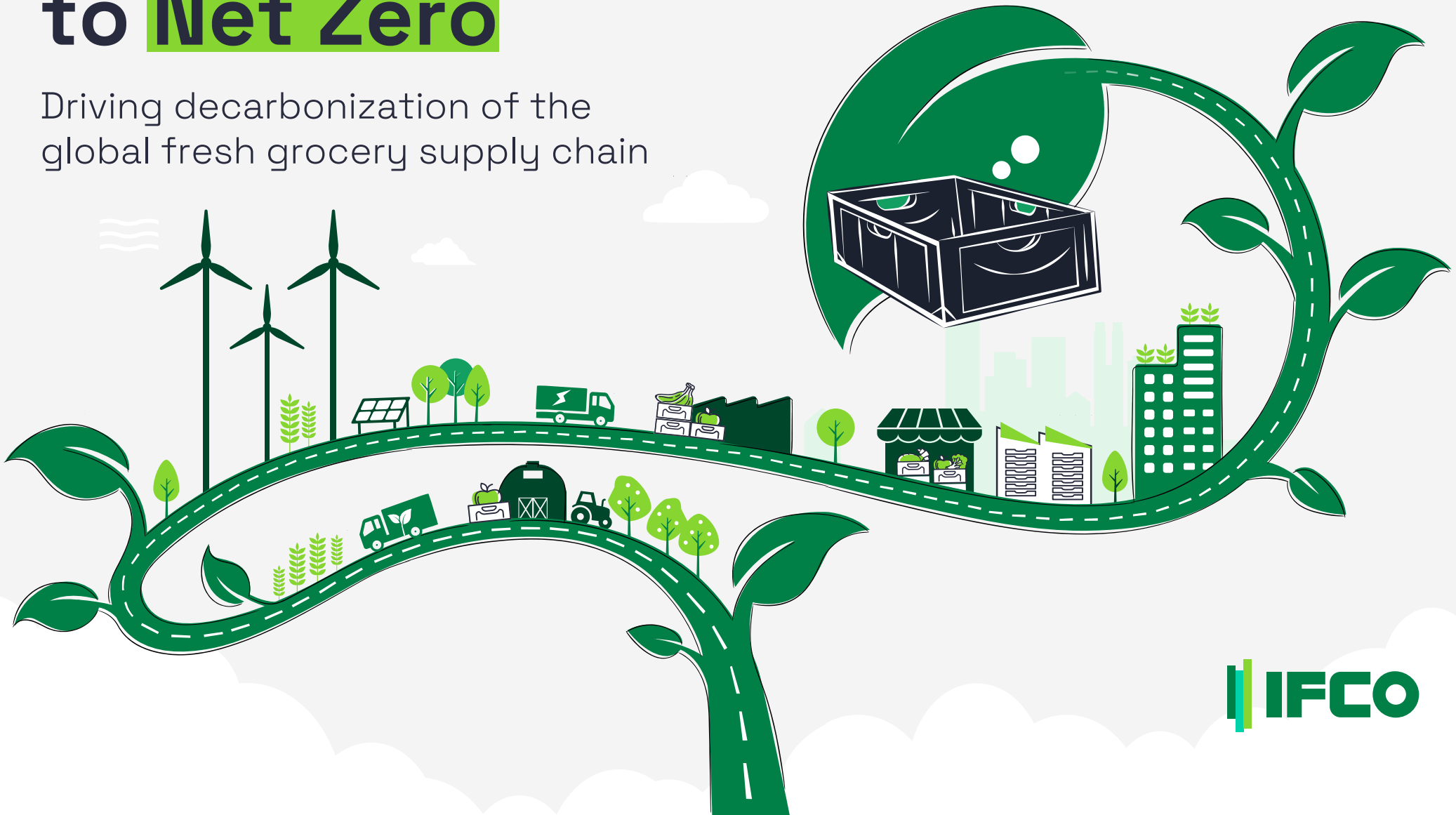
The IFCO roadmap to Net Zero

Driving decarbonization of the global fresh grocery supply chain



IFCO

IFCO's unique business model

Share. Reuse. Recycle. These three words describe the heart of our circular business model: the IFCO SmartCycle. Pioneered in 1992, our innovative pooling system is the backbone of a sustainable fresh grocery supply chain. Our reusable packaging containers (RPCs) have long enabled producers and retail operations around the world to reduce carbon emissions, energy use and water consumption as well as single-use packaging and food waste. The circular approach of our pooling system ensures the highest possible levels of operational efficiency, food safety and sustainability.

By driving resource efficiency in the production, usage and recycling of packaging, which is verified by independent life cycle assessments, we are helping our partners reduce the use of single-use packaging and reach our common goal of making the supply chain sustainable. We achieve this by being leaders in customer-centric innovation, by developing and adopting digital solutions to bring better visibility to the supply chain, and by accelerating our efforts to address greenhouse gas (GHG) emissions throughout the life cycle of our products and across our operations.

And yet, there is still room for improvement. We have made bold commitments to become even more sustainable, as outlined in our Environmental, Social and Governance (ESG) 2025 strategy[1]. However, we are also looking even further ahead. By 2040, we want to fully decarbonize our operations and become a Net Zero business.

This report provides an overview of the concrete steps we will be taking to drive us forward to reach that ambitious goal. We identify and commit to win-win solutions that will reduce or avoid greenhouse gas emissions across our operations in the coming months and years.

Welcome to the IFCO roadmap to Net Zero.

[1] IFCO & ESG: https://www.ifco.com/about-ifco/sustainability/

Contents

Measuring our carbon footprint

IFCO publishes detailed information on our Scope 1, 2 and 3 material emissions annually, following the guidelines of the Greenhouse Gas (GHG) Protocol. This ensures we can better identify, measure and monitor Scope 1 and Scope 2 emissions that are linked to our activities, as well as better understand Scope 3 indirect emissions along our supply chain. We can calculate how far we far we have come and where we need to focus our efforts to reduce our carbon footprint and progress toward Net Zero. The infographic below summarizes the key sources of GHG emissions from 2021.

By following an ambitious decarbonization strategy, we aim to become a Net Zero business across Scope 1, 2 and 3 by 2040.

2021 total GHG emissions 618kt CO_2e

By scope

SCOPE 1

Direct emissions from owned operations, such as on-site fuel combustion and fuel for IFCO's fleet of vehicles.

7.0 (1%)

SCOPE 2

Indirect emissions from purchased electricity used at own locations.

6.0 (1%)

SCOPE 3

All other indirect material emissions come from fuel and electricity consumption at our partner service centers, the use of raw materials and energy at partner manufacturing sites, and fuel and electricity consumption for subcontracted transport services.

604 (98%)

IFCO's commitment to SBTi and Net Zero by 2040

Deep. Rapid. Sustained. These three words stand out in the 2023 Sixth Assessment Report from the IPCC [1], the Intergovernmental Panel on Climate Change. As the report highlights, it's imperative to make "deep, rapid and sustained" greenhouse gas (GHG) reductions to limit global warming to 1.5°C above pre-industrial levels, and this needs to happen across all industries and regions.

At IFCO, we embrace this challenge. By defining a decarbonization roadmap toward becoming a Net Zero business by 2040, we have accelerated our efforts to reduce absolute GHG emissions. The first step on this pathway is our commitment to the Science Based Target initiative (SBTi)[2]. In November 2023, our near-term science-based targets for 2031, which are aligned to a 1.5-degree scenario, were independently validated by the SBTi. Our progress toward these targets is measured against our 2021 GHG emissions. For IFCO, therefore, 2031 is a key milestone on our Net Zero journey.

To move forward on decarbonization, we will be implementing a range of operational levers and working closely with our partners and suppliers. With the tools available to us today, we are already reducing GHG emissions along the entire fresh grocery supply chain. Our Net Zero ambition confirms our commitment to boldly innovate and drive further reductions in the future.

What is the SBTi?

In setting our near-term science-based targets and defining our decarbonization roadmap, we have closely followed the criteria defined by the Science Based Targets initiative (SBTi). The SBTi guides businesses in the setting of credible science-based targets in line with current climate science. SBTs help define a pathway to future-proofing growth that is in line with the 1.5°C trajectory recommended in the Paris Agreement[3].

IFCO commits to reduce absolute scope 1 and 2 GHG emissions 46.2% by FY2031 from a FY2021 base year. IFCO also commits to reduce absolute scope 3 GHG emissions from purchased goods and services and upstream transportation and distribution 17% within the same timeframe.

IFCO 2031 near-tearm science-based targets

SCOPE 1	SCOPE 2	SCOPE 3
Reduce Scope 1 and Scope 2 emissions **by 46%** by FY31, compared to FY21.		Reduce absolute[4] Scope 3 emissions **by 17%,** compared to FY21.

[1] 2023 Sixth Assessment Report from the IPCC , the Intergovernmental Panel on Climate Change: https://www.ipcc.ch/assessment-report/ar6/
[2] The Science Based Targets initiative (SBTi): https://sciencebasedtargets.org/
[3] The Paris Agreement: https://unfccc.int/process-and-meetings/the-paris-agreement
[4] Material emission sources in scope approved by SBTi.

Becoming a net zero business by 2040

The IFCO roadmap to Net Zero builds on our commitment to realize our Net Zero greenhouse gas (GHG) vision by 2040 and highlights the pivotal levers and key milestones along the way. Over the following pages, we will present our broader portfolio of additional levers by three focus areas, namely carbon-neutral Service Centers, low-carbon RPCs and decarbonizing supply-chain transport. This comprehensive approach will deliver an initial short-term boost, improve near-term performance and realize the full potential of our decarbonization activities.

In the short-term, we commit to implementing 100% renewable electricity for RPC washing at IFCO Service Centers. Already by 2025, our operations will be carbon neutral. Over the near-term, as we ramp up our decarbonization activities, we will drive initiatives that reduce our Scope 3 material emissions and achieve our validated near-term science-based targets (SBTs) by 2031. Primarily, we will achieve this by focusing on producing and using low-carbon RPCs and decarbonizing subcontracted transport. Finally, we will achieve our full potential and become a Net Zero business by leveraging breakthrough technologies. As a result, we fully anticipate being able to limit virgin plastic in our products in the future and deploy zero-emissions transport technologies and logistics, as they become available and economically viable.

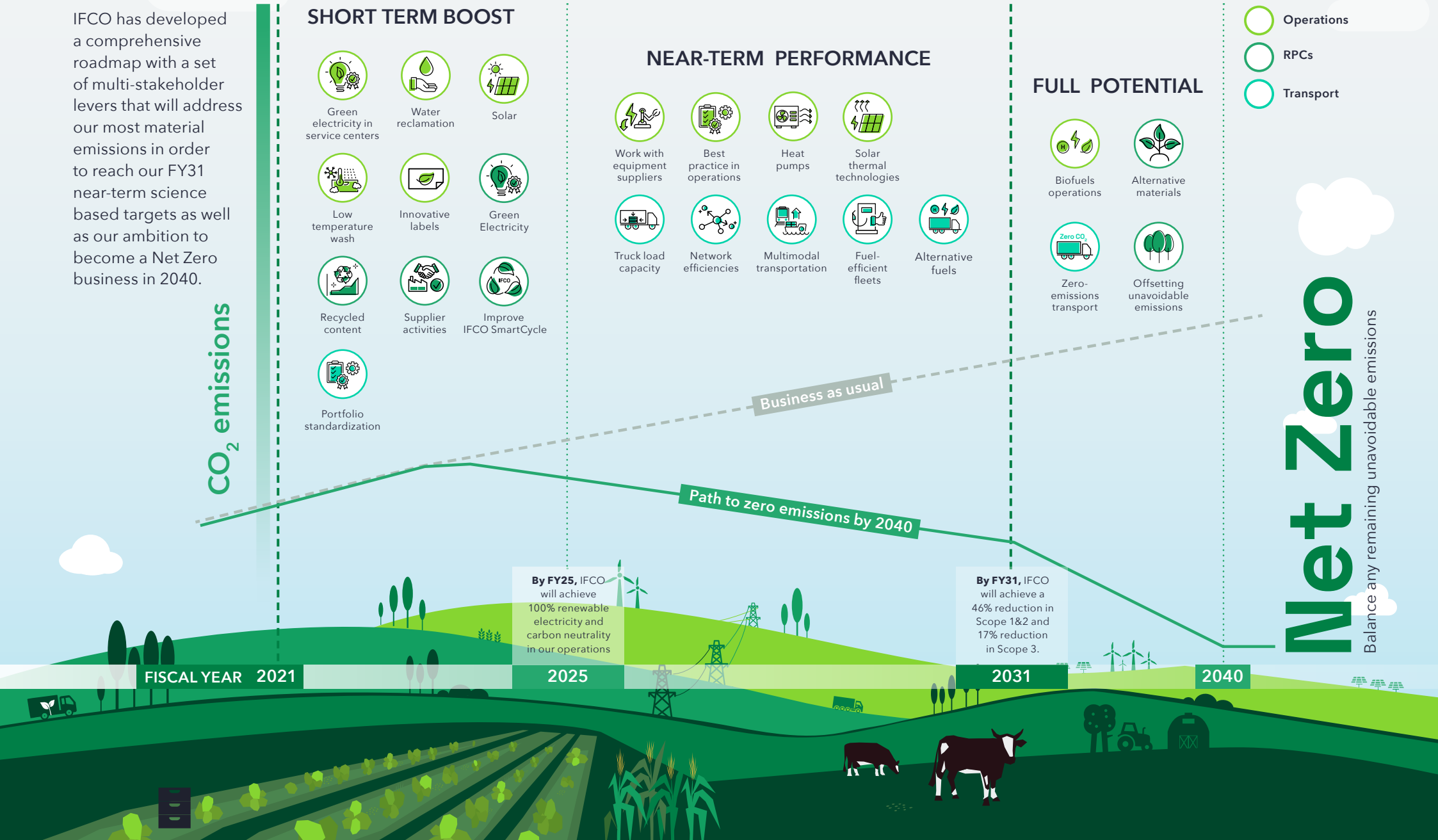
As our roadmap shows, our long-term growth projections indicate that "business as usual" would lead to an increase in GHG emissions. In contrast, our decarbonization roadmap allows us to grow our business while still staying on track to achieve our SBTs in preparation to become a Net Zero business by 2040.

> **Net zero is an ambitious goal, but it's one we're passionate about realizing because we know we need to go above and beyond to make our circular business model even more sustainable."**

Iñigo Canalejo, Vice President ESG and Strategic Marketing

The IFCO roadmap to Net Zero

IFCO has developed a comprehensive roadmap with a set of multi-stakeholder levers that will address our most material emissions in order to reach our FY31 near-term science based targets as well as our ambition to become a Net Zero business in 2040.



Carbon-neutral Service Centers

In IFCO-operated Service Centers, a significant portion of our Scope 1 material emissions comes from heating water to wash and sanitize our RPCs. As for Scope 2 material emissions, they primarily result from the electricity consumption associated with our automated processes.

We have committed to greening the electricity of all IFCO-operated Service Centers by 2025. Currently, we mainly use natural gas to heat water for washing and sanitizing our RPCs, however, we are exploring ways to reduce gas consumption, for instance by implementing low-temperature wash cycles, as well as low-carbon technologies, including solar thermal solutions and heat pump installations. When it comes to Scope 2 material emissions, our switch to renewable energy is already underway. In addition, we will also ensure that 50% of our outsourced sites will operate with renewable electricity by 2025.

If we continued to operate "business as usual" (BAU) as we grow our business, we would expect our carbon footprint to increase proportionately. Therefore, to reach our near-term science-based target of a 46% absolute reduction in both Scope 1 and Scope 2 material emissions by 2031, we are committing to an actual reduction of these emissions by 73% when compared to BAU calculations.

Key activities to reach our 2031 emissions goal

- Purchase 100% certified green electricity for IFCO-operated Service Centers.
- Improve energy efficiency for wash processes.
- Use heat recovery systems and install heat pumps.
- Implement low temperature wash and sanitization of RPCs.
- Install solar and solar thermal technologies.
- Identify transferable best practices and benchmarks for partner Service Centers.
- Work with equipment manufacturers on their efforts to decrease energy consumption of their products.

IFCO emissions in $ktCO_2e$

Scope 1 & 2

FY21 BASELINE	FY31 TARGET	ABSOLUTE EMISSIONS REDUCTION TARGET	ACTUAL EMISSIONS REDUCTION VS. BAU
13.0	7.0	-46%	-63%

Producing low-carbon RPCs

As we continue to expand our circular pooling model into new regions to replace single-use packaging in the fresh grocery supply chain, we will be investing in new RPCs that have a long service life and are 100% recycled within the IFCO SmartCycle pooling system. Currently, such durable RPCs are made from plastic, which is one main source of our Scope 3 material emissions, which in total account for over 98% of our carbon footprint. We will initially address this challenge by primarily switching to green electricity in the recycling and production processes. Other key levers include limiting the use of virgin plastic in the production of our RPCs and reducing the number of new RPCs needed by further improving the IFCO SmartCycle. In addition, we continue to explore the use of alternative materials for our RPCs and will make timely, informed decisions to bring about the impact we need to see.

Key activities to reach our 2031 emissions goal

Work with partners using renewable energy in manufacturing sites. Electricity is the main energy required for regrinding and recycling 100% of our broken RPCs as well as transforming plastic and manufacturing new IFCO RPCs. By working with our partners to switch to green electricity, we will be able to reduce the carbon footprint of our RPCs.

Increase the ratio of recycled content in our RPCs. Recycled plastic has a very small footprint, especially when it is part of the IFCO SmartCycle closed loop recycling process. The carbon footprint of recycled plastic is mainly associated with transport and in the preparation for its reuse. For every kilogram of recycled content in our RPCs that replaces virgin plastic, we can reduce the total carbon footprint of each RPC.

Improve the IFCO SmartCycle. By increasing the turn rate, which is the number of times that a RPC is used per year, and preventing RPC loss or breakage, we can reduce the number of new RPCs needed and therefore lower the carbon footprint of our business.

IFCO emissions in $ktCO_2e$

Scope 3 - Category 1: Purchased goods and services

FY21 BASELINE	FY31 TARGET	ABSOLUTE EMISSIONS REDUCTION TARGET	ACTUAL EMISSIONS REDUCTION VS. BAU
295.9	214.5	-27.5%	-32.5%

Decarbonizing supply-chain transport

The other primary source of our Scope 3 material emissions is subcontracted transport. As our RPCs are stackable and foldable, they are already designed to minimize our transportation footprint. Managing our logistics network in the most efficient way is a fundamental part of our business model. Nevertheless, we have identified a set of levers to further improve our logistics to achieve our SBTs.

By using SBTi Sector Decarbonization Approach[1] to calculate our science-based targets, our absolute emissions from transportation are expected to decrease slightly until 2031. After this point, it is assumed that technological advancements will allow us to implement zero-emissions logistics and achieve our net-zero ambition by 2040.

If we continued to operate "business as usual" (BAU) as we grow our business, we would expect our carbon footprint to increase proportionately. Therefore, to reach our near-term science-based target of a 17% absolute reduction in Scope 3 material emissions associated with transport by 2031 we are committed to an actual reduction of these emissions by 34% when compared to BAU calculations.

Key activities around transport

- Benefit from future engine efficiency, working with partners with more advanced, fuel-efficient fleets.
- Max out intermodal transportation opportunities, such as rail and sea freight, particularly in North America.
- Maximize the use of truck space to further optimize vehicle loading capacity, reducing trips and enabling more RPCs to be moved per trip.
- Improve network efficiencies as the business grows, by implementing new supply chain nodes that will minimize transport distances and reduce GHG emissions as a result.
- Benefit from fleets that use alternative fuels, including electricity, green hydrogen, or biofuels such as hydrotreated vegetable oil.
- Standardize product portfolio and streamline operations to make our pooling model even more efficient.

IFCO emissions in $ktCO_2e$

Scope 3 - Category 4: Upstream transportation and distribution

FY21 BASELINE	FY31 TARGET	ABSOLUTE EMISSIONS REDUCTION TARGET	ACTUAL EMISSIONS REDUCTION VS. BAU
232.2	221.7	-5%	-34%

[1] The Sectoral Decarbonization Approach (SDA) provides guidance in line with the best science currently available on setting GHG emissions reduction targets necessary to stay within a 2°C temperature rise compared to pre-industrial levels. As the SDA defines activity-specific metrics, this method helps reflect the different pace at which different sectors and economic activities decarbonize: https://unglobalcompact.org/library/5650

Our partners in the race towards Net Zero

The entire IFCO organization is fully on board with our commitment to decarbonize our supply chain. Through various internal initiatives, including working groups and R&D, we are firmly focused on achieving our ambitious goal to become a Net Zero business by 2040. We have the necessary governance in place and foster a climate-conscious approach to decision-making at every level of the organization.

To become a Net Zero business, it is imperative that we bring on board every stakeholder along our supply chain. Over 98% of our carbon footprint can be traced to Scope 3 emissions, meaning it is outside of our own direct control. But that does not mean it is entirely outside of our influence. Our Scope 3 emissions are Scope 1 or 2 emissions for our partners. It is therefore in our partners' own interest to collaborate with us to bring down our Scope 3 emissions as this will automatically lead to a reduction in their own Scope 1 or 2 emissions. When we work together, we all ultimately win together.

It will take innovative partnerships and collaboration along every step of the global fresh grocery supply chain to achieve our decarbonization goals. We have already identified key partners and projects involving RPC manufacturers, which have the greatest potential to make an impact and reduce our GHG emissions in line with the 1.5°C trajectory recommended in the Paris Agreement. We will continue to work closely with transport companies, service center operators, retailers, growers and governments. We will work with waste management service providers and service equipment manufacturers as well. This multilevel approach is the key to improving the IFCO SmartCycle pooling system and the best route to becoming a Net Zero business by 2040.

Quite frankly, we are not in a position to do this alone. We have made a strong commitment to decarbonization and are determined to step up effective measures to reduce material emissions at speed and scale. We hope this IFCO roadmap to Net Zero will inspire you to join forces with us.

Iñigo Canalejo

Iñigo Canalejo,
Vice President ESG

> “It will take innovative partnerships and collaboration along every step of the global fresh grocery supply chain to achieve our decarbonization goals.”

IFCO

Thank you for your interest in the **IFCO roadmap to Net Zero.**

We welcome your feedback – feel free to contact us at **sustainability@IFCO.com**

For more information, visit **IFCO.com**