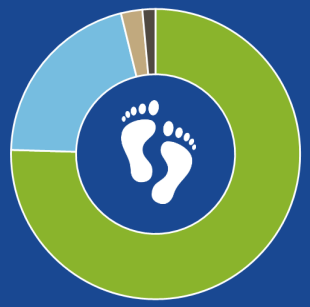
SUSTAINABILITY
at the RIJNLANDROUTE



The 2018 Q3 footprint consists of:

75% ground work

21% Civil construction

2% personal travel and

<2% energy consumption

The total emissions in 2018 Q3 were **5.095** ton CO_2

This is the same amount as the **yearly** usage of **237** Dutch households, or flying back and forth to New York almost **6.000** times!

GOAL

To reduce our CO_2 footprint, we have set ourselves the following goals:

Reducing the emissions of the entire project (realisation phase) with **23%***

Reducing the emissions during the exploitation phase with **50%***

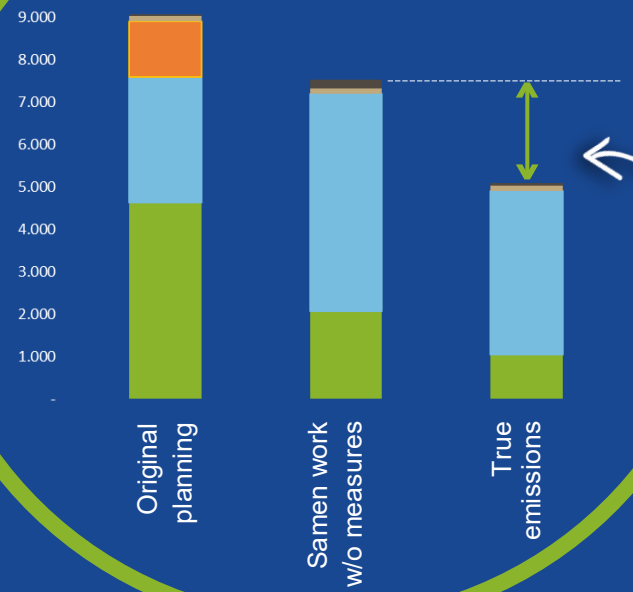
*Both these goals compare the true emissions with the planning without reduction measures.

As you can see, the true emissions are a lot lower than the planning. This is caused by two reasons:

1. activities differ from what was planned in DuboCalc
2. reduction measures.

To make a true comparison, we also included the potential emissions if we'd have done the same work without reduction measures.

CO_2 footprint 2018 Q3



In 2018 Q3, the reduction is **32%** due to the reduction measures! For the whole project until Q3, we have reduced 23%. So keep going and reduce where you can!

Read more about our initiatives and reduction measures on the next page.

According to the original planning without reduction measures, the project would emit more than 190.000 ton CO_2, that is the same as 8.850 households will use in that same period.

Let's talk about CO_2!

Do you have any questions, ideas or comments, let us know via duurzaamheid @mobilis.nl

SUSTAINABILITY
at the RIJNLANDROUTE

Solar Optic Fibre

Around 50% of the electricity use of a tunnel, comes from the entrance lighting. This is caused by the bright light which needs to accommodate the eyes of the drivers coming from daylight. To reduce this, COMOL5 introduces the Solar Optic Fibre, which uses daylight from above the tunnel and transports it to the driveway through an optical fibre. This way, almost **25%** less electricity is needed for the entire tunnel!
De RijnlandRoute is the first project in which this technique is used for a tunnel.

CO_2 reducing fuel

experiment with KW3 and GoodFuels

Less CO_2 while using the same amount of fuel, that sounds like the dream. But no longer is it only a fantasy: COMOL5 has done an experiment on two hey cranes to test the innovative **HVO** (hydrotreated vegetable oil, or biodiesel). The results of this test has shown that the new diesel will lead to a CO_2 reduction of nearly **18%**! This means using the fuel still produces CO_2, but the effect is a lot less than conventional diesel.
A big step for the project!

Let's talk about CO_2!
Do you have any questions, ideas or comments, let us know via duurzaamheid@mobilis.nl

Reduction measures

COMOL5 has planned and executed many CO_2 reduction measures already. Two innovative ones can be found in separate boxes, a short overview of the others is given below. For more information, send us a message.

- Use of **electric generators** where possible
- Hotel accommodation when travel distance is too far
- Using more sustainable **cement** with less CEMI
- Using more sustainable **asphalt**
- Reusing sheet piling
- **100% green electricity** (from Dutch wind)
- Using more sustainable noise barriers
- Using prefab in locations where it's beneficial to reduce transportation of people and specific testing materials

Communication

COMOL5 wants to inform all parties better about the CO_2 policy. For that reason, we will improve this with lunch meetings and personal meetings throughout the organisation. Furthermore, the quarterly reports will be published sooner. These reports will also be published on the website.