



ROADIS: A Global Asset Manager

1,887 km of highways managed in 5 countries

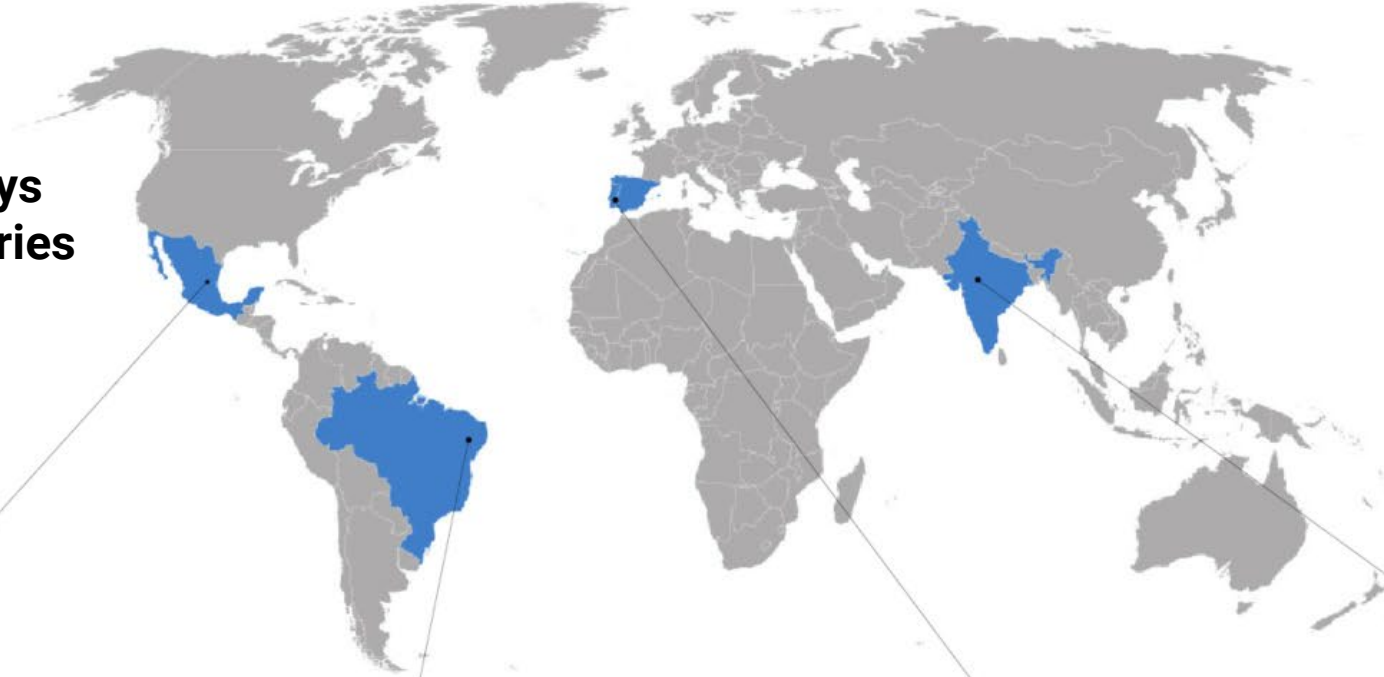
Mexico:
CAMS
COPEXA

Brazil:
VIABAHIA

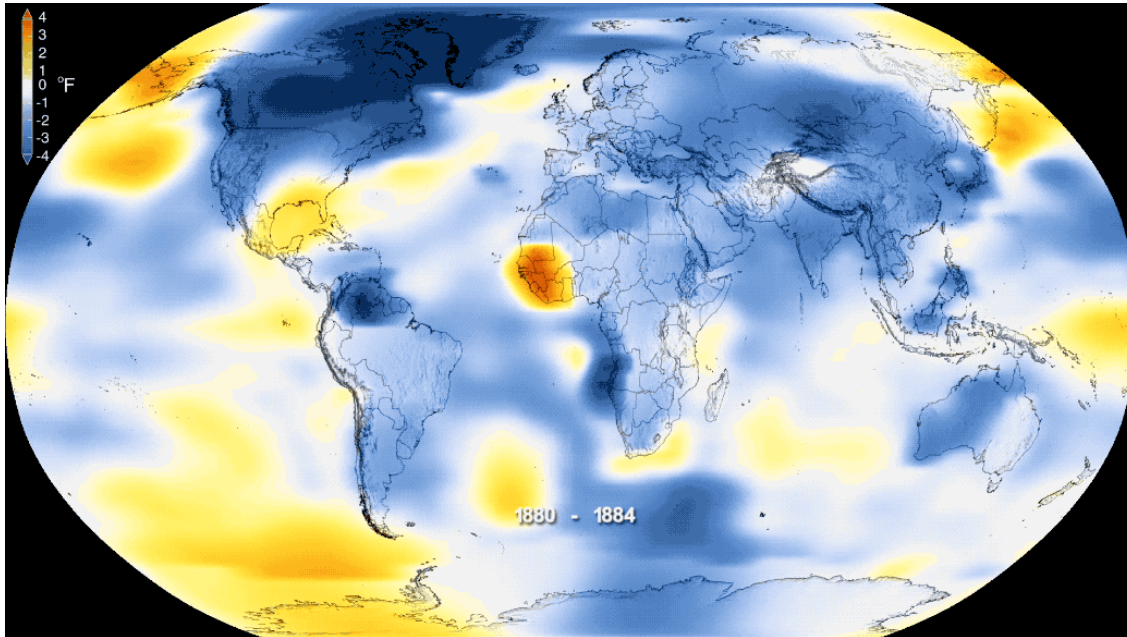
Portugal:
AEA
AELO

Spain:
A-4

India:
NH-1
NH-2
NH-6
NH-8



Climate change refers to long-term shifts in temperatures and weather patterns. In the last decades, this change has been mostly driven by human activities.



<https://climate.nasa.gov/news/2876/new-studies-increase-confidence-in-nasas-measure-of-earths-temperature/>

Due to the **acceleration of climate change in recent decades**, climate disasters have been exacerbated, such as:



Droughts



Floods



Extreme temperatures



Storms

The increased frequency and severity of extreme weather events makes us increasingly vulnerable to catastrophes.

Transportation infrastructure's impact on climate change

The **increase of greenhouse gases in the atmosphere** has become a problem as they **contribute to climate change** through irregular temperature increases.

Transportation infrastructure is responsible for 16% GHG emissions.

Emissions generate at **various stages of the infrastructure life cycle:**

- Generation of infrastructure construction materials;
- Transportation of materials and workers to construction sites
- Operation of the assets; and
- Use of equipment required for its maintenance and eventual dismantling.



Great efforts are being made from the different governments and institutions across the globe in line with the goals of the Paris Agreement to achieve Net-Zero emissions by 2050.



Get to Net-Zero Emissions



<https://www.un.org/tr/file/101625>

Toll operators play a decisive role in the decarbonization of the road infrastructure.

Reducing the Company's carbon footprint is important as it contributes to mitigating the effects of climate change and ensures business continuity in the long term.

Developing a GHG Reduction Plan is the first step towards the decarbonization of infrastructure.

Steps to be taken when developing our GHG Emissions Reduction Plan:



MEASURING CARBON FOOTPRINT



SETTING OF REDUCTION GOALS



DEFINITION OF MEASURES



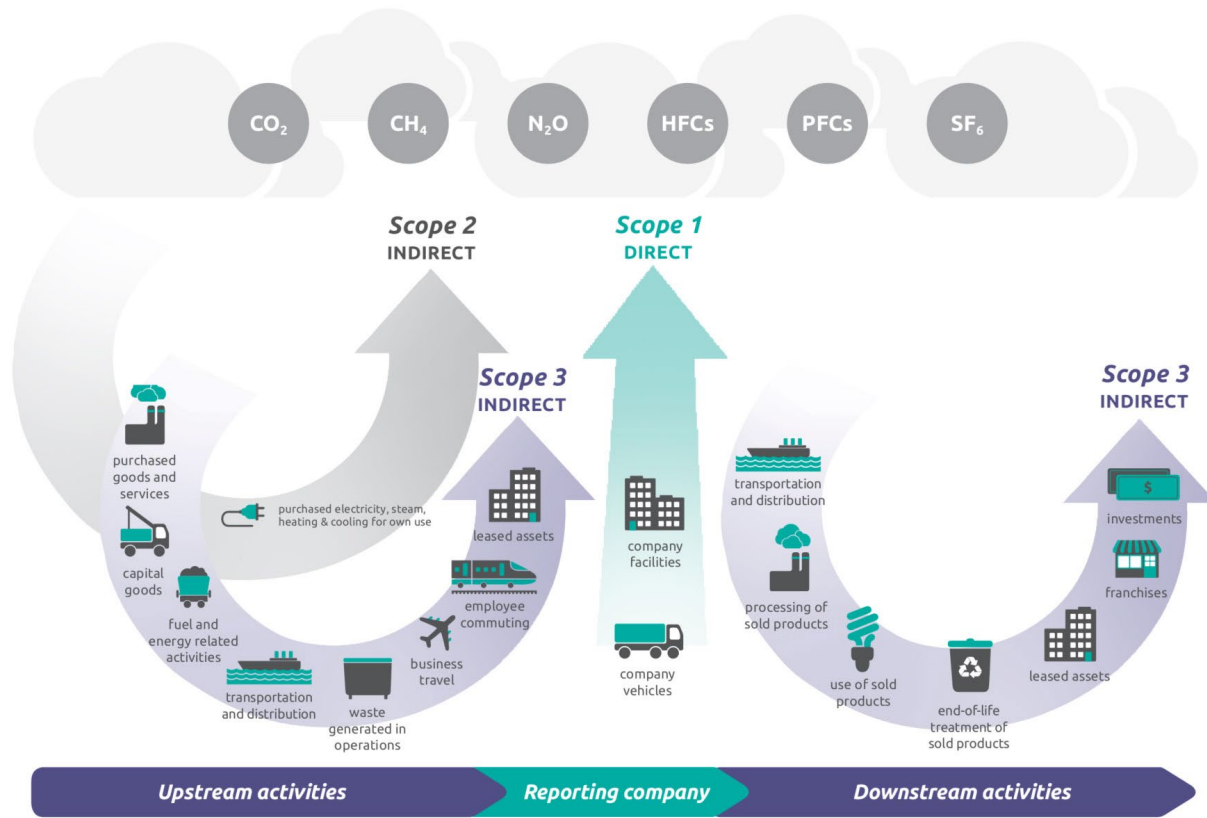
IMPLEMENTATION OF MEASURES



MONITORING PROGRESS

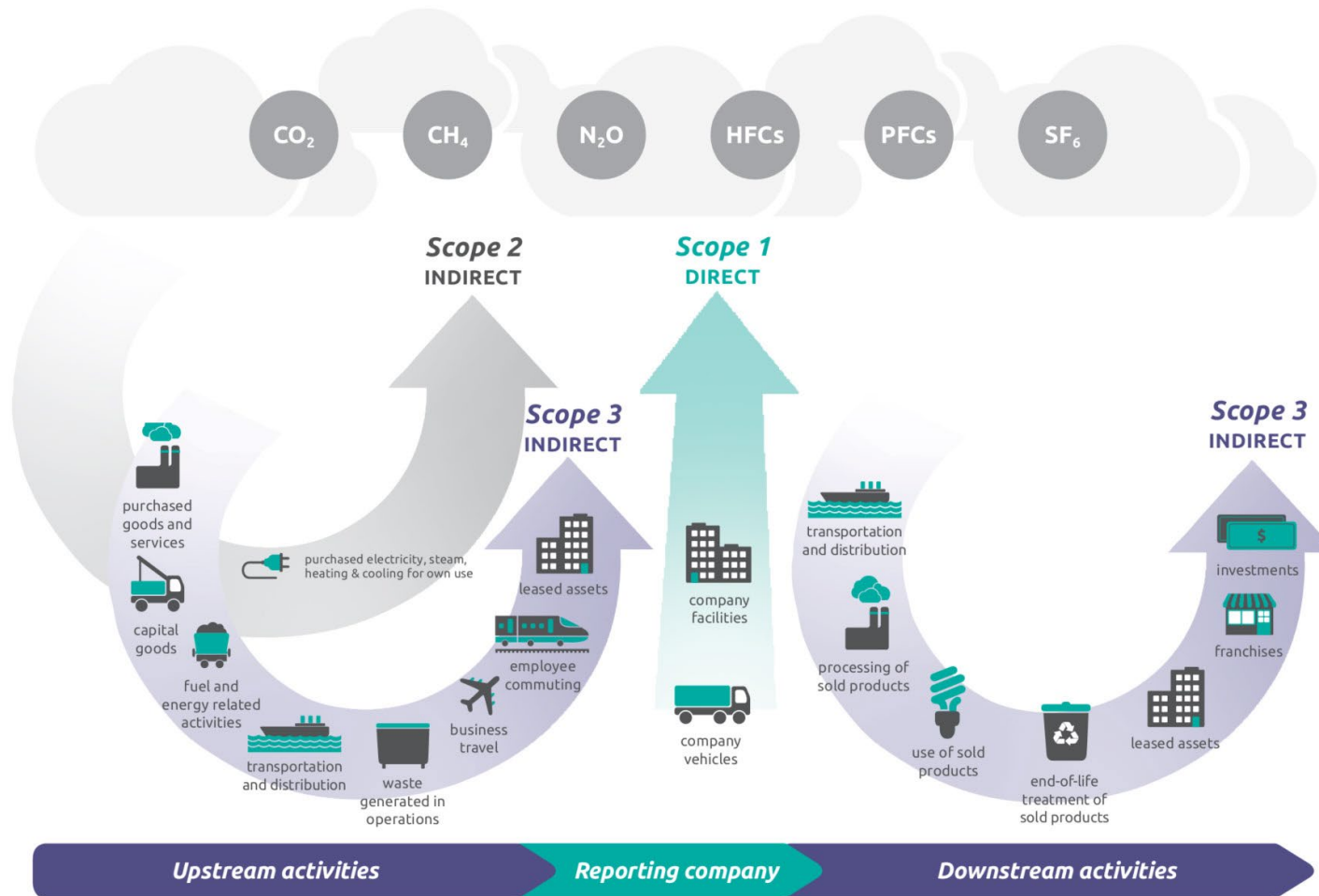
Measuring Our Carbon Footprint

Measuring the companies' GHG emissions footprint is the first step towards developing a robust GHG emissions reduction plan.



Source: GHG Protocol.

Measuring Our Carbon Footprint



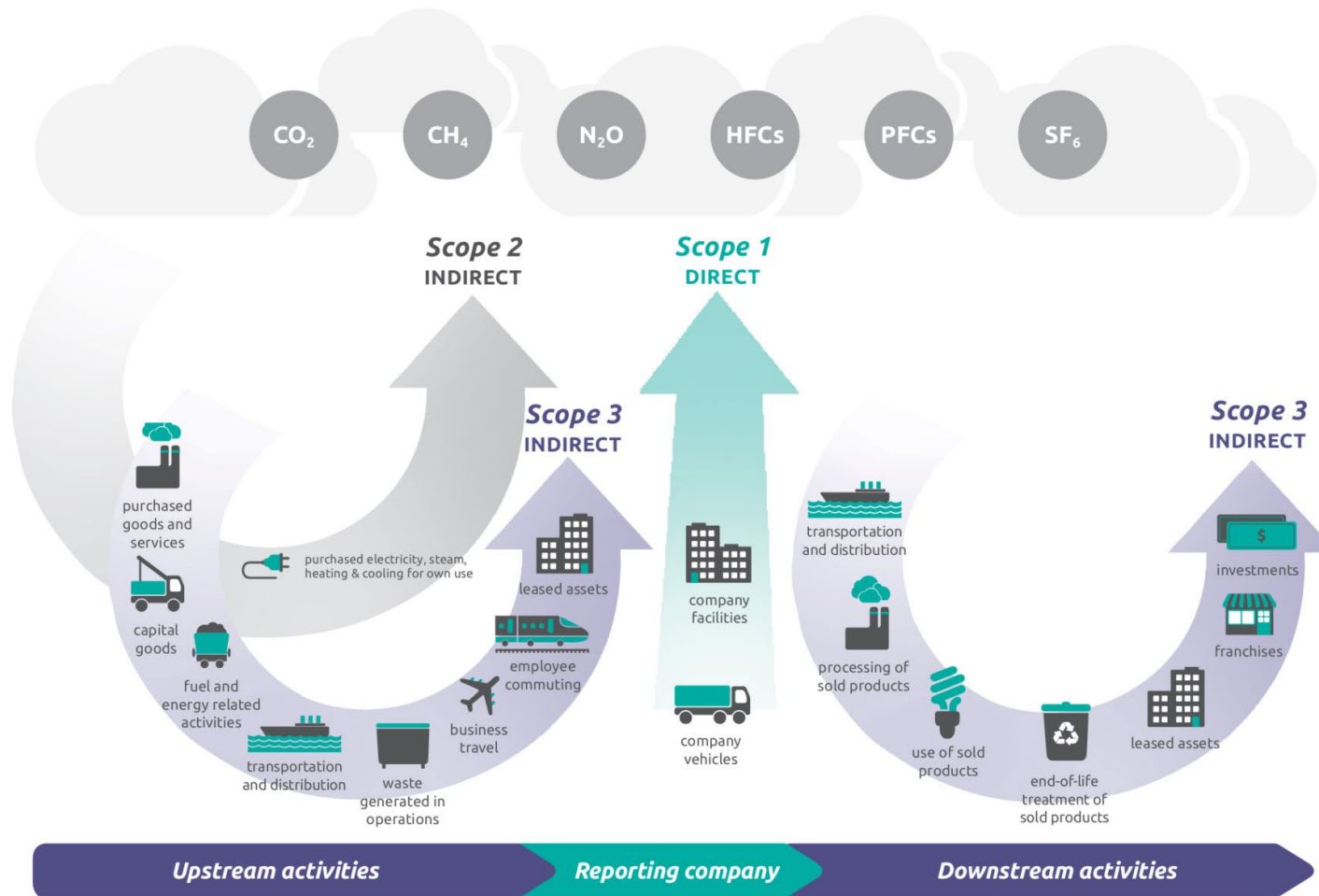
Scope 1
Direct emissions from own or controlled sources (fuels)

Scope 2
Indirect emissions from electricity, steam, heating and cooling generation

Scope 3
Indirect emissions that originate from a company's value chain but are not under the company's control

Source: GHG Protocol.

Measuring Our Carbon Footprint



All three scopes should be included in the company's emissions inventory as per **GHG Protocol Standard** to be able to set realistic and ambitious goals – on the short and long term.

Source: GHG Protocol.

Setting of reduction goals

In the development of GHG emissions reduction targets, it is important to define the following steps:

Definition of ambition



<https://ecologi.com/articles/blog/carbon-neutral-vs-net-zero-whats-the-difference>

Establishment of short and long-term targets



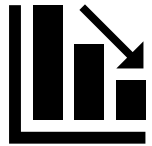
Challenges

DATA RELIABILITY

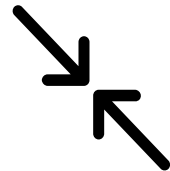
ABILITY TO INFLUENCE

MARKET MATURITY

Measures toll operators can implement to reduce their carbon footprint, can be classified under four main categories:



Efficiency



Reduction

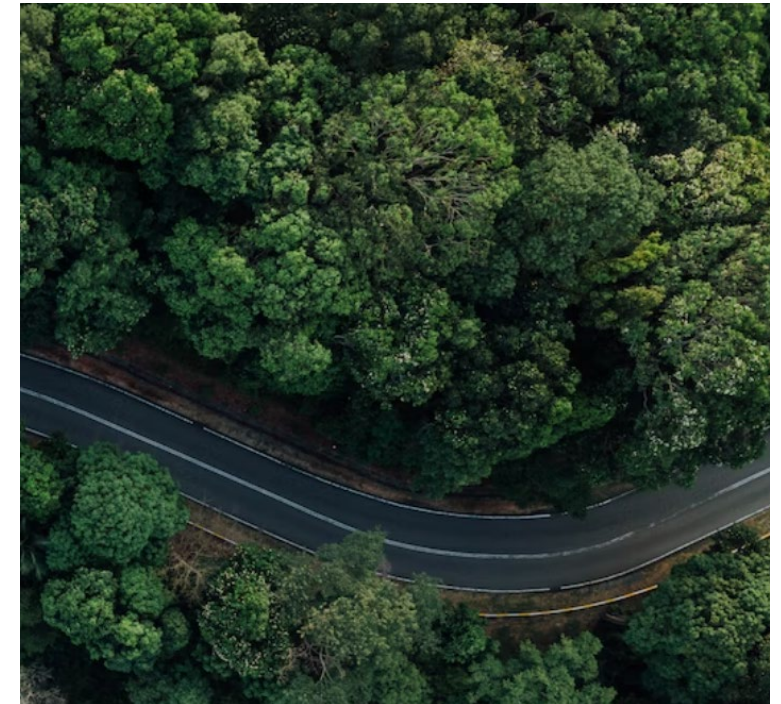


Absorption



Compensation

1st REDUCE – COMPENSATE / ABSORB



The combination of these measures will allow companies to reduce their carbon emissions at a pace aligned with international standards and initiatives.



SCOPE 1



- Change combustion vehicles to hybrid or electric



- Switch equipment to cleaner fuels (biodiesel)



The combination of these measures will allow companies to reduce their carbon emissions at a pace aligned with international standards and initiatives.



SCOPE 2



- Transition to 100% Renewable Energy



- Substitute street lighting to LED

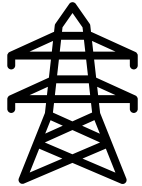


- Implement Solar Energy (Photovoltaic)

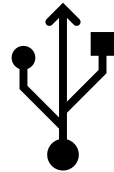


Another key element of the plan is setting a timeline for the implementation of measures.

MAIN CHALLENGES



Energy market
maturity



Technology
development



Regulation
requirements

We cannot stop at the implementation of the measures:

Monitor progress



**Define
reevaluation
criteria**



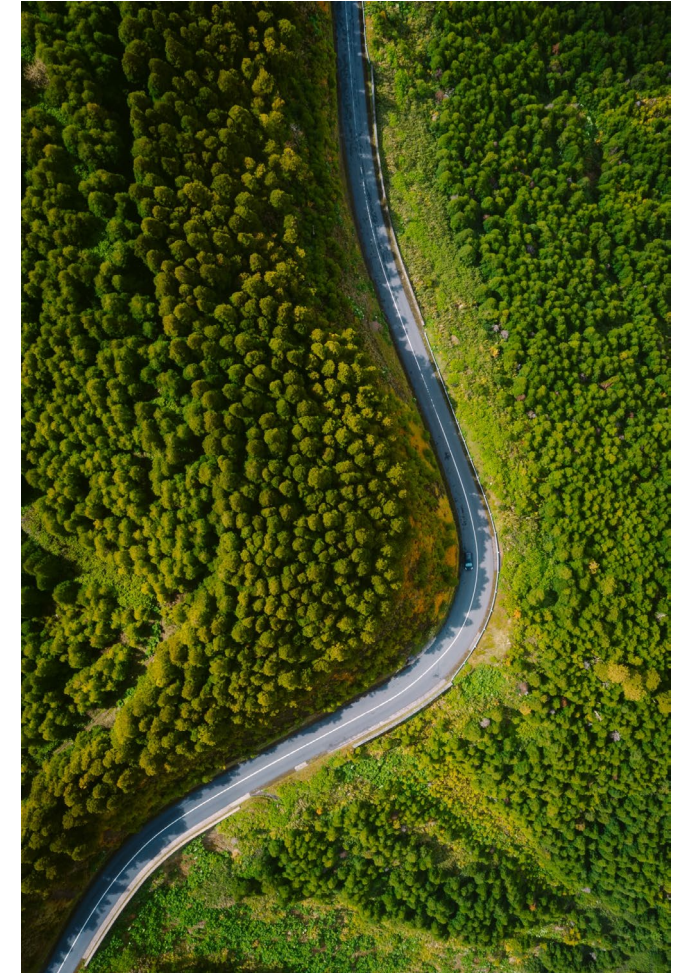
Correct any deviations

Strong reporting and monitoring tools

Relevant change in the Company's activity

Adjust to new regulatory frameworks

Keep an eye on new technologies



ROADIS



Thank you

**ROADIS Transportation
Holding, SLU**

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