CO_2-REDUCTION CHAIN ANALYSIS

LOGISTIC HUB
GREEN BUSINESS CLUB ZUIDAS

Client: Accenture
Contact: Silke Lepee

Consultant: Eveline Prop
Company: De Duurzame Adviseurs

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Inhoudsopgave

1 | INTRODUCTION

Accenture Netherlands is a level 5 certified company on the CO_2-Performanceladder. This is a certificate that is mainly used in the Netherlands. The CO_2-Performanceladder is a managementsystem that helps organisations to monitor, evaluate and reduce their CO_2-emissions. In this document you will find the chain analysis of the logistic hub that the Green Business Club on the Zuidas had initiated. The main goal of this analysis is to initiate a chain cooporation and reduce CO_2-emissions that are caused by the transportation of non-food deliverments to Accenture and other companies situated on the Zuidas. The method used complies with the guidelines of the GHG Protocol.

1.1 Accenture

Accenture is one of the world's largest independent providers of technology services. Our Technology professionals lead and implement highly complex technology projects. Working with clients, they design, develop and deliver a wide range of challenging and global IT projects. These professionals may build, test, install and maintain software across a variety of projects and industries working with leading enterprise applications such as SAP, Siebel, PeopleSoft and Oracle or with custom- built applications the field of Analytics, Mobile, Cloud / SaaS and Digital. Accenture NL is mainly focused on strategy, consulting, digital, technology and outsourcing/operations.

1.2 Chain analysis

A life cycle analysis is a way to visualize the whole chain of emissions that are the result of a product or service. Meaning the complete life cycle of that product or service.
The most important goals fort this life cycle analysis are identifying CO_2-reduction possibilities, defining the reduction goal and monitoring progress.

Based on the insight on scope 3 emissions and the life cycle analysis a reduction goal is defined. Within the energy management system, a clear focus is set on reducing scope 3 emissions. Spreading information to partners and other important players, part of a similar chain of activities, is an important part of this goal. Accenture will actively try to involve their most important partners within the sector in achieving its reduction goals.

1.3 CSR Statement

Accenture is ambitous and pro-active when it comes to corporate social responsability. They are very active taking the lead role and initiating new ways to reduce emissions that are caused by their own operations, suppliers and other parties involved. This is a global policy and strategy of Accenture.

2 | SCOPE

2.1 Product Market Combinations

The ladder requires choosing a topic that has to do with the most material emissions. This concerns relevant emissions in the context of scope 3 for which criteria have been indicated in the GHG Protocol Scope 3 Standard. These are the following criteria:

- The scope the emissions
- Influence of the company on the emissions
- Risks for the company
- Emissions of critical importance for stakeholders
- Outsources emissions
- Emissions identified by the sector as significant /relevant and others

Therefore Accenture has stated in the excel document 'Qualitative scope 3 analysis' what the most relevant PMC's are. Out of these combinations we selected the top two as a guidance for choosing the topic of the chain analysis.

The top two PMC's for Accenture are:

1. **Strategy & Consulting – Private Parties**
2. Interactive – Private Parties

Next to this Accenture has a couple significant scope 3 emissions:

1. **Suppliers**
2. Transport
3. Waste
4. Employee Commuting

For this chain analysis we chose a subject that is also relevant when it comes to consulting clients, suppliers and other companies to reduce CO2 emissions. Every client has to do with logistic transport and deliveries. Accenture wants to lead by example and therefore this subject can make a great impact in the whole chain.

We have taken into account that there are already a couple of initiatives that Accenture initiated when it comes to these PMC's and scope 3 emissions. Therefore we chose the Project from the Green Business Club on the Zuidas. This is a pilot / project whereas Accenture is looking to reduce the emissions that come with the transportation of non-food goods.

2.2 Primary & secundary data

In this chain analysis the used data was supplied by mutiple organisations as shown in the table below.

	Verdeling Primaire en Secundaire data
Primair data	- Hulshoff reports - http://greenbusinessclub.nl/zuidas/
Secundair data	- www.co2emmissiefactoren.nl

2.3 Allocatie data

There is no data that has been allocated in this analysis.

3 | Logistic hub

Zuidas – literally, the "southern axis" – is a metropolitan area situated roughly midway between the Amsterdam city centre and Schiphol Airport and nature reserves Nieuwe Meer en Amstel. With its high concentration of businesses, public institutions and housing, this is a dynamic new part of the Dutch capital. Already a high-profile international business district and a centre of research and education, Zuidas is now evolving into a fully-fledged urban hub – a place to live, work and play.

Figure 1: Accenture office - ITO tower Zuidas

3.1 Transport Hub Zuidas

In 2019, the Green Business Club started a logistic pilot to reduce traffic from logistic suppliers at the Zuidas. The main goal is to reduce CO_2 emissions, exhaust gasses and traffic caused by logistic companies delivering supplies to Zuidas business by 2025 to zero.

The participants of the Green Business Club (furtheron abbreviated as GBC) Zuidas have called upon their suppliers of Office and sanitary supllies, to start delivering just outside of the ring of Amsterdam.

This initiative is a cooperation between key parties such as logistic service providers, transport companies and business situated on the Zuidas. The role of the GBC is to inspire and challenge the chain parties to contribute to a smarter, more transparent and more efficient logistic process. This will help to realise the ambition of reducing emissions and hopefully help initiate other green

initiatives on the Zuidas and elsewhere in Holland.

3.2 What is a transport hub?

A transport hub (also transport interchange) is a place where cargo is exchanged between vehicles or a different kind of transport mode. This hub is usually situated outside of a city centre, to lower emissions and traffic. In this case the transport hub is situated just next to the A5 in Amsterdam Noord.

3.3 Main Goal

This chain analysis has been made to calculate the emissions before the transport hub was introduced and show how much impact reducing transport movements has on CO_2 emissions for Accenture and the rest of the Green Business Club.

3.4 Chain parties

The emphasis in this analysis lies on the cooperation between involved parties. Only with the cooperation of all these parties the goal can be achieved. The following parties are involved:

- Green Business Club
  - Engie
  - Accenture
  - APG
  - Arcadis
  - CBRE
  - D&B The Facility Group
  - Heyday Facility Management
  - ISS Facility Services
  - Page Group
  - WTC Amsterdam
- Distributer: Hulshoff B.V.
- Suppliers
- Accenture's employees

The pilot is part off the ***Green Deal Zes*** which was signed by most of these business to contribute to almost zero emissions in 2025 in Amsterdam.

3.5 Hulshoff

Hulshoff is the main distributer for the Zuidas and the distributor the GBC chose to collaborate with. The are known for their progressive and ambitious CSR policy. For example, they only use EURO 6 or electric trucks for supplying clients in the center of Amsterdam. Their warehouse, situated next to the A5 in Amsterdam Noord, has zero emissions and is used as a transport hub for other distributors.

3.6 ISS Facility Services

This party or also main supplier of Accenture is the key party in this analysis. ISS provides all services for Accenture like; cleaning, catering, surveillance and logistics. Accenture pays an annual fee for these services and stimulates them to become more sustainable and to lead by example.

4 | Quantifying emissions

Accenture has many deliveries on a workday. In this chain analysis a comparison is made between the previous situation, whereas logistic suppliers had no collaboration in deliveries to Zuidas clients and the ideal situation, whereas logistic movements are minimalized and have zero emissions in 2025.

4.1 Non-Food deliveries

The main goal of this collaboration and chain analysis is to have more insights on the actual deliveries by different suppliers and to set goals, together with Hulshoff and the Zuidas companies.

In the past, suppliers delivered by demand. This means that different suppliers made separate deliveries throughout the day. The companies is the GBC, ISS and Hulshoff made a service level agreement about delivery terms. So that expectations are managed from the start and that the level of quality and delivery time could be met.

In the overview below you can see how many suppliers made deliveries in the period September 2019 till March 2020. Concerning only the non-food deliveries.

Accenture	aug-19	sep-19	okt-19	nov-19	dec-19	jan-20	feb-20	mrt-20
Average deliveries per week	0	4	3	2,5	2,5	1,5	2,25	1,25
Number of deliveries	0	6	12	10	10	6	9	5
Number of suppliers	0	8	15	12	1	6	9	5

It varies per month how many suppliers deliver to Accenture. By combining these deliveries a significant reduction can be made.

4.2 Mode of transportation

There is little to a few information about de use of transportation by the different logistic suppliers. The city of Amsterdam allows only EURO 4 into the environmental zone. The Zuidas is situated in such a zone. By eliminating a large part of the suppliers, by first delivering to the transport hub, emissions can be reduced for the largest part. For the remaining deliveries Hulshoff will only make use of electric transportation. The truck are charged with 100% dutch solar power. This means that the remaining deliveries are free of emissions.

4.3 Emissions

For this pilot only the data for all of the participants are available. In the future data will be made available for every participant. In the table below the emissions and reduction was calculated for the time the pilot lasted.

	Period of 8 months									
Zuidas	**aug-19**	**sep-19**	**okt-19**	**nov-19**	**dec-19**	**jan-20**	**feb-20**	**mrt-20**		
Number of shipments Hulshoff (pilot)	14	20	23	21	20	20	20	22		
Total kilometers*	420	600	690	630	600	600	600	660	4800	km
									0	Emissionfactor electric transportation
									0,0	ton CO2
Number of shipments (old situation)	23	57	80	89	71	95	114	77		
Total kilometers*	690	1710	2400	2670	2130	2850	3420	2310	18180	km
									259	Emissionfactor transportation
									4,7	ton Co2
Avoided shipments	**9**	**37**	**57**	**68**	**51**	**75**	**94**	**55**		
Reduced kilometers	**270**	**1110**	**1710**	**2040**	**1530**	**2250**	**2820**	**1650**	**13380**	**totaal**
							CO2 reduced		**4,7**	**ton CO2**

** Uitgaan van gemiddeld aantal kilometer per levering per supplier*
Gemiddeld aantal kilometer bespaard retour = 30 km
Emissiefactor goederenvervoer (gemiddelde grote) - www.co2emissiefactoren.nl

4.4 Possible reduction

When we translate these figures to alle transportation and deliveries on the Zuidas we can concluded that, when using 100% electric vehicles, zero emissions should be possible.

5 | Reduction goal and measures

The goal of this chain analysis is to persevere other companies and cities to participate in this initiative. We strongly believe that transport hubs will become common in the nearby future. The way we organise deliveries and transportation is not only bad for the environment, as it is inefficient and causes traffic within cities. Together with ISS and the Green Business Club, Accenture wants to lead by example. Showing others how transportation within cities can be organised, by working together. Making sure that the needs of every partner are met, monitoring the results and making use of each other strengths.

5.1 From pilot to contract

At the time we started to write this analysis, may 2020, the project with Hulshoff was still a pilot. Accenture had not decided if they wanted to continue in the future. But after monitoring the results closely, Accenture en ISS concluded that they want to continue with the new way of delivering. In august 2020 Accenture signed the contract.

5.2 Reduction goal

The main reduction goal is to have zero emissions on the Zuidas in 2025. Accenture is one of the leading companies in this chain initiative. For this analysis we are aiming at zero emissions for all transport and deliveries made to Accenture in 2025 compared to 2020.

Next to that they are aiming at introducing this initiative to other regions / cities in Holland.

Expected forecast for reaching the reduction goal:

2020:	0%
2021:	10%
2022:	20%
2023:	50%
2024:	75%
2025:	100%

5.3 Reduction measures

To achieve this reduction goal we set out the following measures:

- Researching which other deliveries are made on yearly base to Accenture (2021/2022)
- Researching if it’s possible to expand the contract to other Accenture locations (2021/2022)
- Expanding the contract to Food & Beverage deliveries (2022)
- Expanding the pilot to other suppliers and other companies in the centre of Amsterdam (2023)

6 | Source of data

Bron / Document	Kenmerk
Handboek CO_2-prestatieladder 3.0, 10 juni 2015	*Stichting Klimaatvriendelijk Aanbesteden & Ondernemen*
Corporate Accounting & Reporting standard	*GHG-protocol, 2004*
Corporate Value Chain (Scope 3) Accounting and Reporting Standard	*GHG-protocol, 2010a*
Product Accounting & Reporting Standard	*GHG-protocol, 2010b*
Nederlandse norm Environmental management – Life Cycle assessment – Requirements and guidelines	*NEN-EN-ISO 14044*
www.ecoinvent.org	*Ecoinvent v2*
www.bamco2desk.nl	*BAM PPC-tool*
www.milieudatabase.nl	*Nationale Milieudatabase*
http://edepot.wur.nl/160737	Alterra-rapport 2064

De opbouw van dit document is gebaseerd op de Corporate Value Chain (Scope 3) Standaard. Daarnaast is, waar nodig, de methodiek van de Product Accounting & Reporting Standard aangehouden (zie de onderstaande tabel).

Corporate Value Chain (Scope 3) Standard	Product Accounting & Reporting Standard	Ketenanalyse:
H3. Business goals & Inventory design	*H3. Business Goals*	*Hoofdstuk 1*
H4. Overview of Scope 3 emissions	*-*	*Hoofdstuk 2*
H5. Setting the Boundary	*H7. Boundary Setting*	*Hoofdstuk 3*
H6. Collecting Data	*H9. Collecting Data & Assessing Data Quality*	*Hoofdstuk 4*
H7. Allocating Emissions	*H8. Allocation*	*Hoofdstuk 2*
H8. Accounting for Supplier Emissions	*-*	*Onderdeel van implementatie van CO_2-Prestatieladder niveau 5*
H9. Setting a reduction target	*-*	*Hoofdstuk 5*

7 | Declaration of intent

De Duurzame Adviseurs have ample experience with contracting Life cycle analysis, making them a Knowledge institute. We would like to refer to the Declaration of Expertise.

This life cycle analyses is composed by Eveline Prop. To ensure the accuracy and the quality of the work it has been checked Lars Dijkstra. Lars Dijkstra has a controlling role with the portfolio of Accenture and has an unbiased view on the documents.

Signed:

	
Lars Dijkstra *Consultant*	**Eveline Prop** *Consultant*

de duurzame adviseurs

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7.1 Bescherming intellectueel eigendom

Auteur(s):	Eveline Prop
Kenmerk:	Chain Analysis – Transport Hub
Datum:	September 2020
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Verantwoordelijke manager:	R.A. Groeneveld

Signature authorising manager: