MATERIALS NL BETON B.V	1,82%	61,2%
19	MNE B.V.	1,45%	62,7%
20	YUNEX TRAFFIC B.V.	1,42%	64,1%
21	SRS BEMIDDELING & DIENSTEN B.V.	1,38%	65,5%
22	JANSON BRIDGING NEDERLAND B.V.	1,36%	66,8%
23	VAN DER JAGT ZUID-HOLLAND B.V.	1,15%	68,0%
24	ORANJEFLEX B.V.	1,11%	69,1%
25	PFEIFER RENTALS BV	1,08%	70,2%
26	CONSTRUGOMES ENGENHARIA S.A.	1,04%	71,2%
27	PERI BENELUX BV NETHERLAND	1,02%	72,2%
28	MARTENS EN VAN OORD	0,85%	73,1%
29	FISCALE EENHEID STERK HEI	0,84%	73,9%
30	JDB GWW BV	0,83%	74,7%
31	SAAN HORIZONTAAL & VERTICAAL	0,81%	75,5%
32	LEK SLOOPWERKEN B.V.	0,79%	76,3%
33	MAURER NETHERLANDS B.V.	0,77%	77,1%
34	DRENTH GROEP B.V.	0,72%	77,8%
35	BOSKALIS NEDERLAND B.V.	0,69%	78,5%
36	GS BIRKHOFF STAALWERKEN B.V.	0,67%	79,2%
37	BOELS VERHUUR B.V.	0,60%	79,8%
38	METHORST PROJECTEN ZUID-WEST B.V.	0,57%	**80,4%**

Most scope 3 emissions can be accounted to suppliers during the execution phase of the construction project, VeenIX BaHo. In 2024, the project finds itself in working on; ***foundations***, including pilling and other advanced techniques like sonic drilling and vibration of ground anchors and micropiles, ***structural activities*** regarding concrete beams and piles, and ***asphalt paving.***

The activities of the five suppliers with the highest cost of sales will be discussed in more detail in the following paragraph.

Funderingscombinatie GEWIX V.O.F.: Specializes in foundation works, including piling and other related activities.

Heijmans Infra BV: Designs, builds, renovates, and maintains public spaces and infrastructure, including roads, hydraulic engineering works, viaducts, tunnels, and bridges.

V.O.F. Combinatie Specialistische: Engages in specialized construction activities, often involving partnerships for complex projects.

Haitsma Beton B.V.: Produces precast concrete elements, barriers, and piles for various construction projects.

High Five Solutions B.V.: Focuses on foundation engineering using patented sonic drilling and vibration techniques for ground anchors, micropiles, and grouting.

10 Quantified scope 3 emissions 2024

This chapter present the scope 3 emissions for 2024 on two different levels. First, the scope 3 emissions are presented on the scope 3 category level as defined in Chapter 2. Second, the scope 3 emissions are discussed on a material level. For both levels, an interpretation of the results will be provided.

10.1 Insight scope 3 emissions on category level

Scope 3 emissions arise from the company's activities, but they are produced by sources that are not owned or controlled by the company FCC. For the categories of relevance to FCC as specified in Chapter 2, the quantified scope 3 emissions are presented in Table 5. As can be seen, the total scope 3 emissions of FCC in 2024 are the following;

Scope 3 emissions 2024 (GHG Protocol & CO2PL)	tCO2e	%
Purchased goods and services	27.067,87	87%
Upstream transportation and distribution	3.789,58	12%
Business travel	221,72	1%
Employee commuting	10,49	0%
Total Scope 3 Emissions	**31.089,66**	**100%**

Table 5. Scope 3 emissions of the year 2024 per GHG protocol category

A visualisation of the distribution of emissions among the scope 3 categories is given in Figure 2. As can be seen, the category of purchased goods and services has the largest contribution to the total scope 3 emissions with 78,47%. The second largest contribution is by the category upstream transportation with 20,27%, followed by the business travels and employee commuting with 1,26%.

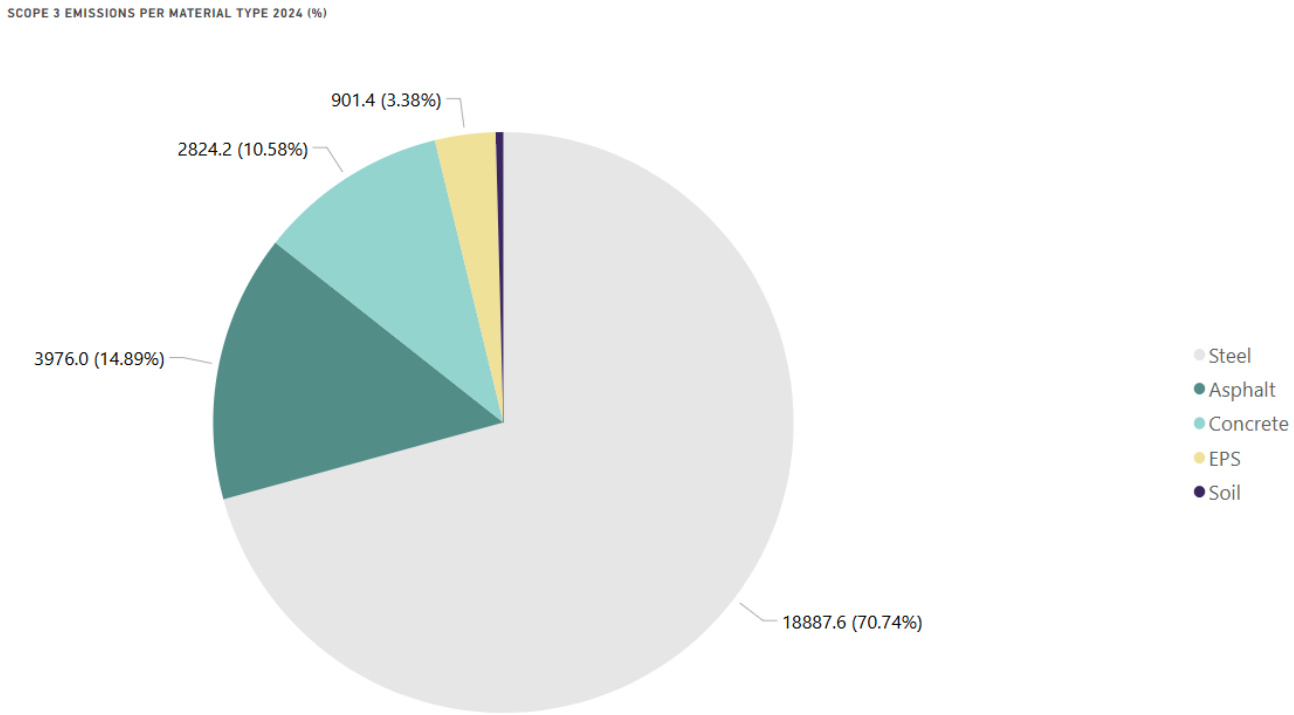

Figure 5. Distribution of scope 3 emissions per GHG protocol category in percentage

More information about emissions can be found on 03. Factsheets.