Chain initiatives

Research into initiatives and description of active participation in VeenIX A9 BAHO initiative

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VEENIX EPCM

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1 Introduction

Reducing CO_2 emissions goes further than just our own business operations. Together with our sector, we want to implement further CO_2 reduction measures. VeenIX A9 BAHO would like to make an active contribution to this by actively participating in such sector- and chain initiatives.
VeenIX A9 BAHO is happy to share its knowledge with third parties, but is also open to learn lessons from other parties. A sector or chain initiative fits in well with this ambition. In this document we describe the initiatives in which we participate. This can be an initiative of another party with an innovative CO_2 reduction project, but we could also consider starting our own initiative.

2 Plan/research

The first step towards active participation within the sector is the Plan phase. In this phase, our dominance analysis and the sector and chain initiatives are analysed. From this, an initiative is chosen, after which actions are determined for the coming period.

This chapter demonstrates that FCC Construcción S.A. (NL) is aware of the various sectors and chain initiatives in the field of CO_2 reduction that are largely related to FCC Construcción S.A. (NL) project portfolio.

2.1 Reflection on Scope 3 dominance analysis

Information in Section 2.1 is directly extracted from 'A9BH-PW-0000-PC-SU-RP Scope 3 Dominance Analysis'. The two pie charts in the figure below, clearly depict where the CO_2 emissions (left) and the mass (right) are located, subdivided into the project's different material categories.

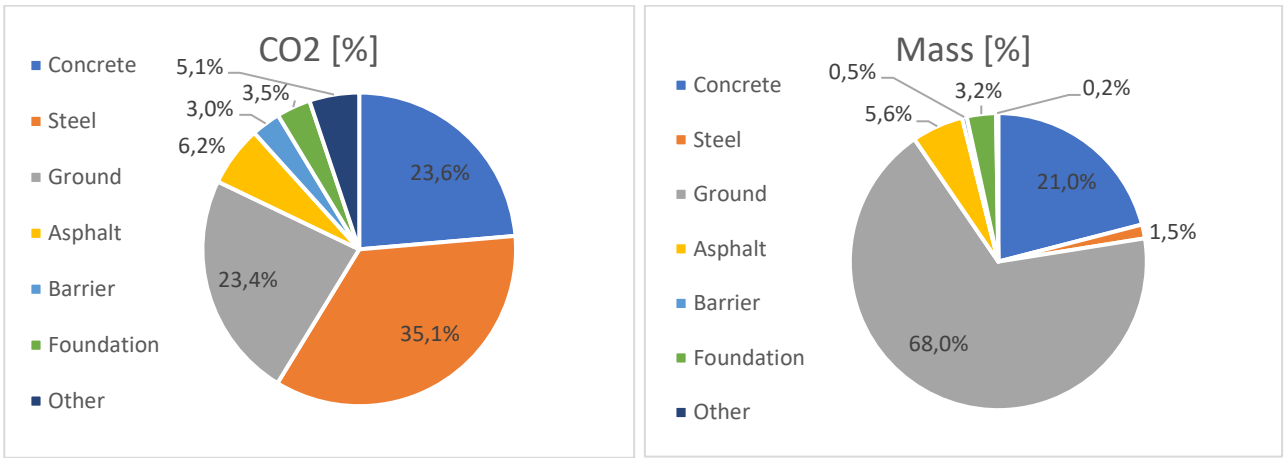

Figure: Percentage of CO_2 contribution related to the materials used in the project.

From the left pie chart, it can be observed that the largest contribution to CO_2 emissions are located in material categories steel (orange), concrete (blue) and soil/ground (Grey). Combined, these three categories account for 82.1% of the total emissions. The right pie chart clearly shows that the majority of mass [%] is related to the movement of soil. The relation between CO_2 emissions and mass is important considering the amount of impact that we are still able to make at this stage of the project.

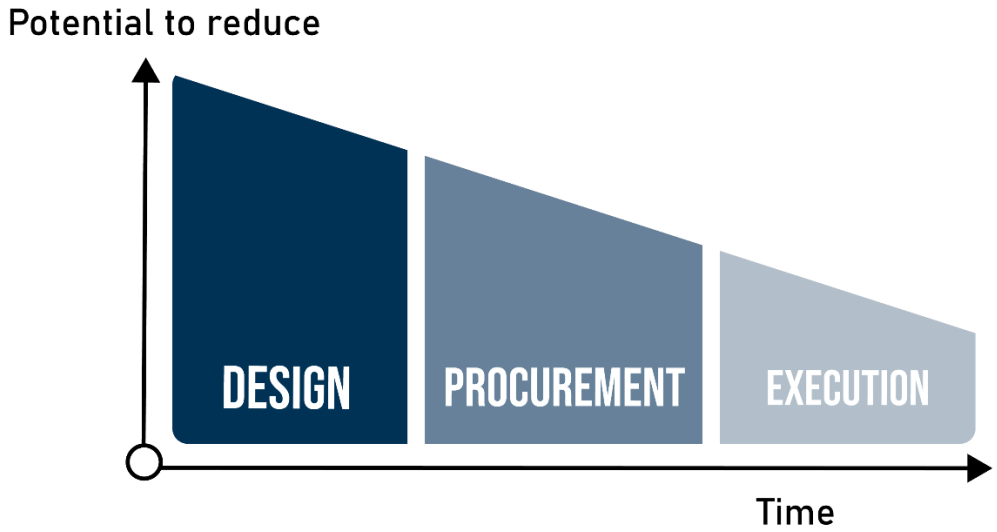

Figure: Schematic reduction potential over time

At the point of writing, the DO is already finalized. This means that our potential to reduce in the design phase has largely passed. Our influence to achieve the reduction objectives is therefore mainly focussed on the latter two stages. Considering that 1) we wish to select our initiative in parallel to the reduction measures and 2) the most initiatives focus on the execution, rather than the procurement phase, we will focus on an execution related initiatives.

Next, we know that the majority of emissions from the execution phase are related to transport and installation of materials. Mass transport during execution is largely related to the movement of soil. Therefore, the remaining of this report we focus on the selection and implementation of soil movement related initiatives.

2.2 Research to existing initiatives

To gain insight into existing transportation related initiatives, we have consulted websites of level 3 or higher certified industry peers. Here we have looked at the different initiatives that our industry peers are working on.

The following relevant initiatives have emerged from the research:

Organisation – Initiative name	Description	CO2 Reduction	Costs
Cumela – Sturen op CO_2	Cumela Netherlands organizes "steering on CO_2": two meetings a year where the participants exchange extensive information with each other, receive study material on CO_2 reduction and have free access to a special telephone consultation on the theme.	4% of transport related emissions	€520,- per year
Nederland CO_2 neutraal	A network of companies working on CO_2 reduction. You will be assigned to a workgroup with a workgroup supervisor and together you will work on reducing your CO_2 emissions.	"With active participation you are guaranteed to meet the two requirements of the CO_2 Performance Ladder." Achievable reduction is variable.	€1247,- per year
Novem (Nederlandse Onderneming voor Energie en Milieu) – Het Nieuwe Rijden met ECOdrive	Het Nieuwe Rijden program encourages motorists, business drivers, professional drivers and fleet managers to adopt a more energy-efficient driving and travel behavior by smarter driving and travelling.	"As a fleet owner, this guarantees environmentally conscious driving behavior and it is possible to achieve an average fuel saving and CO2 reduction of up to 15%."	No response
Verkeersveiligheidgroep Nederland – E-driver	E-Driver offers programs that activate and guarantee safe and sustainable driving behaviour. This way you achieve lower CO_2 emissions.	4.5% CO_2 emissions.	€50,- per person per year
BMWT en Natuur & Milieu – Greendeal 'Het Nieuwe Draaien'	Het Nieuwe Draaien is an initiative to reduce fuel consumption and thus reduce CO_2 emissions.	"We know that companies that get started with The New Turning realize an average fuel saving of 8 to 10 percent."	No response
Band op Spanning	Band op Spanning is working on concrete and direct solutions for a better climate, cleaner air and safer traffic. They offer Service on Location and the installation of fixed Smart Tire Pumps. They also collect information about and about the effects of tire pressure, and about information about improvements.	Properly inflated tires can prevent up to 2 - 5% of CO_2 emissions annually. Measure only counts up to CO_2PL level 3	Not able to determine at this stage
Neste MY Renewable Diesel – Future fuels	The Neste MY Renewable Diesel partnership for the Netherlands. Neste MY Renewable Diesel is the best and the most sustainable diesel fuel worldwide.	98% of transport related CO_2 emissions	29% increase in fuel expenses

2.3 Selected initiative – E-driver

E-Driver offers programs that activate and guarantee safe and sustainable driving behaviour. This way you achieve lower CO_2 emissions. e-Driver programmes are accessible, effective, require minimal time investment and have a proven track record: organisations reap the benefits immediately. Due to the popularity of the initiative it is very likely that the VeenIX A9 BAHO subcontractors are already taken part in this initiative. If so, this is expected to drastically decrease the need for resources from VeenIX A9 BAHO's perspective.

e-Driver is an evidence-based method that stimulates commercial vehicle drivers to drive safely with reduced CO_2 emissions. Work hours lost due to training are minimal, and thanks to the low investment, the programme is very cost-effective. TÜV Rheinland has demonstrated the effectiveness of e-Driver.

E-driver is able to impact drivers, team leads and management:

- Drivers: Training programme for safe and professional driving. Personal driving coach: a new interactive online training video every six weeks. Gamification makes learning fun and effective.
- Team leads: Periodic reports that allow team leads to easily track status and progress, including support in encouraging employees to drive more safely and professionally.
- Management: Programme to kick-start and embed safe and professional driving in the workplace. Our process manager oversees successful implementation and progress.

Benefits:

- Keeps employees safe on the road
- Reduced CO_2 emissions of 8,7%
- Maximised fleet insurability
- Increased fleet sustainability
- Improved vehicle range

Reporting: E-Driver monthly reports provide insight into each employee's progress, which is especially useful for organisations that work with ISO or safety protocols. Meanwhile, employees can see how many training sessions they are still required to do and the dates for completion.

Costs: €50,- per participant per year

Website: https://edriverprogram.com/en/programmes/for-commercial-vehicle-drivers/

2.4 Rijkswaterstaat re-use beams VeenIX A9 BAHO initiative

In 2020, SBIR (Strategic Business Innovation Research) Circular Viaducts commissioned by Rijkswaterstaat began a feasibility study of reuse concepts in infra. VeenIX A9 BAHO has been involved in this project since 2022. FCC Construcción S.A. (NL) is working together with SBIR, Rijkswaterstaat and the province of North Holland to reuse part of the beams of the overpasses that will be released during the expansion of the highway. This kind of project is happening for the first time within the government and it is an important step towards a circular infrastructure sector. In addition, knowledge is being accumulated to develop reuse into an economically attractive alternative. In this way, more components in the infra sector can be used circularly in the future.

A total of approximately 1,300 beams will be removed from the overpasses in the VeenIX A9 BAHO project. Currently the first beams are being harvested by SBIR. VeenIX owns these beams. In consultation with the province of North Holland and Rijkswaterstaat, 32 of these beams will be reused to build a new bridge deck in the N201 at Kortenhoef. For the remaining beams a destination have yet to be found. VeenIX A9 BAHO has expressed its intention to also harvest the remaining girders from the A9 as much as possible.

Liggers viaducten A9 krijgen tweede leven; N201 | Rijkswaterstaat
Liggers viaducten A9 krijgen tweede leven in N201 - Provincie Noord-Holland
Liggers viaducten A9 krijgen tweede leven in N201 - Provincie Noord-Holland
Hergebruik liggers A9 (cementonline.nl)

3 Do

The second step towards active participation within the sector is the Do phase. In this phase, the initiative in which FCC Construcción S.A. (NL) will participate is elaborated on and actions are formulated.

3.1 Relevant requirements from the CO_2 performance ladder

The approach D "Participation in initiatives" must meet the requirements in accordance with Level 3 on the CO_2 performance ladder 3.0. An associated requirement is requirement 3.D.1 "active participation in at least one sector or chain initiative in the field of CO_2 reduction". To demonstrate this, there must be active participation through demonstrable participation in working groups, promoting the initiative to the public and/or supplying information to the initiative.

3.1.1 Participation working group

[Text]

3.1.2 Publicly propagated

[Text]

3.1.3 Provide information

[Text]

3.2 E-driver

Information is expected soon

3.2.1 Background information

3.2.2 Purpose of the initiative

3.2.3 Motivation to participate

3.2.4 Role and responsibilities VeenIX A9 BAHO

3.2.5 Budget

@Budget request is pending at higher management

3.3 Re-use beams A9

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3.4 Planning E-driver

A new initiatives plan is drawn up every year, which indicates when, by whom and what actions with the target groups will take place.

Actions	Frequency	Start date	Responsible person/Role	In Relatics

3.5 Planning Re-use beams A9

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4 Check

The third step towards active participation within the sector is the Check phase. In this phase, we check whether the expected goal has been achieved. Why there are deviations in the expected result, and whether other measures are necessary to achieve the desired result.

4.1 Report on initiative progress

[Text how, when, how often]

4.2 Goals achieved

[Text what goals achieved, if not, when expect to present]

4.3 Ambition after initiative is completed

[Text]

5 Act

The fourth step towards using energy efficiently is the Act phase. In this phase, we look back at the results achieved. Mistakes are signalled and reported back to the people involved.

5.1 Monitoring and evaluation

In the planning, progress is periodically monitored on the basis of measuring points and adjusted if necessary. The deployment of resources is evaluated annually (November). The planning for the following year is made on the basis of this evaluation.

5.2 Deviations

From the annual meeting, where the initiative's progress and status are discussed, an "annual review" document is written with the information discussed. This document states what measures have been taken and what results have been achieved.

Deviations from the planning are communicated and evaluated with the persons concerned.

6 Implementation of Initiative

The process by which the sector initiative is implemented into the organization is described in the CO_2 Implementation Plan. The CO_2 board is responsible for the timely implementation of the initiative, as described in the SMP CO_2.