



# SUSTAINABILITY ROADMAP 2050

*“Crafting a legacy of positive change,  
ensuring a world where nature, business,  
and society not only coexist but thrive”*



# FRONT

## About

FRONT L.L.C. is a reputable company founded in 2009 in Pristina, Kosovo that specializes in providing high-quality and ecofriendly exterior and interior solutions using the latest technologies and materials.

The company has built a solid reputation for delivering unique solutions with top quality, and visually attractive designs in the main markets such as Kosovo, Albania, North Macedonia and a lot of EU countries.



FUNDERMAX



Heat resistant Eco materials Easy to clean

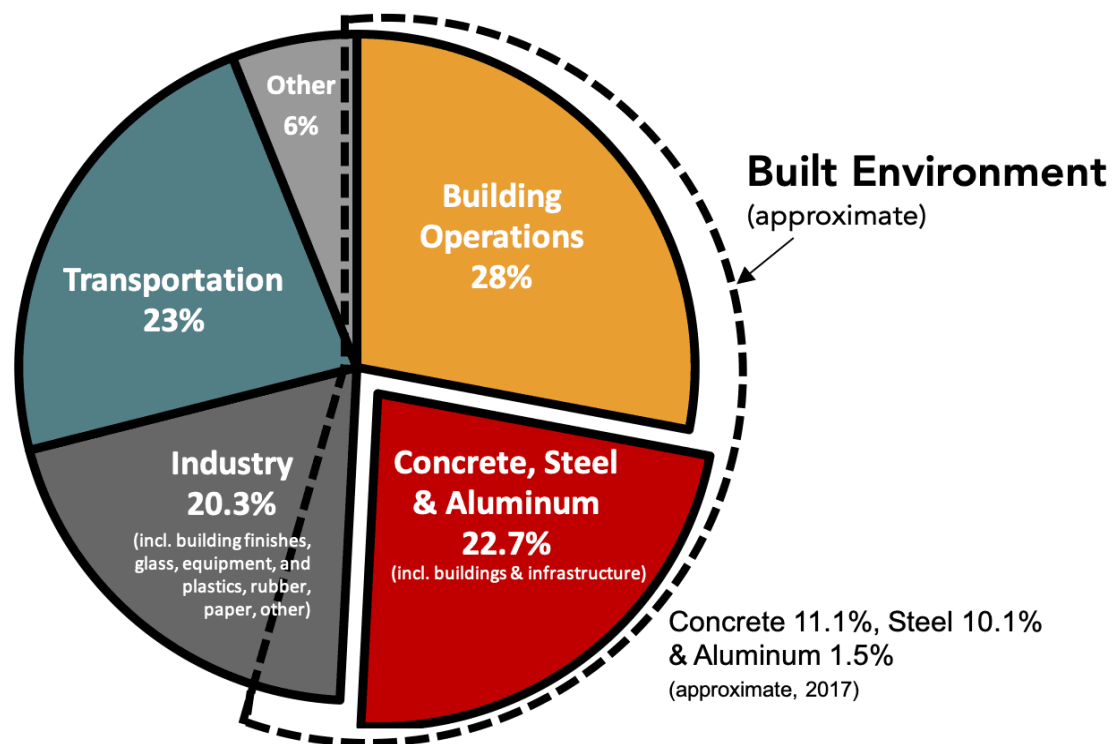




Why Sustainability  
Matters?

**FRONT**

# Exterior Sector: Embodied Emissions



## Global CO<sub>2</sub> Emissions by Sector

Source: IEA, Global ABC, Architecture 2030



**Concrete Production:** Concrete is one of the most widely used construction materials and has a significant environmental impact. It's estimated that the production of cement, a key component of concrete, accounts for approximately 8% of global carbon dioxide emissions.

**Steel Production:** The production of steel, often used in structural elements of buildings, is energy-intensive and emits carbon dioxide. Steel manufacturing accounts for a notable portion of industrial emissions.

**Glass Manufacturing:** The production of glass, used for windows and facades, also contributes to embodied carbon emissions. Glass manufacturing involves high temperatures and energy-intensive processes.

# Interior Sector: Operational Emissions



**Energy Use:** The interior sector of construction contributes to operational emissions primarily through energy use. This includes heating, cooling, lighting, and powering appliances within buildings.



**Appliances and Electronics:** The use of energy-consuming appliances and electronics, such as HVAC systems, lighting, and electronics, contributes to operational emissions over the lifecycle of a building.



**Finishes and Furnishings:** The selection of interior finishes, furniture, and materials can influence indoor air quality and energy consumption. Poor choices can lead to increased energy needs for heating and cooling.

# Roadmap Overview

1

2

3

4

**PHASE ONE: Understanding & Foundation (2023-2025)**

Raising awareness within our stakeholder community to establishing a clear sustainability baseline, this phase is all about gaining clarity and momentum.

**PHASE TWO: Strategy & Pilot Initiatives (2026-2030)**

This is where FRONT begins innovative pioneering initiatives and learning from every success and hiccup.

**PHASE THREE: Full-scale Implementation (2031-2040)**

It's a critical phase where FRONT's core operations, supply chain, and engagement strategies will be viewed through the lens of sustainability.

**PHASE FOUR: Mastery & Leadership (2041-2050)**

FRONT's internal transformation and setting the industry standards.

# FRONT's Core Pillars



**CIRCULAR ECONOMY**

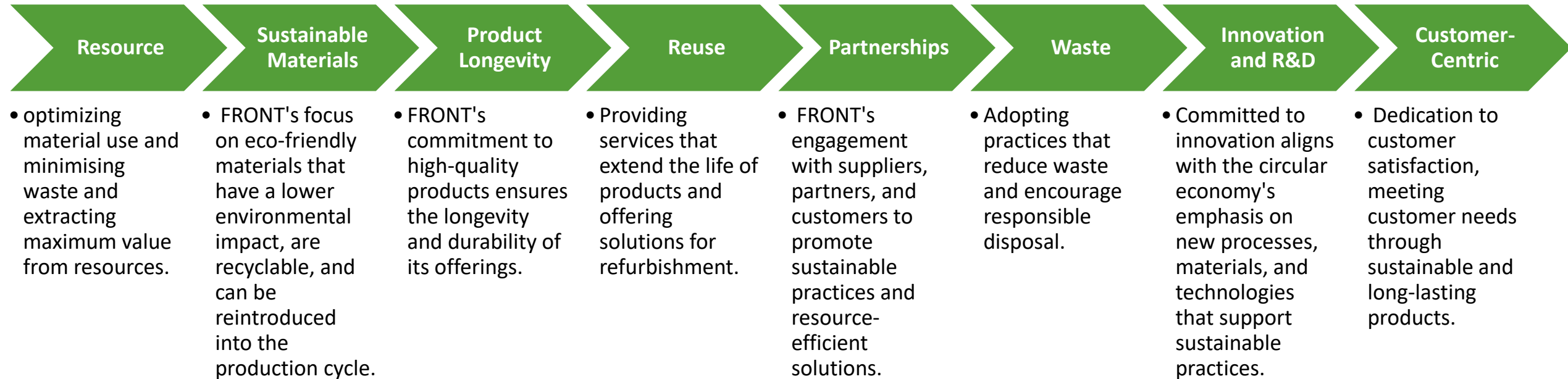


**REGENERATIVE PRACTICES**



**CARBON NEUTRALITY**

# 1. Circular Economy





## 2. Thriving Principles (Regeneration)

1

### **Stakeholder Value Creation:**

FRONT exemplifies the thriving principle of delivering value to all those involved.

2

**Holistic Well-being:** FRONT's approach takes into consideration the holistic well-being of its employees, customers, and the broader community.

3

**3. Ethical and Responsible Practices:** FRONT's commitment to sustainable materials, eco-friendly products, and responsible manufacturing

4

Community FRONT's actively participating in community well-being and development.

5

**Long-Term Sustainability:** FRONT's strategic focus on long-term sustainability, including carbon neutrality and circular economy practices.

### 3. Carbon Neutrality)

- **Alignment with Targets** - FRONT's commitment to carbon neutrality mirrors the EU's objective by striving to offset or mitigate its carbon emissions through various measures.
- **Reduction and Mitigation:** FRONT's efforts to minimize emissions from its operations and supply chain contribute to the broader goal of reducing Europe's carbon footprint.
- **Renewable Energy Transition:** FRONT's adoption of renewable energy for its operations and energy needs not only reduces its carbon footprint but also supports the EU's shift towards sustainable energy systems.

## Road to EU Climate Neutrality by 2050

Spatial Requirements of Wind/Solar and Nuclear Energy and Their Respective Costs



A Peer-Reviewed Publication for ECR Group and Renew Europe, European Parliament, Brussels, Belgium

Katinka M. Brouwer, LL.M., dr. Lucas Bergkamp (editor)

Brussels, January 2021

# Phase 1: Understanding & Foundation (2023 - 2025)



**Holistic Assessment:**  
 FRONT will conduct a comprehensive audit of its operations, supply chains, and products identifying carbon footprints, waste streams, and opportunities for integration of thriving principles.



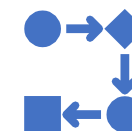
**Engaging Stakeholders:**  
 Inclusive engagement with employees, suppliers, customers, and industry peers will provide crucial insights, align expectations, and foster collaborative efforts that shape our future strategies.



**Knowledge Empowerment:**  
 FRONT will invest in training, workshops, and partnerships to ensure our team is well-prepared with the expertise and skills needed to implement and innovate in alignment with the roadmap's objectives.



**Defining Precise Targets:**  
 Building on insights, FRONT will establish clear, measurable goals for each pillar, striking a balance between ambition and feasibility. These targets will guide our determined efforts throughout the ensuing decades.



**Pioneering Pilots:**  
 FRONT will initiate and assess small-scale projects that embrace circular economy practices, carbon reduction techniques, and thriving principles.

# Phase 2: Strategic Planning & Pilot Projects (2026 – 2030)



**Stakeholder Engagement:**

Identify and engage stakeholders, such as suppliers, partners, customers, and communities, to shape FRONT's strategy, valuing their input.



**Collaborative Dialogue:**

Foster effective collaboration through workshops, discussions, and feedback channels, integrating stakeholder insights into planning.



**Transparent Communication:**

Maintain transparency by sharing progress and challenges openly, ensuring clear communication with stakeholders.



**Innovative Solutions:**

Approach challenges as opportunities, using brainstorming, innovation challenges, and hackathons to develop solutions that advance sustainability goals.



**Feedback-Driven Improvement:**

Continuously improve by gathering and acting on stakeholder feedback, ensuring alignment with evolving expectations.

# Phase 3: Full Scale Implementation (2031 – 2040)



**Innovative Leadership for Sustainable Advancements:**  
Championing innovation, FRONT will lead the industry by creating ground-breaking solutions that reshape norms and drive sustainable progress.



**Collaborative Ecosystem for Collective Impact:**  
Through partnerships and alliances, FRONT will cultivate a collaborative ecosystem that promotes knowledge sharing, co-creation, and industry-wide progress.



**End-to-End Value Chain Sustainability:** FRONT commits to sustainability across its value chain, optimizing sourcing, embracing circular economy models, and minimizing waste at every stage.



**Empowerment Through Awareness and Education:** By raising awareness and providing education, FRONT will inspire and drive sustainable practices within the organization, industry, and beyond.



**Data-Driven Adaptability and Empowered Workforce:**  
FRONT will make informed decisions through data analytics, enabling continuous monitoring, agile strategy refinement, and empowering an employee-driven culture of sustainability.

# Phase 4: Mastery & Leadership 2041 – 2050



**Industry Standards Redefined:** Phase 4 marks a transition from implementation to industry leadership. FRONT's focus is on setting new industry benchmarks in sustainability, becoming a catalyst for systemic change in the design materials sector.



**Strategic Advocacy:** Initiatives are strategically aligned to influence wider industry practices. FRONT aims to shape policy, drive innovation, and establish new metrics for sustainable operations through purposeful actions and partnerships.



**Collaborative Innovation:** FRONT forges partnerships that foster cross-industry innovation, contributing to the development of groundbreaking solutions that transcend traditional boundaries.



**Thought Leadership:** FRONT becomes a beacon of thought leadership and knowledge dissemination, actively sharing experiences, insights, and best practices to inspire others in the pursuit of sustainable excellence.



**Sector-wide Transformation:** Phase 4 represents the culmination of previous efforts, enabling a sector-wide transformation by redefining business models and sparking a collective shift toward responsible and sustainable practices.

# Our Innovative Solutions



**LEED-Certified Factory:** Our new factory embodies our commitment to sustainability, designed with LEED certification in mind. This facility sets a new standard for eco-friendly practices, reflecting our dedication to integrating environmental stewardship into all aspects of our operations.



**Renewable Energy Transition:** Committed to the planet, we aim to transition to 100% renewable energy. By harnessing solar power, we're reducing our reliance on fossil fuels, significantly cutting our carbon footprint, and actively contributing to environmental sustainability.



**Carbon Capture and Offset:** Our comprehensive approach to addressing climate change includes investing in advanced carbon capture technology and engaging in offset programs. This dual strategy reduces our carbon footprint while supporting global reforestation efforts.

Carbon Capture and Offset



# GHG Inventory

Report

For the year of

# 2022

@SustainaLab



## Introduction

As part of its sustainability transitioning strategy FRONT has dived into its carbon activities operational wise. The GHG Inventory is only one of the many first steps that the company has taken to look back and see what it can improve moving forward.

The GHG Inventory presented, is only still an initial step that includes a basic level carbon calculation. In terms of timeline, this inventory encompasses the activities within the year 2022, which is also established as the base level for future calculations.

With the GHG inventory FRONT initiated the process of Carbon Calculation of its operation adding value to its Sustainability transitioning, as well as the upcoming step on starting its voluntary Sustainability Reporting process.

FRONT's GHG Inventory bases its calculation methods on the GHG Protocol Calculator, and it includes Scope 1, 2, and Scope 3 (transportation).

Scope 4, was considered during the calculations and the presentation of the results, which will help FRONT align the results once transitioned into the new sustainable building location.

## GHGs - Greenhouse Gases

Greenhouse Gases or GHGs are gases that trap the heat in the atmosphere. GHGs are emitted from different sources, but the largest emitters are the burning of fossil fuels for electricity, heat, and transportation. The larger the emissions of GHGs the higher the concentration in the atmosphere. The issue with Greenhouse Gases is not just the concentration, but also how long they remain in the atmosphere. GHGs remain in the atmosphere for different periods of time, some stay for a few years, and others for up to thousands of years.

Some of the main and most harmful GHGs are:

CO<sub>2</sub> - Carbon Dioxide: enters the atmosphere through the ecological cycle which is trees, and through human activity such as fossil fuels, solid waste, and certain chemical reactions such as Cement Production.

CH<sub>4</sub> - Methane: enters the atmosphere during fossil fuel (coal, natural gas, and oil) production and transport. CH<sub>4</sub> is also emitted through livestock, agricultural & and land use practices and the decomposition of organic waste in solid waste landfills.

N<sub>2</sub>O - Nitrous Oxide: enters the atmosphere through industrial activities, during agricultural and land use processes. N<sub>2</sub>O is also highly emitted during the combustion of fossil fuels and also during wastewater treatments.

# GHG Inventory

A GHG Inventory helps to better understand the GHGs that are released during our company activity and operations. It is a tool that lists emission sources and helps the company/organization better identify risks and potential emission reductions.

The GHG Inventory consists of 4 scopes:

Scope 1: It includes all the emissions or emission sources that the company controls directly.

Scope 2: It includes all the emissions that are caused by the company indirectly.

Scope 3: Emissions indirectly released through the company's Value Chain.

Scope 4: Avoided emissions.

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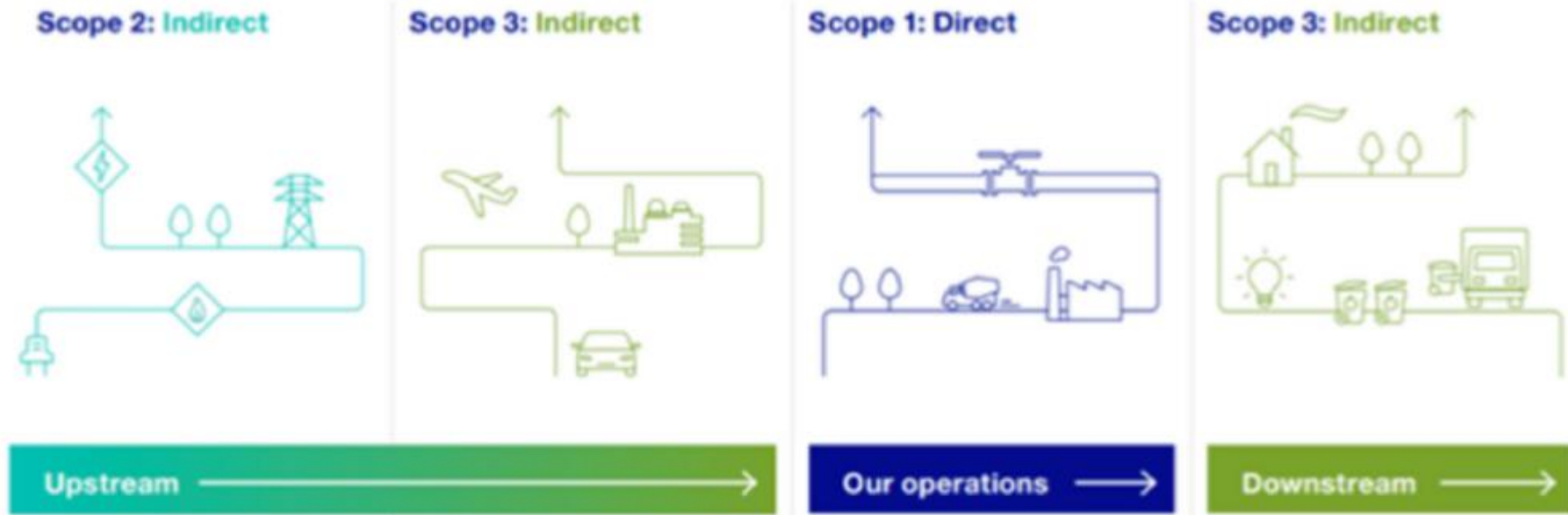
Scope 2: It includes all the emissions that are caused by the company indirectly.

Scope 3: Emissions indirectly released through the company's Value Chain.

Scope 4: Avoided emissions.

# GHG DIAGRAM

ALONG THE VALUE CHAIN (UPSTREAM TO DOWNSTREAM)  
SOURCE: NATIONAL GRID, 2023



- LNG (liquified natural gas) use of electricity
- Facilities use of electricity

- Purchased Goods and Services
- Business Travel (small)
- Employee Commuting (small)
- Sold electric - use by customers
- Waste Management (small)

- Leaks and venting emissions from gas network.
- LNG venting and fuel
- SF6 leaks from electricity equipment
- Fleet fuel use

- Sold products/materials - used by customers

# Scope 1

Scope 1 emissions are emissions that have been directly caused by the company, or more precisely are emissions that the company is in control of. The emissions in Scope 1 are sourced from two points: Company facilities and Company vehicles. Thus, this scope includes Stationary Combustion and Mobile Combustion.

Stationary Combustion:

includes the GHGs emitted through the combustion of fuels.

Mobile Combustion: includes the GHG emissions from the burning of fuels from the vehicles that are owned or leased by the company.

FRONT - Company Results

|                          | CO2<br>(tonnes) | CH4<br>(tonnes) | N2O<br>(tonnes) | EF<br>(kgCO2e/unit) |
|--------------------------|-----------------|-----------------|-----------------|---------------------|
| Stationary<br>Combustion | 0.00            | 28.8            | 14.4            | 1252.8              |
| Mobile<br>Combustion     | 29.352          | 0.000032        | 0.000065        | 10.216              |
|                          | 4.960           | 0.000208        | 0.000043        | 8.812               |

## Scope 2

Scope 1 emissions are emissions that are owned by the company but are indirectly emitted. Meaning, the GHG emissions lined under Scope 2 come from the purchased energy, and are generated by the energy provider.

The amount of these scope's emissions is heavily dependent on the operations of the company. In the case of manufacturers, Scope 2 emissions are usually on a higher level.

FRONT's results below are heavily dependent on external factors, in this case on the lack of Grid sources. Kosovo is still on a closed grid, and its national provider sources its energy from Coal, so for the moment the company does not have alternatives to switch when it comes to Purchasing Electricity.

FRONT - Company Results

|                          | CO2<br>(tonnes) | CH4<br>(tonnes) | N2O<br>(tonnes) | EF<br>(kgCO2e/unit) |
|--------------------------|-----------------|-----------------|-----------------|---------------------|
| Purchased<br>Electricity | 22.863          | 2.573           | 0.374           | 194.13              |

## Scope 3

Emissions resulting from Scope 3 are indirect GHG that come from the company's Value Chain. Compared to the other two scopes, scope 3 is more complicated, and the challenges with this scope's inventory are more present the more operation and market expansion the company has.

The level of attention required to cover the Scope 3 emissions, has resulted in calculators being developed just for this scope alone.

For the basic level of GHG calculations for FRONT, Scope 3 in this case only includes the Transportation Emissions (Business Travel and the Employee Commute). Considering this, the Scope 3 calculation in this Inventory only represents a very small portion of GHG Emissions.

FRONT - Company Results

|                | CO2<br>(tonnes) | CH4<br>(tonnes) | N2O<br>(tonnes) | EF<br>(kgCO2e/unit) |
|----------------|-----------------|-----------------|-----------------|---------------------|
| Transportation | 2.846           | 0.158           | 0.091           | 4.096               |
|                | 111.05          | 6.152           | 3.561           | 4.096               |



## Scope 4

Scope 4 has only been recently included in the GHG Inventory by the World Resource Institute. The purpose of this scope is to count the avoided emissions. These reductions occur outside of a product's life cycle or its value chain, but they happen as a result of the use of that product.

Different from the other 1-3 Scopes, Scope 4 does not follow an officially recognized standard for measurement or reporting, as there is no agreed standard yet.

On the current state of the company, FRONT did not calculate Scope 4 Emissions. This calculation will start with the new location and utilization of the Sustainable building. The team was however introduced to the scope and was encouraged to think of the potential avoided emissions.

There are two approaches when it comes to the methods chosen for the Scope 4 calculation of emissions:

### 01 Consequential approach

includes the assessment of the changes in emissions, system-wide based on specific decisions.

### 02 Attributional approach

includes the assessment of absolute emissions and removals of a product, based on the comparisons to a reference product.

## Recommendations

On a general note, the main recommendation for the company to move forward with its GHG Inventory is to list their interventions and set Emission Reduction Targets. This, however, would be most helpful once the company moves to its new location and fully functionalizes its sustainable operation.

An emission tracking database/software would help FRONT document its changes and it would support the transparency when it comes to Company's decision for Voluntary Sustainability Reporting.

The current GHG Inventory results for FRONT represent the traditional operation that the company is currently applying. However, with the sustainable transitioning of the company, once moved into the new location FRONT will assess its emission sources and identify potential reductions moving forward.



### Scope 1

- The implementation of a different alternative to the Burning of Fuels for company energy needs would help reduce the Stationary Combustion.
- Organizing a model for company car tracking (in terms of fuel paid) would help the generation of better cal values for the Mobile Combustion.

### Scope 2

- For FRONT this scope is dependent on the energy policies that will be implemented in Kosovo, and the alternatives that the market will offer once the energy grid is open to other private grids.
- Switching to other alternatives to in-house energy generation such as renewables would help the company reduce Scope 2 emissions.



### Scope 3

- For the current calculations which only include the transportation, the implementation of a transport strategy for employees would help reduce the emissions in this scope. An alternative here would be ride-sharing or mini-bus for the employees coming from a similar area.

### Scope 4

- An internal assessment of the avoided emissions, once moved into the new company location, would help to define Scope 4.



## Conclusion

FRONTs decision to start its GHG Inventory is a first step towards Voluntary Sustainability Reporting. This will put the company on the map for its professionalism and seriousness towards GHG Emission reduction targets. Considering that Carbon is still in the discussion phase in Kosovo, the GHG Inventory and Sustainability Reporting make FRONT (a representative from the private sector) a first mover, hence always a few steps forward to its competition and other market players.

- FRONT's GHG Inventory was generated using the GHG Protocol Calculator
- Emission Factors are based on the IPCC Fifth Assessment
- The calculation is based on the Custom Emission Targets. (As Kosovo has no Emission Targets)
- Once moved to the new location, FRONT will redo the GHG Inventory for the base year, as the difference is very high in terms of operation when comparing the two locations.
- FRONT will use the current GHG Inventory as a basis for comparison when it comes to the Company Emissions in the current location.

Contact  
E-mail: [info@front-group.com](mailto:info@front-group.com)  
Web: [www.front-group.com](http://www.front-group.com)

