



IKEA Climate Report FY24



In this report



Introduction letter	Page 3
Our climate agenda	Page 4
FY24 summary of progress	Page 5
The IKEA climate footprint throughout the value chain	Page 9
Materials	Page 10
Food ingredients	Page 15
Production	Page 17
Product transport & logistics services	Page 20
IKEA retail & other operations	Page 23
Co-worker commuting & business travel	Page 24
Home deliveries	Page 25
Product use at home	Page 26
Product end-of-life	Page 28
The IKEA air pollution footprint	Page 29
The IKEA climate roadmap	Page 31
Appendices	
Greenhouse gas inventory: scope 1, 2 & 3 emissions	Page 48
FY24 progress on external initiatives	Page 49
Climate footprint calculation methodology	Page 50
Air pollution inventory: emissions across the value chain	Page 53
Air pollution footprint calculation methodology	Page 54

About this report	
This report summarises our progress toward the commitments outlined in the IKEA climate agenda, which are an integrated part of the IKEA Sustainability Strategy . It showcases a selection of initiatives that reflect our commitment to making a tangible impact. It covers the entire IKEA value chain and franchise system and provides an update on activities and the ongoing work to measure progress. The IKEA Climate Report is issued by Inter IKEA Group. ¹ The reporting period follows the financial year 2024 (FY24), which runs from 1 September 2023 to 31 August 2024.	
To ensure the long-term growth and development of the IKEA business, we use a franchise system . This provides financial stability while allowing franchisees to challenge, test and explore new markets and ideas. Together, we continue to develop the IKEA Brand.	
"We" in this report refers to the IKEA business. The IKEA business is defined as the business activities performed by all companies operating within the IKEA franchise system.	
The IKEA value chain encompasses more than the IKEA business and includes sourcing and extracting raw materials, manufacturing, transporting of products, retail activities in stores, customer travel to stores, product use in customers' homes and product end-of-life.	
Please note that we review and update historical data for accuracy on an annual basis. These changes are updates to external reference data, improved calculation methodologies and data quality. Percentages in this report may not total 100% due to rounding differences.	
Methodology update in FY24	
While we outline the detailed FY24 methodology on page 50 , we want to highlight two key topics at the beginning of this report. First, because of the Science Based Targets initiative (SBTi) verification process of our net-zero goals, in June 2024, it was recommended that we exclude customer travel to stores from the mandatory net-zero inventory. As a result, we have revised our emissions data dating back to the FY16 baseline and highlighted the corresponding performance update in our greenhouse gas (GHG) inventory table on page 48 .	
Second, the climate footprint of materials – the largest portion of our footprint – and of food ingredients is currently based on estimates and manual calculations using the best available information, reliable proxies, and data at the time. For materials, these estimates reflect the split of recycled and renewable materials that we estimated in FY21 but do not yet fully capture the positive changes made in the business since then, such as increasing the use of recycled and renewable materials.	
We are focusing on improving accuracy and enabling more precise reporting. With ongoing digitalization of data collection, we aim to provide more accurate and comprehensive data in 2025. Following the publication of this report and in preparation for CSRD-compliant reporting from FY26, going forward, the sustainability reporting will undergo changes. The CSRD framework begins with a double materiality assessment, and based on the assessment of ESG topic materiality, future sustainability statements will be reported alongside financial data, analysing the impact of operations on people, the planet, and financial performance.	
Read the complete IKEA Sustainability Report FY24.	

¹ Inter IKEA Group consists of Inter IKEA Holding B.V. and all its subsidiaries. An overview of all Inter IKEA Holding subsidiaries can be found [here](#).

INTRODUCTION LETTER

Making progress on climate action

Our business direction is clear: we want to make IKEA more affordable, accessible and sustainable, especially for people with thin wallets. Last year, as part of this journey, we took two big steps – we lowered prices across all markets and made steady progress on our sustainability agenda.

2024 was another year of big global challenges: the continuing effects of climate change on people and nature, rising geopolitical conflicts, widespread economic pressures from inflation and higher cost of living.

Now more than ever, it's important to stay true to our vision of creating a better everyday life for the many people. We believe that a better life starts at home. During the year, we lowered prices on average by 10% across all 63 markets and worked hard on our sustainability agenda.

We are making good progress towards our climate goals and seeing positive signs that we can grow our business without increasing our greenhouse gas (GHG) emissions. In FY24, our total emissions were 5% lower than in the previous year (FY23) and 28% lower than in FY16 (our baseline year). This reduction from our baseline is mainly due to our increased use of renewable energy in production, logistics and retail, as well as improvements in energy efficiency

and the growing share of renewable electricity. However, lower production volumes during the reporting period also contributed to the reduction.

Since our baseline year FY16, relative emissions per produced volume have decreased by 9% in the upstream stages of our value chain (such as sourcing raw materials and manufacturing), and emissions per sold volume have decreased by 34% in the downstream stages (such as transportation, delivery, and product use). This highlights steady progress in reducing emissions relative to volumes, a positive step towards decoupling growth from emissions.

We continue to work hard on our material agenda, which accounts for the largest part of our footprint. In FY24, our materials footprint – still based on estimates – has decreased by 9% compared to our baseline. Work is ongoing to increase our share of recycled materials, use materials more efficiently, and develop products with a lower footprint. Some key movements from FY24 include maintaining the share of recycled wood, continued implementation of thin hot-rolled steel and the switch from paperboard to corrugated cardboard in packaging.

We are also working to improve traceability for both primary and recycled raw materials by partnering with suppliers to more accurately measure and follow up our progress. This is essential to ensure responsible sourcing and understand emission

reduction opportunities at every stage of our value chain, including actions we can take to reduce negative impacts on biodiversity and water.

In June, our net-zero goals were validated by the Science Based Targets initiative (SBTi). We are now, for the first time in this report, sharing our climate roadmap for FY30. This roadmap provides an overview of the key actions needed across each part of the value chain to halve emissions by FY30 and marks the first step toward a more comprehensive transition plan.

We see a clear business case for change. By driving innovation in materials and production processes, increasing efficiency and reducing waste, we can lower emissions while also reducing costs – for our business and our customers – when implemented at scale.

Many solutions are already available, offering a real opportunity to transform society for the better. While business has a key role to play, the transition to a net-zero society requires a multi-stakeholder approach. Governments are essential in creating the right conditions, from renewable energy infrastructure to circular economy systems. With countries set to submit their ten-year Nationally Determined Contribution (NDCs) by February 2025, we are hopeful for clear sectoral plans from governments, which will enable scaling up renewable energy, electrifying industries

and transport, adopting circular solutions, and protecting and restoring nature.

We understand the challenges but continue to be optimistic. We are committed to doing our part to support a just transition towards a net-zero world by staying true to our vision, making sustainable living affordable for as many people as possible.



Jon Abrahamsson Ring
Chief Executive Officer, Inter IKEA Group

Our climate agenda

In FY24, we introduced our strengthened climate agenda, Net Zero and Beyond, focusing on three key areas:

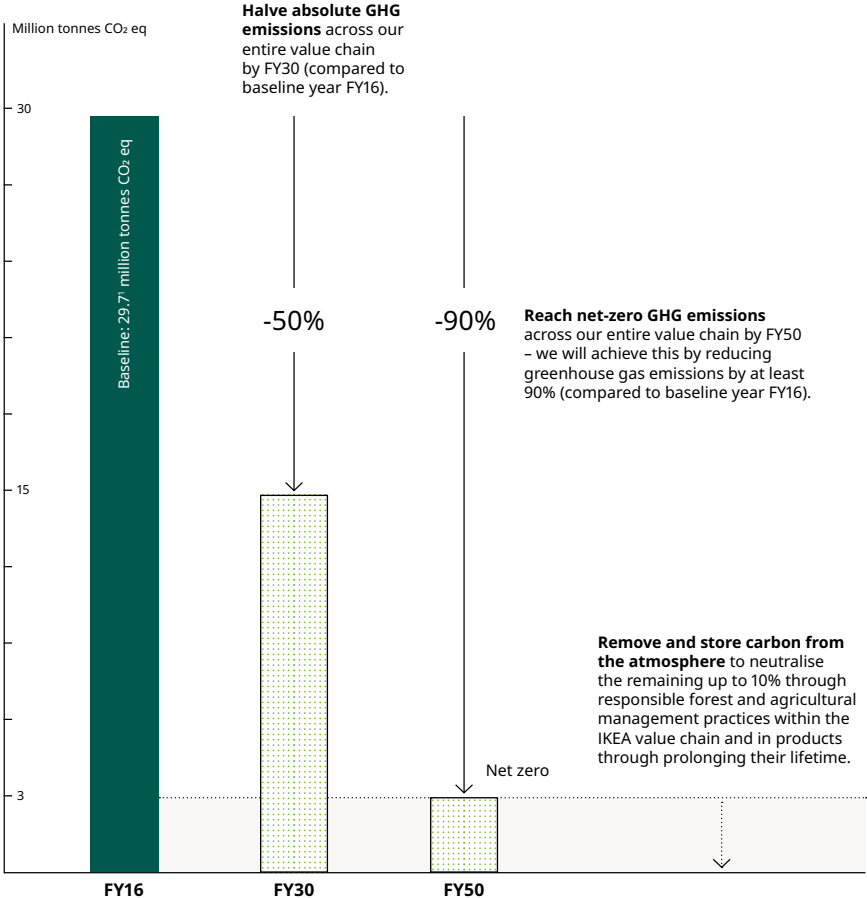
1. Reducing GHG emissions across the IKEA value chain, in absolute terms

The primary focus is to halve emissions across the IKEA value chain by FY30 (compared to baseline year FY16) and achieve net-zero emissions by FY50 at the latest. Net zero will be achieved by reducing emissions by at least 90% on an absolute basis (compared to FY16). The remaining 10% of emissions will be neutralised through removing and storing carbon within our value chain.

2. Removing and storing carbon from the atmosphere through forestry, agriculture and products within our value chain

We work towards removing and storing carbon from the atmosphere through responsible forest and agricultural management practices within the IKEA value chain and within our products. Efforts to transition towards a circular business and to prolong the life of IKEA products will ensure that carbon remains stored longer in them.

We are working towards setting goals for removing and storing carbon in forestry and agriculture.



The IKEA net-zero goal – reducing GHG emissions across the IKEA value chain, in absolute terms and removing and storing carbon from the atmosphere through forestry, agriculture and products within our value chain.

3. Going beyond IKEA

"Going beyond IKEA" means actions taken that don't directly count towards reducing our climate footprint and our net-zero goals. These include investments, advocacy, and leading initiatives with a long-term view of the future, linked to our value chain.

For example, we will work towards driving broader emission reductions and support a just transition by partnering with communities, policymakers, and other societal stakeholders. By sharing our resources and expertise, we aim to accelerate climate action and influence policies to scale renewable energy, electrify industries, adopt circular solutions, and protect nature – all aligned with the science of 1.5°C.

¹ Historical figures are revised only if data quality or calculation methodologies improve.

FY24 SUMMARY OF PROGRESS

1. Reducing GHG emissions across the IKEA value chain, in absolute terms



In FY24, the IKEA climate footprint is estimated to be 21.3 million tonnes CO₂ equivalent (eq) in absolute terms, which is a decrease of 5% compared to FY23, and 28% lower compared to the baseline FY16. The reduction in FY24 was attributed to the continued increase in renewable energy, a focus on energy efficiency, movements towards electrification of transport but also lower production volumes.

Materials used in IKEA products account for the largest part of our climate footprint. In FY24, the emissions from materials used decreased by 2% compared to FY23. While the footprint of materials is still based on estimates, work has been ongoing to increase the share of recycled materials, use materials more efficiently, and develop products with a lower climate footprint.

Product use at home represents the second-largest portion of the IKEA climate footprint. Compared to FY23, we saw an emissions reduction of 4% in FY24. The reduction is partly attributed to a 2% improvement in energy efficiency (lumen per watt) of the lighting range. The climate footprint of IKEA home appliances used by customers at home decreased by 9% in FY24 compared to FY23. A reduction in sales quantity (pieces) of lighting and appliances also contributed to the decreased product use at home footprint.

Food ingredients emissions decreased in FY24 by 6% compared to FY23. We continued to work towards increasing the share of plant-rich food and reducing red meat. We estimate that 36% of the main meals offered in the IKEA stores operated by Ingka Group, the largest IKEA franchisee, were plant-based in FY24, compared to around 30% in FY23. We expanded our plant-rich offer in FY24 – one example was PANNBIFF, the 50% plant based and 50% minced beef product launched in Sweden.

In **production**, the climate footprint decreased by 21% in FY24 compared to FY23. The renewable electricity share increased from 71% in FY23 to 75% in FY24, while the renewable energy share rose from 48% to 52%. The increase in renewable energy is mainly driven by the FY25 movement towards 100% renewable electricity use in 13 key countries. These countries represent our biggest markets in terms of electricity use in production, and where we have implemented a supplier renewable electricity programme. A total of 93 additional factories or suppliers achieved 100% renewable electricity in FY24, bringing the total to 491, which constitutes 44% of our direct suppliers.¹ Lower production volumes during the reporting period also contributed to the decrease in emissions during FY24.

¹ Includes home furnishing, components and media print suppliers but excludes food suppliers.

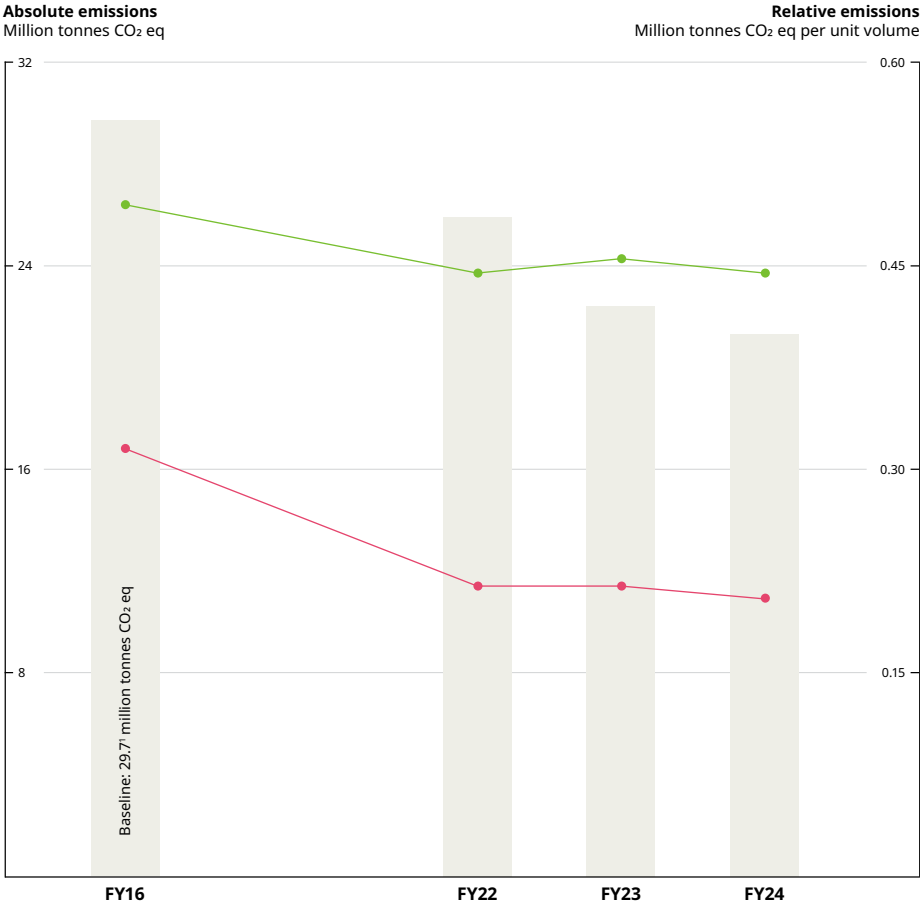
Product transport emissions improved in FY24 despite higher shipping volumes. While transport activity increased by 9% (in tonne-kilometres), we reduced absolute emissions by 0.2% and relative emissions by 9% compared to FY23.

In **IKEA retail and other operations**, the share of renewable energy increased from 67% in FY23 to 71% in FY24, including an increase in renewable electricity from 77% to 81%.



The IKEA climate footprint in both absolute and relative terms

The graph to the right shows our total value chain emissions reduction compared to our baseline year and year-over-year reductions for the past three financial years, measured in million tonnes of CO₂ eq. It shows our absolute emissions reductions as well as our relative upstream and downstream emissions reductions in the same period. Measuring relative emissions helps us understand efficiency improvements in the upstream and downstream parts of our business.



Absolute emissions

The grey bars represent the absolute emissions from all parts of the IKEA value chain. In FY24, we saw an estimated year-over-year reduction of 5% in total emissions. This is an estimated 28% reduction compared to our FY16 baseline.

Upstream relative emissions

The green line illustrates upstream emissions measured per cubic meter (m³) of production. Our upstream supply chain emissions include materials, food ingredients, production and product transport and logistics services. In FY24, we saw an estimated reduction of 6% in emissions per m³ produced compared to FY23. This is an estimated 9% reduction compared to our FY16 baseline.

Downstream relative emissions

The red line illustrates downstream emissions measured per m³ of sales. Our downstream emissions include retail operations, co-worker commuting and business travel and home deliveries, product use at home and product end-of-life. In FY24, we saw an estimated reduction of 3% in emissions per m³ sold. This is an estimated 34% reduction compared to our FY16 baseline.

¹ Historical figures are revised only if data quality or calculation methodologies improve.

2. Removing and storing carbon from the atmosphere through forestry, agriculture and products within our value chain

In FY24, we conducted detailed business-consequence analyses to explore different approaches for setting near- and long-term carbon removal goals, focusing on forestry and agriculture. Our goal is to finalise our approach in FY25.

In 2019, we allocated EUR 100 million to invest in carbon storage and removal projects. One such project is our ongoing engagement with smallholder farmers in Vietnam to prolong acacia rotation. Since 2022, the IKEA business,

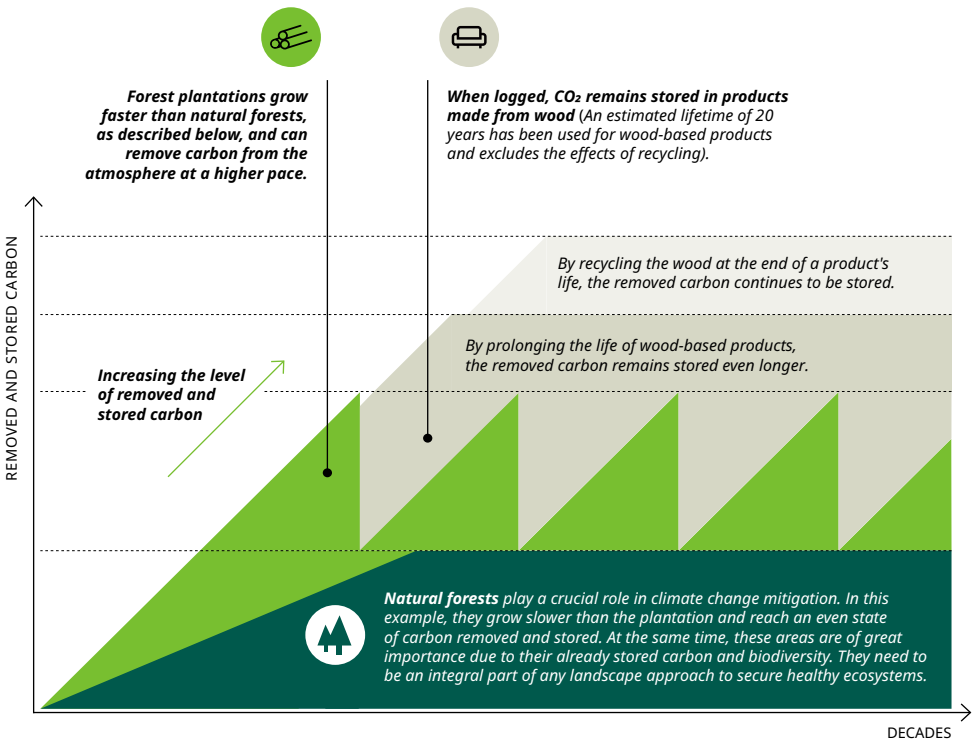


together with a smallholder cooperative, has been working in Hue, Central Vietnam, implementing and promoting responsible acacia forest management on 1,100 hectares.

We are also working closely with the Agricultural University in Hue to measure soil organic carbon impacts on more than 100 sites. In the summer of 2024, university researchers also conducted around 80 in-person interviews with the aim to assess the impact of responsible acacia forest management on the farmers' livelihoods and their perception of the project. Preliminary findings suggest that longer-rotation acacia management not only increases farmers' incomes significantly but also promotes higher levels of soil organic carbon storage compared to traditional practices. These responsible practices enhance carbon sequestration by allowing the acacia forests to mature, resulting in greater biomass accumulation and healthier soil.

During FY24, we also began to evaluate the potential of regenerative agriculture practices¹ to enhance biodiversity, improve soil health, and contribute to carbon removal and storage. Additionally, we piloted regenerative agriculture practices for beef, cotton, and wool and began assessing how these practices could be applied to coffee.

¹ Regenerative agriculture practices are farming methods designed to restore and enhance the health of ecosystems, particularly soil. These practices aim to increase biodiversity, improve water cycles, and sequester carbon, contributing to more sustainable and resilient food systems.



Above is a simplified model illustrating an example of removing and storing carbon through the establishment of fast-growing tree plantations plus restoration of natural forests on degraded land, including the effect of prolonging the carbon storage through wood-based products and recycling. Trees from responsibly managed forest plantations absorb substantial amounts of carbon dioxide (CO₂) from the atmosphere. When trees are made into wood-based products, they act as temporary carbon storage. This storage effect can be extended through reuse, refurbishment, remanufacturing and recycling of the material at end-of-life. In resilient landscapes, the contribution of responsibly managed forest plantations towards climate change mitigation has to be considered together with the many contributions of natural forests. These contributions include aspects such as biodiversity and soil protection, for example. A holistic view, where we balance forest growth, harvest, carbon storage in land and products and other environmental services, such as biodiversity, is critical.

3. Going beyond IKEA

"Going beyond IKEA" means actions taken that don't directly count towards reducing our climate footprint and our net-zero goals. They include investments, advocacy and additional actions where impacts may only be apparent in the future. To secure their contribution to the transformation of the IKEA business, any actions taken under this umbrella must be connected to our value chain, such as our products, supplier base or sourcing area.

Some of the key initiatives from FY24 include:

Biofuels in ocean transportation

Achieving zero-emission shipping requires collaboration across the supply chain to deploy and scale up solutions with speed. The **book-and-claim system**¹ is an important piece of the puzzle for accelerating this transition in the ocean shipping industry. This system allows cargo owners to support zero-emission shipping, even if the clean fuels are not available on the specific route or ship their goods travel on. By paying for zero-emission fuels to be used elsewhere in the shipping network, cargo owners help fund the transition to cleaner shipping worldwide and help accelerate the availability of clean fuel across the industry.

By separating the environmental benefit from the physical fuel, the system enables cargo owners to signal a demand for sustainable fuels, helping to de-risk investments and scale up their production. It also addresses initial logistical challenges, such as carriers struggling to match demand with routes that offer fuel bunkering. We view the book-and-claim system as a temporary solution, bridging the gap until zero-emission fuels become widely accessible for global shipping.

Whenever the book-and-claim system is used in our transportation, we exclude it from our net-zero goals scope because the ships carrying IKEA cargo do not physically use the underlying zero-emission or low-emission fuels.

In FY24, we avoided 49,164 tonnes of CO₂ in ocean shipping by using biofuels. Compared to the previous year, we scaled up the use of biofuels by 95%.

We continue to monitor the GHG Protocol's Actions and Market Instruments working group for further guidance on the accounting for these market-based mechanisms.

Enabling investments towards a resilient net-zero society

In FY24, Inter IKEA Group invested in New School Foods, a Canadian start-up with a mission to speed up the transition to a lower impact food system by creating plant-based fish and other meat alternatives that deliver on taste, texture and price.

In FY24, Inter IKEA Group also became a key investor in Nordic SeaFarm, one of Europe's leading producers of sustainably farmed seaweed. The intent is to learn more about marine materials and how they can influence material development and applications in the future. We are continuously looking for innovative and renewable raw materials for potential use within our operations. With Nordic SeaFarm, we're exploring opportunities for aquaculture materials in applications like fibres for wood and fabric, as well as protective films and coatings.

Through our investments and explorations, we hope to not only have a meaningful impact on our climate goals but also inspire a larger societal movement towards more sustainable food and materials.

Partnerships and advocacy supporting a fair and resilient net-zero society

In FY24, we continued to drive progress towards a just and resilient net-zero society. At key global forums like COP29 and COP16 we advocated for the phasing out of fossil fuels, scaling up renewables, safeguarding nature, and integrating climate, nature, social, and health priorities into more ambitious Nationally Determined Contributions (NDCs).²

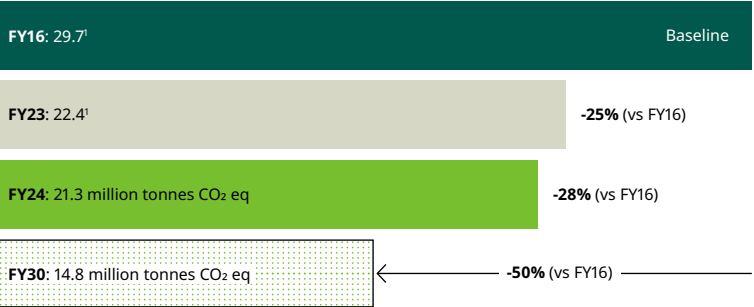
We also supported industry movements like the We Mean Business Coalition's Mission 2025, and demonstrated our support for the swift implementation of the Global Biodiversity Framework (GBF) through relationships and partnerships with Business for Nature (BfN), WWF, the World Business Council for Sustainable Development (WBCSD), and the Forest Stewardship Council (FSC). By participating in events such as the International Union of Forest Research Organizations (IUFRO) World Congress and World Water Week, we showcased actions supporting climate and nature while inspiring collective action.

¹ A book-and-claim system is a method used to certify the transfer of ownership of attributes, like renewable energy or recycled materials, without the physical transfer of the actual product by tracking and recording transactions in a registry.

² Nationally determined contributions (NDCs) are commitments that countries make to reduce their GHG emissions as part of climate change mitigation. These commitments include the necessary policies and measures for achieving the global targets set out in the Paris Agreement.

IKEA climate footprint

Performance vs. baseline FY16 (million tonnes CO₂ eq)



Goal FY30
Reduce by at least 50% in absolute terms compared to baseline FY16.

In FY24, the total IKEA climate footprint decreased by 1.1 million tonnes of CO₂eq in absolute terms compared to FY23 – a reduction of 5%. The reduction in FY24 was attributed to the continued increase in renewable energy, a focus on energy efficiency, movements towards electrification of transport and lower production volumes.

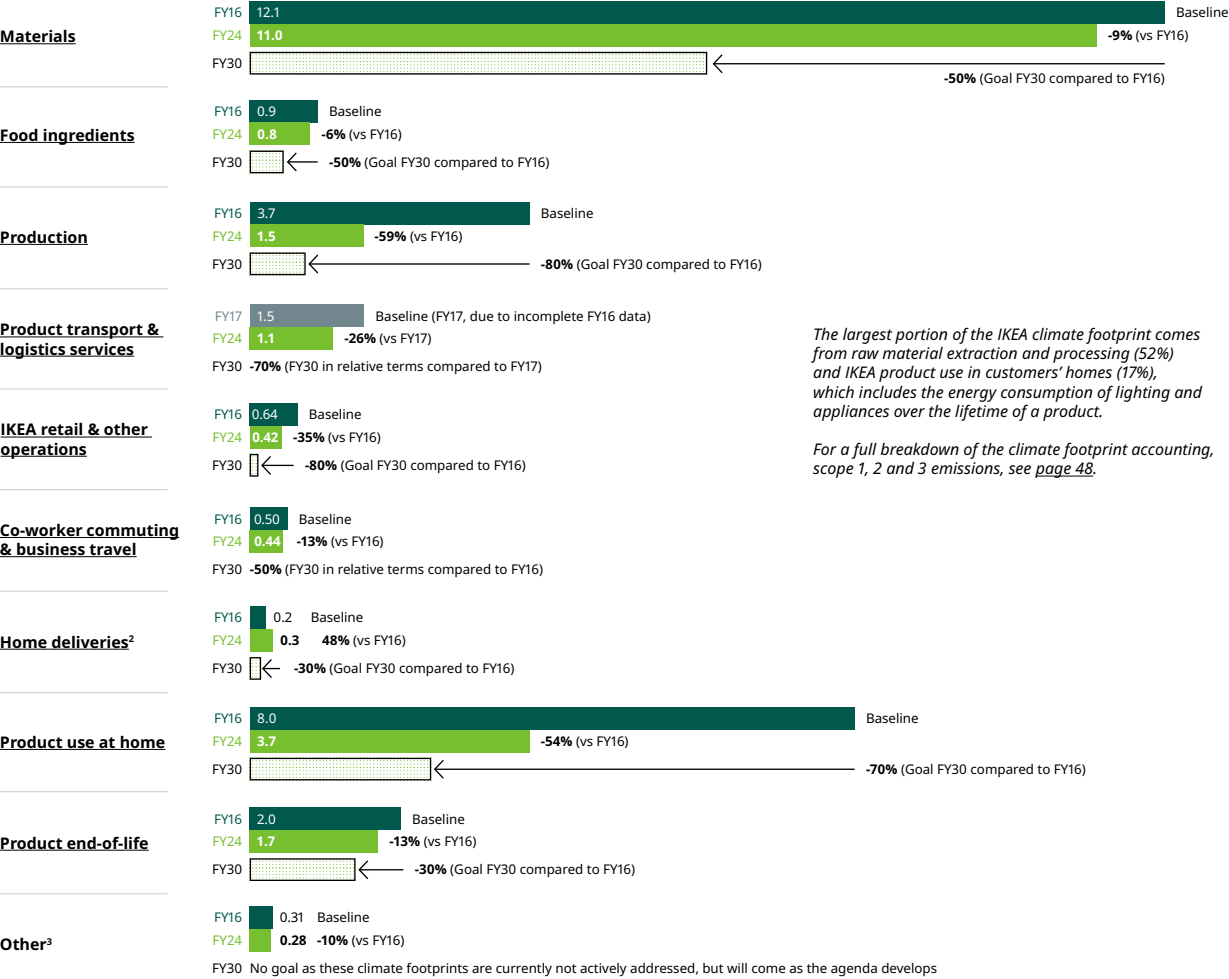
¹ Historical figures are revised only if data quality or calculation methodologies improve.

² In June 2024, during the SBTi Net Zero evaluation process, we adjusted our approach to align with the SBTi Net Zero methodology. As part of this, customer travel was excluded from our net zero inventory because SBTi does not consider it a mandatory emission category and classifies it as optional instead. Although these emissions are not shown in the graph above, customer travel increased by 1% in FY24 compared to FY23 but decreased by 18% compared to the baseline year, FY16.

³ Includes the climate footprints of capital goods, materials connected to retail equipment and co-worker clothing, and waste generated in IKEA operations.

Climate footprint at each stage of the IKEA value chain (million tonnes CO₂ eq)

FY16 FY24 Goal FY30 compared to baseline (FY16)



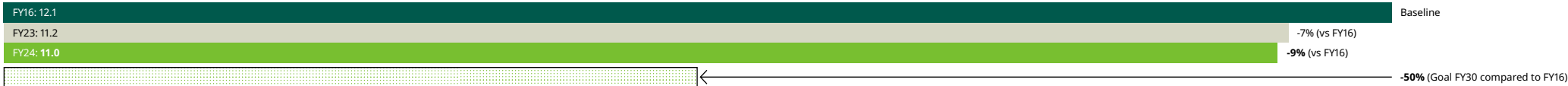
The largest portion of the IKEA climate footprint comes from raw material extraction and processing (52%) and IKEA product use in customers' homes (17%), which includes the energy consumption of lighting and appliances over the lifetime of a product.

For a full breakdown of the climate footprint accounting, scope 1, 2 and 3 emissions, see [page 48](#).

Materials

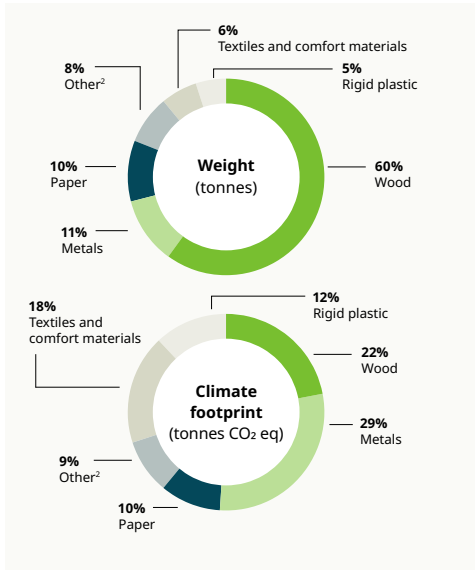
(52% of the total IKEA value chain climate footprint in FY24)

Climate footprint (million tonnes CO₂ eq)¹



Goal FY30

By FY30, reduce the absolute GHG emissions from materials by at least 50% compared to baseline FY16.



FY24 share of material weight (%tonnes) vs climate footprint (% tonnes CO₂ eq).

In FY24, the climate footprint from materials decreased by 2% compared to FY23 and 9% compared to the baseline FY16.

During FY24, we continued our efforts to increase the use of recycled materials, improve material efficiency, and develop products with a lower climate footprint. Key developments in FY24 include maintaining the share of recycled wood, the implementation of thin, hot-rolled steel and the switch from paperboard to corrugated cardboard in packaging.

Reducing the climate footprint of materials is part of our long-term development agenda and is steered by IKEA material directions and specific design directions in the choice of colour, material and finish. The material directions have, so far, helped us to identify actions that will enable us to reach most of the needed footprint reduction by FY30. The design direction establishes design principles for choosing materials in the product range that are in line with the material directions.

These roadmaps guide the planning of materials to be used in range development and support the implementation of material innovations as well as developments within the IKEA range.

The overall challenge of balancing affordability, accessibility, and sustainability remains. Moving towards more recycled content or using new innovative materials or technologies – such as, for example, the use of bio-based materials – can still initially affect the price, limiting the potential scale and impact. Even when affordable, sustainable materials exist, there can be limited access or difficulty in securing the traceability of the raw materials. Finding innovations and solutions that can be quickly deployed remains challenging, as many new materials and technologies are still in the research phase or require scaling up.

For more details on the actions we will take to achieve our emissions reduction target for materials, see the climate roadmap on [page 34](#).



¹ Scope: GHG Protocol, scope 3 emissions: Purchased goods and services – raw material extraction and transports occurring until the entry gate of tier 1 home furnishing, food (packaging only), components, and catalogue and print suppliers.
² Other: candles, ceramics, custom-made worktops, electronics, green plants, glass and natural fibres.

Wood-based materials



Wood is one of our most used materials because it's versatile, durable, renewable and possible to recycle. We use wood for particleboard, fibreboard, paper-based and solid wood products. It's a big part of our Swedish design heritage.

In FY24, 97% of our total wood used was either FSC-certified or recycled.¹ Through our forest agenda, we aim to improve the responsible use of wood even more. [Read more about the IKEA forest agenda 2030.](#)

The biggest contributors to the IKEA climate footprint for wood-based materials are particleboards and fibreboards. They represent around 60% of the wood-based materials footprint, and most of those emissions are connected to energy use and glue.

The IKEA business continues to move away from Medium Density Fibreboard (MDF) to alternatives, such as particleboard and hollow core board, to lower emissions without compromising on the quality, safety or aesthetics of the product.

Movement towards more recycled wood

Our ambition is that at least one-third of the IKEA wood-based range will be made from recycled wood, by 2030. During FY24, we maintained the level of recycled wood (16%) and increased the amount of recycled content in both particleboard (from 30% to 30.3%) and fibreboard (from 0.3% to 1%).

Fibreboard is a key material for IKEA furniture, but its recyclability remains a challenge. While we've seen a minor increase in recycled content in FY24, further innovation is required to find solutions. We're working intensively to accelerate development through investments and pilots.

IKEA Industry has set up a fibreboard-to-fibreboard recycling line in Zbaszynek, Poland, primarily producing SKÅDIS storage boards. This project has been a key proof point for the potential of recycling and has influenced investment decisions among other board manufacturers within the IKEA supply chain.

In FY24, we continued our efforts to increase the share of recycled content in particleboard towards our goal of 80% recycled content by 2030. At our suppliers in Italy, the share of recycled content in particleboard reached 100%, and at IKEA Industry in Hultsfred, Sweden, where PAX particleboard is produced, the recycled share rose from 10% to 30%.

Glues

Following the breakthrough with bio-based glues announced in FY23, we have expanded their use in our IKEA Industry factories in Kazlu Ruda, Lithuania, and Zbaszynek, Poland. In FY24, we tested various alternative glue systems through large-scale factory trials with IKEA Industry and external board suppliers, to identify the most suitable options.

We have also started to evaluate green building blocks, such as bio-methanol, and plan to start implementation within existing fossil-based glues during FY25. By implementing and communicating our use of bio-based glues, we have seen significant changes in the wider fossil-based glue industry.

Resource efficiency – spray coatings

In FY24, we explored alternatives to spray coating for lacquers, which can result in significant waste due to overspray and low efficiency. One promising solution that's been identified is the use of soft rollers, which allow for roller coatings to be applied to most routed (3D) fronts, reducing the need for spraying.

¹ Due to the ever-changing business environment, the total percentage of FSC-certified or recycled wood can fluctuate to around 98%. But in all cases, IWAY forestry minimum requirements must be met.

Metals

Metals offer durability and cost-effectiveness while also supporting long-lasting product designs. Our main use of metals is in home furnishings such as mattresses, sit/stand tables, chairs, cooking products, and components like fittings.

Metal materials are infinitely recyclable, meaning the recycled material is not downgraded or of a lower quality than virgin materials. The recycling supply chain is also well-established in many countries, with rapid development in others.

As producing metals often have a high carbon footprint due to energy-intensive production processes, it is essential to prioritise the use of metals produced with lower emissions.

There are several ways to reduce emissions in steel production, with the most established method being the use of scrap. However, due to the high demand for steel scrap, its availability is insufficient to meet the current global demand. As a result, we are also pursuing the use of steel produced with innovative methods that significantly reduce the use of fossil materials in the production process, with the aim to achieve a much lower climate footprint compared to conventional steel production.

Making better material choices during the product development process is another way to reduce the climate footprint of metals. This approach ensures selecting the right metal for the right application, such as opting for carbon steel over stainless steel whenever feasible, developing more-from-less solutions, and optimising material use in production.



➔ Optimising production techniques to reduce GHG emissions

In FY24, we introduced thin, hot-rolled steel in the production of several products, such as drawer roller slides. This new approach reduces the number of processing steps required to produce the steel, leading to a decrease in GHG emissions.

Another example of our efforts in FY24 is the VITVAL bunk bed, where similar optimisations have led to CO₂ reductions.



➔ Less material used for the same functions

The MITTZON sit/stand desk now uses high-strength steel instead of regular steel for some components, allowing for thinner, lighter materials without sacrificing quality. This material reduction also lowers GHG emissions.



➔ Increasing the share of recycled materials

We have reached a minimum of 70% recycled aluminium content in products such as PAX fronts and LINDBYN mirrors – products that reach a wide range of customers. The BRUKSVARA clothing rack now consists of 50% recycled steel and the FÖRNUFT cutlery range now includes a minimum of 70% recycled stainless steel.

Textiles and comfort materials



The textiles and comfort category includes home textiles like bed linens, curtains, rugs and towels, as well as comfort materials used in sofas and mattresses.

Textiles and comfort materials are essential for our products, but have a substantial climate impact due to their resource-intensive growing practices, production processes, and petroleum-based chemicals in synthetic fibres and foam. Even though recycling and reuse infrastructure for textiles is established, material blends and loss of quality in the recycling process make it challenging to switch towards recycled options.

To address these challenges, we prioritise the use of materials with a lower carbon impact such as bast fibres and recycled cotton, recycled fibres like polyester, and cotton alternatives like man-made cellulose.

Making better material choices during the design and development process is essential for reducing the climate footprint of textiles and comfort materials. This involves replacing emission heavy materials with more responsible alternatives and pursuing innovative solutions.

For example, foam has significant climate impact due to its reliance on petroleum-based chemicals, which contribute to greenhouse gas (GHG) emissions throughout its production, use, and disposal stages. Additionally, traditional foam production often involves energy-intensive processes and can result in waste products which can negatively impact the environment. By focusing our work on how we can improve processes for recycling foam and find alternatives we can reduce our overall climate impact.

Recycled polyester

In FY24, we continued to explore textile-to-textile recycling of synthetic materials, with the aim of reducing our dependency on PET bottles as feedstock. In development with our supply chain partners, we have successfully recycled pre-consumer PET textile waste, incorporating it into the Global Recycled Standard (GRS)¹ certified HILLEBORG

and MAJGULL black-out curtains, launched in April 2024 in EU markets.

Recycled cotton

We define recycled cotton as cotton recovered from cotton wastes, like yarns, fabrics and garments, sourced according to the GRS. In some IKEA products, recycled cotton is used together with virgin cotton. The ÄNGSLILJA and BERGPALM bed linens, for example, consist of 20% and 12% recycled cotton, respectively. And since July 2024, the INDIRA bedspreads have included a minimum of 40% recycled cotton (in a number of markets).

Another movement is finding alternatives which have a lower climate footprint compared to virgin cotton, such as cellulose or natural fibres, such as bast fibres. Cottonised jute, for example, is being used for products in the table setting range, like SILVERARV.

Foam

We continue to explore and increase the use of recycled and renewable content in polyurethane foam, a key material used in products like mattresses, sofas, chair pads and pillows. To meet our ambition, we're investing in recycled and renewable solutions for our entire mattress range. In FY24, we successfully reduced the overall foam consumption in mattresses by 20% by using alternative comfort and design solutions. As part of investing in recycled and renewable foam, we ran

a pilot in Europe for a foam mattress using more recycled content (10% recycled foam, of which 35% is repolyol).

We are also testing sorting technology to detect and remove foam contaminated with flame-retardant for recycling. This could expand our use of recycled polyol in the future and reduce the potential for flame retardants circulating in new products.

Since foams made with recycled or renewable content match the performance of conventional foams, we can partially integrate them into existing products without requiring additional product development. Alongside switching conventional foam to recycled or renewable options, we're also investigating alternative materials. Replacing polyurethane foam varies in difficulty depending on its role and application within each product due to its unique properties.

Thermo-bonded felt

In FY24, we piloted a foam-less sofa, aiming for alternative comfort solutions and using our circular design principles. Instead of foam, this sofa uses thermo-bonded felt made from fabric waste including mixed fibres and blends, from IKEA production waste and other used textiles.

¹ GRS is a voluntary product standard for tracking and verifying the content of recycled materials in a final product.

Plastics

Plastics are found in applications throughout the IKEA offer – from furniture and electronics to fittings and packaging material.

We continue our journey to phase out virgin plastic, increasing the share of recycled plastics and finding new solutions to use plastic material in the most efficient way (and only using plastic for relevant applications). There's currently a strong focus on plastic recycling, but multiple standards and a lack of consensus exist regarding the definitions of pre- and post-consumer waste and what qualifies as recycled content. We're updating and clarifying our internal requirements, working with external stakeholders to secure alignment across the industry and between legislative frameworks. We continue to evaluate and strengthen our traceability efforts to validate supplier certification and accelerate development across the sector.

We firmly believe that joint efforts are essential to address plastic waste issues globally. In 2023, we joined the Business Coalition for a Global Plastics Treaty. The coalition is convened by the Ellen MacArthur Foundation and WWF with the aim to support the development of an ambitious, effective and legally binding UN treaty to end plastic pollution. As negotiation continues, we have joined forces with 21 CEOs, signing a letter of support for the treaty and calling for harmonised policy and strengthened national legislation that could help businesses scale proven solutions for priority sectors such as packaging.



→ Recycled polypropylene

We have successfully completed a series of tests to increase the share of recycled material in our iconic FRAKTA bag and plan for a stepwise implementation in our FRAKTA family starting in 2025.



→ Optimising design to reduce material use

One example of design optimisation is the redesign of the SMÄCKER cutlery tray. By redesigning the form, we can now produce a tray of the same quality and function using 15% less material. The new design has also made it possible to stack 10% more trays on a pallet, increasing efficiency in transportation and distribution.



→ New paper packaging replacing plastic

In our journey to phase out plastic packaging, SMÅSPORRE is one example where we have implemented a paper-based solution. After extensive testing in FY24, SMÅSPORRE now comes in paper wrapping instead of plastic. The focus was on creating an alternative to plastic that would work using the existing machinery and automated production. The new solution reduces our reliance on plastic, and uses paper from a Scandinavian mill powered by renewable energy.



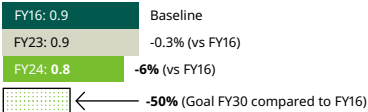
→ Paper-based fittings bags

We are moving towards paper-based bags for furniture fittings in our packages. This will help us cut down our plastic consumption by an estimated 1,400 tonnes per year. We have been developing the concept, material, and machine capability for several years and started to deploy the bags at the beginning in FY24.

Food ingredients

(4% of the total IKEA value chain climate footprint in FY24)

Climate footprint (million tonnes CO₂ eq)¹



Goal FY30 (updated)

By FY30, reduce the absolute GHG emissions from food ingredients by at least 50% compared to baseline FY16.

Sub-goal

Sub-goals 2025: 50% of main meals offered in the restaurants will be plant-based.²

In FY24, the climate footprint from food ingredients decreased by 6% compared to FY23 and the baseline year, FY16. This is an improvement from FY23, when the footprint decreased marginally by 0.7% compared to FY22 and 0.3% compared to FY16.

The IKEA food sourcing business is undergoing a transformative change. We are gradually moving the local sourcing from our franchisees to centralised sourcing by Inter IKEA Group. This transformation will enable Inter IKEA Group to oversee the entire food business, including Swedish Food Markets and restaurants, achieving economies of scale and ensuring consistent, responsible sourcing practices to reduce the impact on climate and nature from food ingredients.

In FY24, we continued to work towards increasing the share of plant-rich food. 36.4% of the main meals offered in the restaurants at IKEA stores, operated by our largest franchisee, Ingka Group, were plant based, compared to around 30% in FY23.

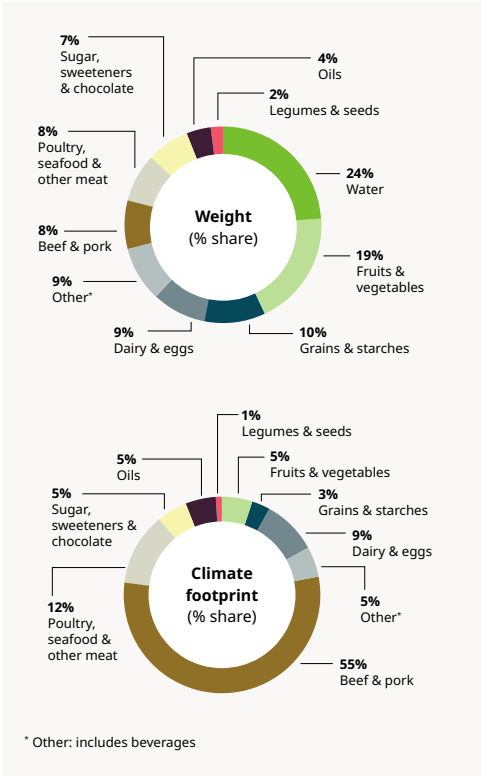
We recognise the importance of shifting towards plant-rich diets as a vital step in addressing greenhouse gas (GHG) emissions. Our efforts have focused on minimizing the climate impact of our beef and pork-based food offerings, which account for over half of our total GHG emissions from food ingredients, while also increasing the availability of plant-rich food offerings.

We also recognise the impacts that arise from how food is grown, and we continue to work with partners in the supply chain to lessen those impacts.

For information about food in our supply chain, see the [FY24 IKEA Sustainability Report](#).

Our aim is to offer a delicious and affordable food range that supports healthy and sustainable eating.

For more details on the actions we will take to achieve our emissions reduction target for food ingredients, see the climate roadmap on [page 36](#).



Share of material weight (% tonnes) vs. climate footprint (% tonnes CO₂ eq).

¹ Scope: GHG Protocol, scope 3 emissions: Purchased goods and services – raw material extraction and processing of food ingredients up until the entry gate of tier 1 food suppliers.

² In May 2024, the IKEA definition of "plant-based" was updated to better align with the ongoing work with the global industry standard definition. Following this update, we now define "plant-based" as foods derived from plants and fungi rather than animal sources. To sustain continuity and comparability in reporting, the sub-goal of "50% of main meals offered in the restaurants to be plant-based" from FY21, will be based on the previous definition of plant-based until the end of 2025 where meals can include up to 10% animal-produced ingredients, such as dairy, eggs, and honey.

³ The IKEA business defines "plant-rich" as a meal/dish that is at least 75% plants, qualified as foods, whose ingredients are derived only from plants and the remaining 25% can contain any animal-derived ingredient.

⁴ The numbers for food ingredients is currently based on estimations and manual calculations using the best available information, reliable proxies, and data.



Responsible agriculture

We're exploring regenerative agriculture practices, which focus on soil health, biodiversity, and carbon capture. Our pilot programmes include no-till farming, crop diversification, cover crops, and livestock integration. These practices help us understand the benefits of improved soil health, reduced pesticide use, better water retention, and improved biodiversity. We're also examining their financial impacts on yields, costs, and farming communities.

During FY24, we continued to run the pilots developed during FY23 for grass-fed beef in the USA. As a result, we are continuing to explore

setting up supply chains connected to grass-fed beef. This will enable us to better align and verify methods connected to GHG emissions, biodiversity, soil health, water, as well as animal welfare and community wellbeing. We have expanded the work with all our major supply partners to further understand our GHG footprint, which will enable us to make sourcing improvements. For example, shifting towards more regional sourcing for beef which can reduce transportation emissions and support local ecosystems. We are also working with suppliers to investigate resource-smart feeding methods and improve manure management.

Expanding our plant-rich food offer

In FY24, the plant-based hot dog, a hot dog made from plant-based ingredients, was introduced to new markets, including the USA, following its initial launch in 14 European markets in FY23.

Following development during FY24, we also launched a plant-rich rice and vegetable mix dish in January 2025, sold at a recommended and affordable price of EUR 1.99, making it accessible to more people in our restaurants.

In Sweden, a hybrid product named PANNBIFF was introduced in FY24. This innovative patty, where the protein is 50% minced beef and 50% plant-based sourced locally from yellow peas, reimagines the traditional Swedish dish. PANNBIFF has quickly climbed to the sixth spot in sales¹ at IKEA Sweden.

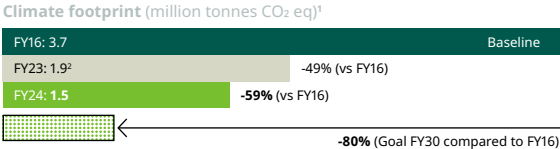
Offering more plant-rich options at a lower price than meat alternatives is one of the ways we are making plant-rich choices more appealing, inviting more customers to choose them over traditional animal protein-based options.



¹ Sixth most sold item in Main Courses PA (14th May – 31st August 2024)

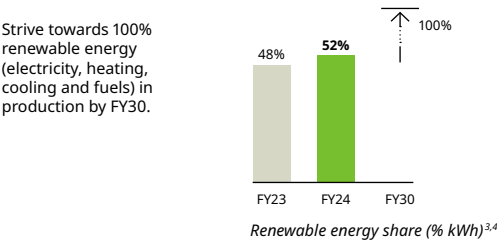
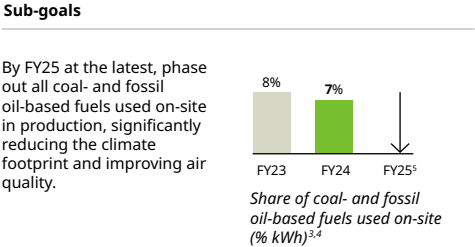
Production

(7% of the total IKEA value chain climate footprint in FY24)



Goal FY30

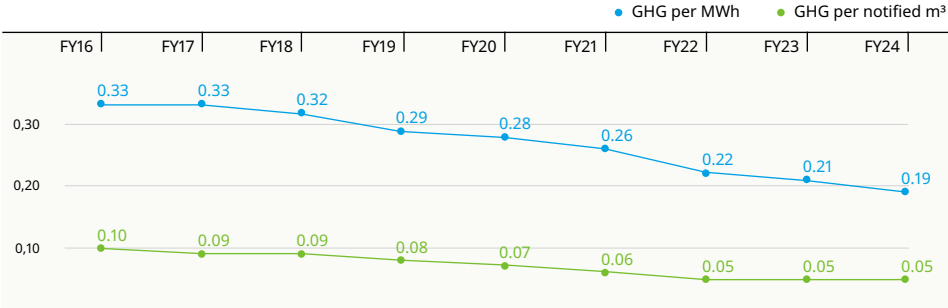
By FY30, reduce the absolute GHG emissions from production by 80% compared to baseline FY16.



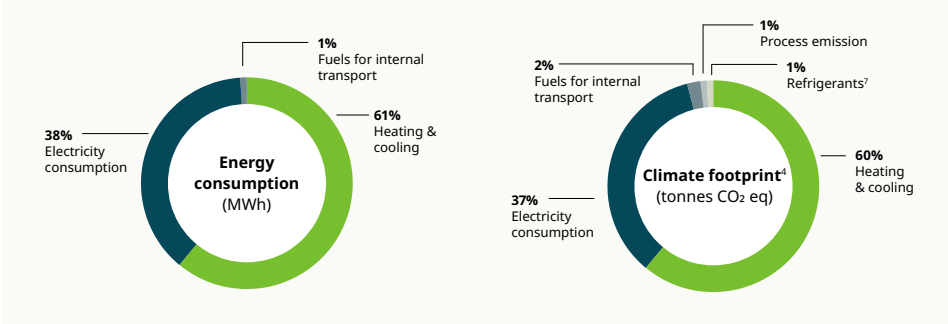
In FY24, the climate footprint from production decreased by 21% compared to FY23. Compared to the baseline FY16, we've seen a reduction of 59%.

In FY24, we saw progress compared to FY23 with increased use of renewable energy and electricity in production. However, a large portion of the reduced climate footprint is due to lower volumes and lower commodity prices in 2023 compared to 2022.⁵ To isolate the volume fluctuations and more clearly see our improvements, we use an intensity perspective. From a carbon intensity⁶ perspective in greenhouse gas (GHG) emissions per megawatt-hour (MWh), we saw a 9% improvement year on year (a 42% improvement since the FY16 baseline). In FY24, we also continued to see significant progress within IKEA Industry production sites towards our goal of reducing absolute GHG emissions by 80% by 2025 compared to FY16, achieving a 77% reduction in GHG emissions this year compared to the FY16 baseline.

For more details on the actions we will take to achieve our emissions reduction target for production, see the climate roadmap on [page 37](#).



Relative emissions overview for production



Production climate footprint vs. energy consumption.

¹ Scope: GHG Protocol, scope 3 emissions: Purchased goods and services – scope 1 & 2 emissions and connected scope 3: fuel- and energy-related activities (including transmission and distribution losses) of tier 1 home furnishing, food, components, and catalogue and print suppliers.

² Based on improved data collection with our food business during FY24, we made calibrations to the FY23 production figures.

³ To secure consistency with data reported by our external suppliers, data covers the calendar year 2023.

⁴ Excludes food suppliers due to breakdown in emission categories not available for these suppliers. Food production accounts for 6% of the total production footprint.

⁵ For production part of the value chain, we depend on data on a CY basis. FY24 performance reflects CY2023 data, while FY23 performance relied on CY2022 data.

⁶ Carbon intensity (tonnes of CO₂ eq per kWh used) is a measure of how many tonnes of GHG are emitted for every kilowatt-hour of energy consumed.

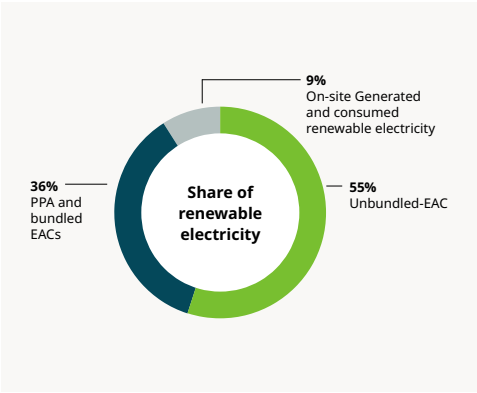
⁷ Refrigerants and process emissions do not consume energy.

Renewable energy

Renewable electricity

During FY24, we saw positive movements in the adoption of renewable electricity in our value chain. The share of renewable electricity in production increased from 71% in FY23 to 75% in FY24.

The IKEA renewable electricity programme for suppliers – launched in 2021 in China, India and Poland – continued during FY24. Encouraged by the response of the initial three countries, the programme was rolled out to a second wave of ten additional markets in FY23 and FY24.



Share of total renewable electricity purchased or generated/ consumed onsite

The most significant development in the Wave 2 markets was seen in Vietnam, where the renewable electricity share increased by 40 percentage points in FY24 compared to FY23, for a total of 84%. Strong results were also achieved in China and India, reaching 92% and 69% renewable electricity share, respectively, in FY24.

Compared to FY23, an additional 93 factories and suppliers have achieved 100% renewable electricity consumption, moving the total to 491, which constitutes 44% of our direct suppliers.¹

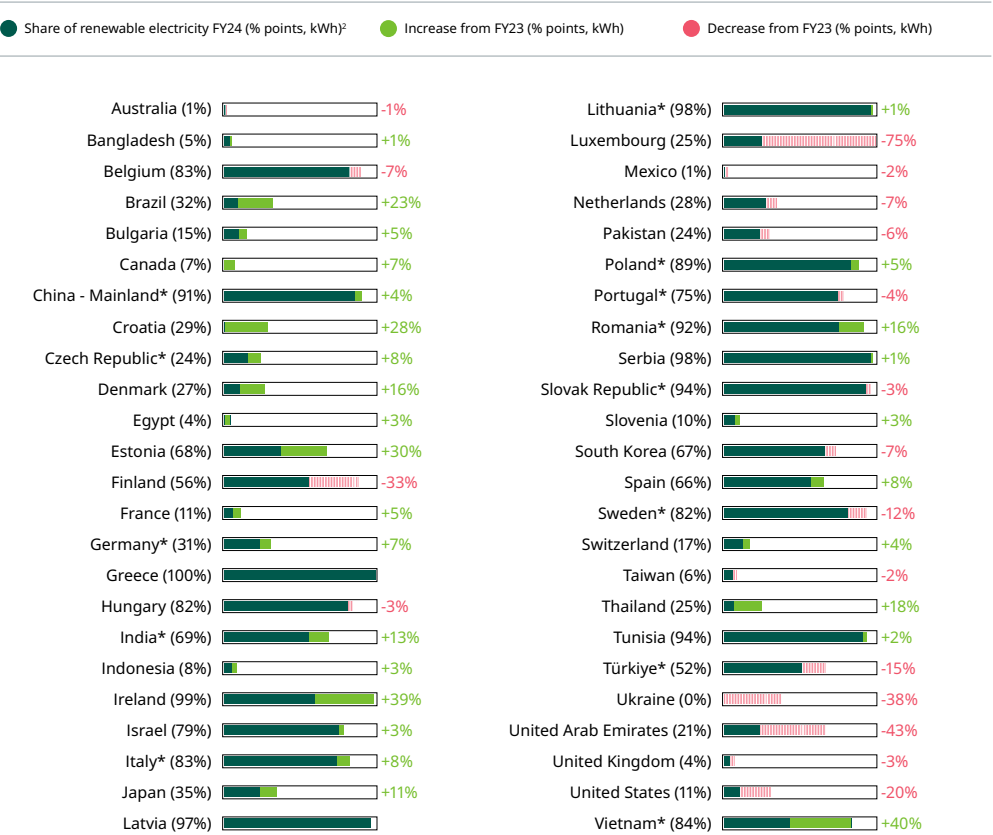
On-site renewable electricity

In terms of our renewable electricity sourcing strategy, we continue to encourage our suppliers to generate as much renewable electricity on-site as possible. In FY24, the amount of on-site renewable electricity generated and consumed increased to 9% from 6% in FY23.

Power Purchase Agreements (PPAs) and Energy Attribute Certificates (EACs)

For off-site renewable electricity needs, we encourage our suppliers to move towards wind and solar power purchase agreement (PPA) setups. For our smaller suppliers whose energy consumption needs do not fit the profile/requirements of a typical PPA setup, we are working towards facilitating aggregated PPAs. The biggest consumption of PPAs occurs in Poland at the IKEA Industry facilities. (Continues on next page)

¹ Includes home furnishing, components and media print suppliers but excludes food suppliers.



² The order of the countries is alphabetical and therefore does not represent the quantity of electricity consumed by suppliers in each of the countries.

* Part of renewable electricity programme

(Continued from previous page) One of our largest strategic stainless-steel suppliers accelerated plans for a wind turbine project. The project, initially planned in 2022, received government approval in August 2024 with construction to begin in FY25. Electricity generation from the wind turbines is expected to start in July 2025. The initiative is led and fully funded by the supplier, which independently invested in the project. The IKEA business had an advisory role, offering guidance on areas like financial risk analysis and investment plan evaluation.

Energy attribute certificates

As the infrastructure for PPAs is not mature in all the markets, bundled and unbundled energy attribute certificates (EACs) are being used as an interim measure. We have strict quality guidelines in place on which types of certificates are acceptable.

We will continuously strive to reduce risk from EACs and to monitor and review our approach in different sourcing countries as and when renewable energy policies develop.

We are also closely tracking the external scientific evaluation of Scope 2 energy attribute certificates (including the impending research study from SBTi) – especially on concerns around additionality – and we will integrate the findings within our future approach and strategy.

Renewable heating, cooling and fuels

In terms of heating, cooling and fuels, the share of renewable energy in production has increased from 35% in FY23 to 38% in FY24.

Some of the main developments leading to this increase include:

Continued phase-out of on-site coal for heating

The share of on-site coal- and fossil oil-based fuels in production decreased from 9% in FY23 to 7% in FY24.

While we have phased out the use of coal on-site at most of our supplier factories, we have offered a temporary exemption to seven suppliers and we will conclude the complete coal phase out by FY27.

Some examples of supplier actions in FY24 include:

- A textile supplier in India switched from coal to rice husks which led to savings of 26,000 tonnes of CO₂ equivalent (CO₂ eq).
- One of our top meatball and poultry product suppliers in the food category switched from coal to chicken manure.

Electrification of heating processes

- Several suppliers in China and Poland worked towards phasing out natural gas by deploying heat pumps.
- Carbon steel suppliers in China have been moving towards the use of infrared heating instead of natural gas.

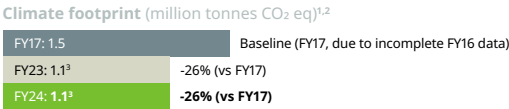
- One of the largest textile product suppliers in China opted for mechanical vapour recompression in wastewater treatment which saved 26,000 tonnes of CO₂ eq annually at the supplier.

While the phase out of coal on-site was the immediate priority, we are exploring ways to accelerate the phase out on off-site coal (starting with purchased steam).



Product transport & logistics services

(5% of the total IKEA value chain climate footprint in FY24)

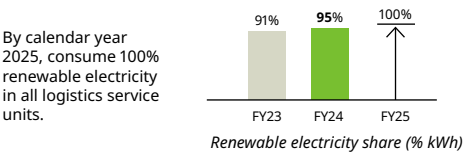
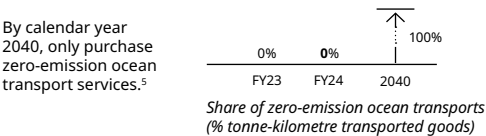
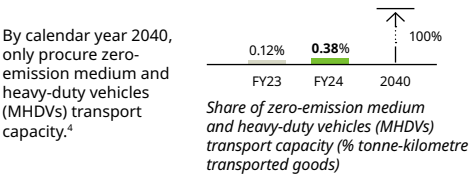


Goal FY30

By FY30, reduce the relative GHG emissions from product transport by 70% compared to FY17 (in terms of kg CO₂ eq per tonne kilometre transported goods).

By FY30, reduce the absolute GHG emissions from logistics services by 80% compared to FY19.

Sub-goals



In FY24, the climate footprint from product transport and logistics services decreased by 0.4% compared to FY23 (even though transported volume increased by 9%) and 26% compared to the baseline FY17.

The IKEA business is a large global shipper. In FY24, we made approximately 1.7 million shipments, generating one million tonnes CO₂ equivalent (CO₂ eq) of greenhouse gas (GHG) emissions.

In FY24, although transportation in tonnes-kilometres increased by 9% compared to FY23, our CO₂ emissions decreased in both absolute and relative terms. Absolute emissions decreased by 0.2%, and we see an even bigger increase in our efficiency and a reduction in relative emissions from product transport (CO₂ eq per tonne km transported) by 9% compared to FY23, and 29% compared to the baseline. The efficiency improvement stemmed from an increased supply chain efficiency (better equipment utilisation, deploying larger trucks,

optimising the network), as well as increased use of biofuels and electric locomotives. The average loading volume per shipment was increased during FY24, thereby avoiding 115,430 transport shipments. This led to both lower emissions and lower costs.

In FY24, we recalculated our emission baseline and previous years to be in accordance with the latest edition of the Global Logistic Emission Council (GLEC) framework, which was published in September 2023. The main change in the latest version is a significant increase in the regional emission factors for fossil fuels due to including the methane slip in the emission calculation. This restatement resulted in about an 8% increase in our absolute and relative CO₂ eq emissions – an adjustment we have made to our emission figures for transport between FY16 and FY24.

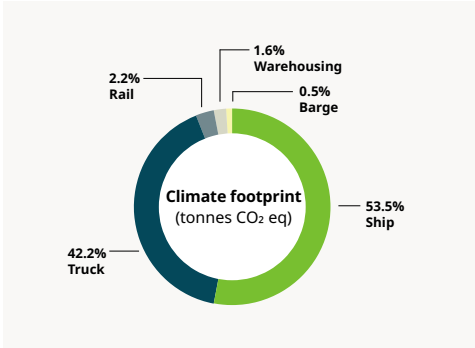
For product transport, the share of alternative fuels such as biofuel and electricity, increased from 9.2% in FY23 to 12% in FY24.⁶ The share of land intermodal remained at 51% globally since FY23.

The aim is to only use zero-emission medium and heavy-duty vehicles (MHDVs) and only purchase

zero-emission ocean transport services by 2040. We took some small but important steps during FY24 by continuing the deployment of electric vehicle (EV) trucks. As this is a long-term agenda, bigger progress is anticipated in the coming years.

Efficiently decarbonising our transport and logistics supply chain requires an end-to-end perspective. We must consider the entire journey of home furnishing goods from suppliers to warehouses and stores via ocean, land, terminals and ports. By addressing this in a holistic way, sub-optimisation and limiting the focus to only specific parts of the journey are avoided.

For more details on the actions we will take to achieve our emissions reduction target for product transport & logistics services, see the climate roadmap on [page 38](#).



¹ Scope: GHG Protocol, scope 3 emissions: Upstream transportation and distribution and connected fuel- and energy-related activities of tier 1 product transport suppliers.

² The baseline for product transport is FY17 due to limitations in source data for FY16 to follow-up progress. For the sake of the baseline for the IKEA value chain, it has been estimated for FY16.

³ The figures exclude the biofuels consumed using a book-and-claim approach, which is showcased in the Going Beyond IKEA section ([page 8](#)).

⁴ As defined by The Climate Group.

⁵ As defined by Cargo Owners for Zero Emission Vessels.

⁶ We include parts of the biofuel use within our Net Zero inventory and partly within Going Beyond IKEA. Please see [page 8](#) for more details.

Decarbonising the road section of the transport and logistics supply chain

In FY24, the absolute climate footprint from road transports decreased by 10% and from rail by 3% compared to FY23.

There was also a reduction in the relative emissions from overall land transport (which includes road, rail and barge transport) by 6% compared to FY23 and by 31% compared to the baseline FY17. Both absolute and relative reductions were due to improvements in supply chain efficiency (better equipment utilisation, deploying larger trucks, optimising the network) and increased use of biofuels.

As part of decarbonising road transport, we're moving long-distance shipments to intermodal¹ solutions such as rail, barge and short sea, and we're electrifying the first and last legs of the journeys.

We are maintaining a high share of intermodal transportation. In FY24, 51% of our global land replenishment transportation (measured in transported tonnes per kilometre) of home furnishing goods to warehouses and stores was secured by intermodal transportation. We saw an even higher share of 56% for land replenishment transportation for Europe. Rail transport, on average, decreases GHG emissions by 50% compared to a diesel truck. In addition to addressing

the immediate climate challenges, rail also has the additional benefit of improving the work-life balance of drivers by enabling shorter driving distances and reducing both road congestion and air pollution.

For the shorter distances, we are continuously increasing the share of EV trucks. In FY24, we doubled the number of countries where EV trucks are in operation to a total of 10.

In FY24, biofuels used in road transportation – mainly hydrotreated vegetable Oil (HVO) and biogas – increased by 20% compared to FY23 (from 6.3% in FY23 to 7.6% in FY24). We consider biofuels as a short-term option since they are not a zero-emission solution and still contribute to air pollution. However, they are available to reduce GHG emissions. In FY24, we moved most of our domestic flows to biofuels in Germany, the Netherlands, Austria, and Italy.



¹ Intermodal transportation is a method of moving goods using multiple modes of transport – such as rail, road, and sea – without directly handling the cargo when switching between these modes. This system relies on standardised containers or units, making transfers seamless and efficient.

Moving towards zero-emission ocean shipping

In FY24, the absolute climate footprint from ocean transports increased by 8.8% compared to FY23, while relative emissions decreased by 3%.

The increase in absolute emissions is due primarily to the crisis in the Red Sea. Since the end of 2023, container shipping lines have been forced to reroute from the Suez Canal to the Cape of Good Hope to avoid attacks in the Red Sea. The rerouting continues to impact the IKEA business, mainly on the Asia/Europe corridor, increasing our absolute CO₂ eq emissions in FY24 by 10%, due to the longer distances travelled. Still, relative emissions decreased by 3% due to improved supply chain efficiency. Compared to the baseline year FY17, ocean absolute emissions decreased by 14%, and relative emissions decreased by 20%, while our volume increased by 7.7%.

Even though we use biofuels in ocean shipping today (page 8), the long-term solution is zero-emission shipping, which is not yet available at scale. Initiatives such as the Zero Emission Maritime Buyers Alliance (ZEMBA) are key to moving the industry faster towards zero-emission options.

➔ First milestone reached in the journey towards zero-emission ocean shipping

We were the first member of Zero Emission Maritime Buyers Alliance (ZEMBA), joining in March 2023. Today, there are more than 40 members, demonstrating an increased demand in the industry to decarbonise ocean shipping.

In April 2024, ZEMBA announced the winner of the first-ever Request for Proposal (RFP) for zero-emission ocean shipping. The winning proposal was an exclusively waste-based biomethane service that is estimated to provide an emissions reduction over 90% on a lifecycle basis, starting from 2025. Being a part of this first-ever tender signals to the industry the demand for zero emission ocean shipping, which aligns with our aim for driving the decarbonisation transformation of ocean shipping.



Striving towards 100% renewable energy in logistics services



In FY24, the absolute climate footprint from logistics services decreased by 12% compared to FY23 and 56% compared to the baseline FY19. The goal for logistics services is to reach an 80% decrease in absolute emissions by FY30.

This positive development is largely due to an increased share of renewable electricity from 91% in FY23 to 95% in FY24. This is on track with our goal of using 100% renewable electricity by calendar year 2025 (CY25).

Our business teams prioritise renewable electricity in tender processes and action plans, including logistics units that we contract but do not own.

Currently, 45% of the logistics units we use are equipped with photovoltaic (PV) panels, generating a portion of their electricity on-site. Yet, to meet our targets, we depend on our renewable electricity programme for suppliers. Sometimes, our operations form only a small part of a logistics unit's total capacity, but we still require and support the entire unit's transition to renewable electricity. For instance, in China, all our logistics units now run on 100% renewable electricity.

Conversely, in the German market, our climate footprint for logistics units increased by 116% compared to FY23, predominantly due to a temporary shift from biofuels to natural gas. Going forward it's a necessity for every business decision to incorporate renewable electricity and energy; otherwise, we see an immediate negative impact on our emission targets.



➔ EV chargers and photovoltaic (PV) panels support renewable energy transport at distribution centre in Dubai, UAE

In FY24, our distribution centre (DC) in Dubai installed electric vehicle (EV) chargers on-site to enable the charging of EV trucks that serve the routes between the Dubai port and the DC. What's more, the PV panels installed at the DC are ensuring that the energy to charge the EV trucks comes from a 100% renewable energy source.



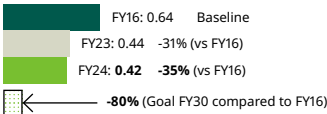
➔ PV panels and EV chargers installed at the Distribution Centre in Fengxian, China

Our DC in Fengxian, China has been operating on 100% renewable electricity for two years by purchasing electricity with energy attribute certificates (EACs). With increasing on-site renewable electricity generation a priority for the IKEA business, in FY24, the DC installed 1,700 square metres of photovoltaic (PV) panels, which means that 30% of electricity consumption for the DC is now being generated on-site. Warehouses are essential hubs in the zero-emissions network. To support the decarbonisation of land transportation in China, the DC has implemented two electrical chargers for heavy duty trucks. To accommodate truck drivers' schedules and increase efficiency, the DC has also extended opening hours for charging.

IKEA retail & other operations

(2% of the total IKEA value chain climate footprint in FY24)

Climate footprint (million tonnes CO₂ eq)¹



Goal FY30

By FY30, reduce the absolute GHG emissions from retail and other own operations by 80% compared to baseline FY16.²

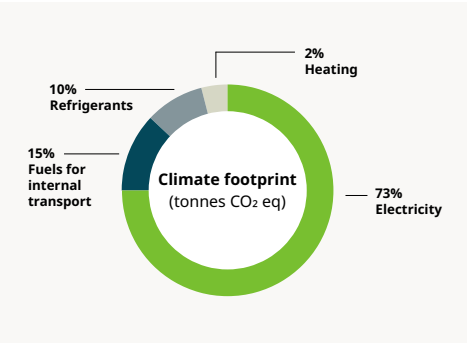
In FY24, the climate footprint from IKEA retail and other operations decreased by 6% compared to FY23 and 35% compared to the baseline FY16.

We saw an increase in both the share of renewable electricity, moving from 77% to 81% between FY23 and FY24, and the overall renewable energy share, which progressed from 69% to 71% between FY23 and FY24. Renewable energy includes renewable electricity in addition to renewable sources of heating, cooling, and fuels for transport.

In FY24, 32 out of 63 IKEA markets consumed 100% renewable electricity compared to 25 markets in FY23. Since it's easier in relative terms to secure 100% renewable electricity, we are focusing on achieving that first. Doing so provides time to identify solutions and plan investments for renewable heating, cooling and fuels, which are more capital-intensive and sometimes require retrofitting existing buildings. We prioritise electrification of heating using ground and air-source heat pumps over other solutions wherever possible.

For heating and cooling, five IKEA markets are at or almost at 100%. Noteworthy improvements to renewable heating were observed in the Czech Republic (+16 percentage points) and the USA (+7 percentage points).

Much more remains to be done to achieve our 2030 goal. For more details on the actions we will take to achieve our emissions reduction target for IKEA retail & other operations, see the climate roadmap on [page 39](#).



Markets that achieved 100% renewable electricity

Australia	France	Norway
Austria	Germany	Poland
Belgium	Hungary	Portugal
Canada	Iceland	Romania
China - Mainland	Ireland	Serbia
Croatia	Israel	Slovak Republic
Czech Republic	Italy	Slovenia
Denmark	Japan	Spain
Estonia	Latvia	Switzerland
Finland	Lithuania	Türkiye
	Netherlands	United Kingdom

¹ Scope: GHG Protocol, scope 1 & 2 emissions and scope 3: Fuel- and energy-related activities (including transmission & distribution losses) of Inter IKEA Group operations (excl. production at IKEA Industry and IKEA Components) and IKEA retail part of our franchisees' business. This, therefore, includes scope 3: Franchises.
² Scope: Inter IKEA Group and the IKEA retail business of Ingka Group.
³ Scope: Inter IKEA Group (excl. production at own units of IKEA Components and IKEA Industry) and the IKEA retail business of Ingka Group (scope 1 & 2).

Co-worker commuting & business travel

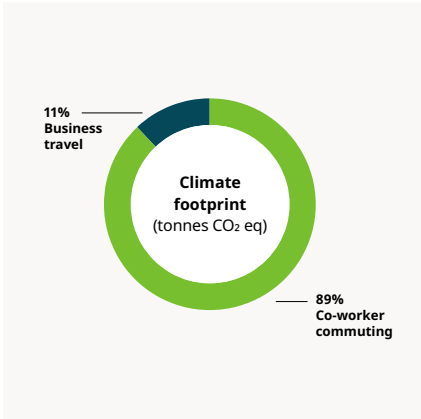
(2% of the total IKEA value chain climate footprint in FY24)

Climate footprint (million tonnes CO₂ eq)¹

	FY16: 0.50	Baseline
	FY23: 0.45	-10% (vs FY16)
	FY24: 0.44	-13% (vs FY16)

Goal FY30

By FY30, reduce the greenhouse gas (GHG) emissions from co-worker travel by 50% in relative terms per co-worker compared to baseline FY16.²



The climate footprint from co-worker commuting and business travel decreased by 3% in FY24 compared to FY23, and 13% compared to the baseline FY16.

Co-worker commuting

The co-worker commuting footprint decreased by 2% in FY24, compared to FY23. There has, however, been an increase of 10% compared to the baseline FY16. As this is a relative goal (emissions per co-worker) the reason for this increase compared to the baseline is due to growth in the number of employees across companies operating under the IKEA Brand since FY16. We continue to implement a hybrid work model for IKEA office-based employees (excluding those working in our stores and factories), resulting in a reduction in daily commutes to the office.

Business travel

The business travel footprint is estimated to have decreased by 14% in FY24 compared to FY23 and by 69% compared to the baseline FY16. This is a result of focusing on reducing travel, opting for train travel where feasible, and continuing to work towards minimising short-haul flights for day trips. We also encouraged online meetings instead of travelling where appropriate.

For more details on the actions we will take to achieve our emissions reduction target for co-worker commuting and business travel, see the climate roadmap on [page 40](#).



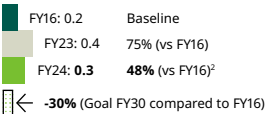
¹ Scope: GHG Protocol, scope 3 emissions – category 6: Business travel of Inter IKEA Group and IKEA retail part of Ingka Group, scope 3 emissions – category 7: Employee commuting of Inter IKEA Group and IKEA retail part of Ingka Group.

² Scope: Inter IKEA Group and the IKEA retail business of Ingka Group.

Home deliveries

(1% of the total IKEA value chain climate footprint in FY24)

Climate footprint (million tonnes CO₂ eq)¹



Goal FY30

By FY30, reduce the absolute GHG emissions by 30% compared to baseline FY16.²

In FY24, the climate footprint from home deliveries decreased by 16% compared to FY23.

We saw good progress in the share of zero-emission vehicles for home deliveries, increasing to 41% in FY24 from 25% in FY23.

As of FY24, the GHG emissions from home deliveries are 48% above the FY16 baseline. This is due to a significant increase in online purchases from customers over the past decade, resulting in disproportionately more home deliveries and emissions since the baseline year. We estimate that the total distance covered for home deliveries transportation has increased by 70% since FY16.

We have seen positive movement towards decoupling emissions from transported distance in relative terms, however we need to continue working towards securing EVs powered by renewable electricity and other zero emission solutions.

New sub-goal for transport for customer deliveries and services

Previously, our sub-goal was to aim for 100% of transport for customer deliveries and services to use electric vehicles (EVs) or other zero-emission solutions. This sub goal was for Inter IKEA Group and the IKEA retail business of Ingka Group.

We have been facing various challenges, including the availability of suitable zero-emission vehicles (ZEVs), a limited range of freight EVs, and a suitable charging infrastructure in many of the markets where we operate. While we continue to engage in policy advocacy in local markets and will maintain our overall emission reduction target, we are recalibrating our sub-goals. Ingka Group has now set a new sub-goal to achieve more than 90% of home deliveries made by zero-emissions vehicles by 2028. In view of the new ownership changes in the retail operations owned by Inter IKEA Group, we will calibrate the sub-goals during the course of 2025.

For more details on the actions we will take to achieve our emissions reduction target for home deliveries, see the climate roadmap on page 41.



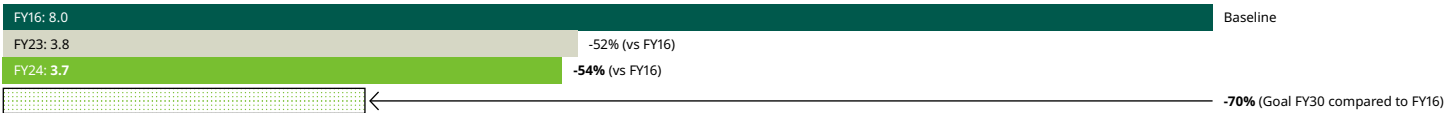
¹ Scope: GHG Protocol, scope 3 emissions: Downstream transportation and distribution of Inter IKEA Group operations and IKEA retail part of our franchisees' business.

² Scope: Inter IKEA Group and the IKEA retail business of Ingka Group.

Product use at home

(17% of the total IKEA value chain climate footprint in FY24)

Climate footprint (million tonnes CO₂ eq)¹

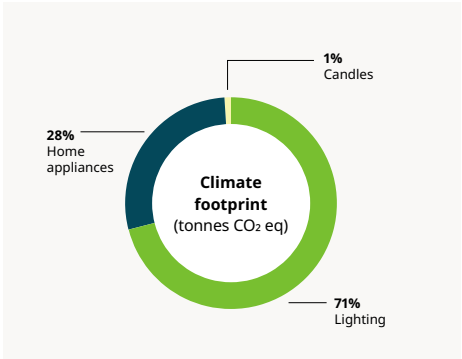


Goal FY30 (updated)

By 2030, reduce the absolute GHG emissions from product use at home by at least 70% compared to baseline FY16.

Sub-goal

By FY30, phase out all fossil-based paraffin used for candles.



In FY24, the climate footprint from product use at home decreased by 4% compared to FY23 and 54% compared to the baseline FY16.

Almost 99% of the footprint from product use at home comes from the electricity consumption of products such as lighting and home appliances (including gas hobs and refrigerants). A smaller portion comes from the burning of candles at home.²

Since FY23, the climate footprint from product use at home decreased by 4%, mainly due to reductions achieved in lighting and appliances.

Since the FY16 baseline, lighting has been by far the biggest contributor to the reductions of emissions from product use at home, accounting for 80 percentage points of the total reduction.

We continue to advocate for policies and regulations that enable our customers to consume renewable electricity at home. With a stronger development in the share of renewable electricity in national power grids, the climate footprint in customers’ homes would be significantly smaller.

For more details on the actions we will take to achieve our emissions reduction target for product use at home, see the climate roadmap on [page 42](#).



¹ Scope: GHG Protocol, scope 3 emissions: Use of sold products and connected fuel- and energy-related activities (including transmission & distribution losses).
² Smart home products from IKEA are currently excluded from the footprint. We are developing the methodology to measure the climate footprint of smart home products from IKEA, and it will be included in the FY25 climate report.

Lighting

In FY24, the climate footprint from lighting products used by customers at home has decreased by 2% compared to FY23, and 57% compared to the baseline FY16.

The FY24 reduction was due to incremental improvements in energy efficiency across our lighting range. However lower sales in lighting products also contributed to the reduction. Additionally, a portion of our lighting products were sold in countries where the renewable electricity in the grids was relatively less than our corresponding sales markets in FY23.

Going forward, we have a roadmap in place with clear goals and actions to continually improve the energy efficiency of our range by FY30, while maintaining a well-designed and affordable offer.



Our lighting range has offered energy-efficient LEDs exclusively since FY15 and since the baseline FY16, the energy efficiency of lighting in terms of lumens per watt has improved by 90%. This means for each kWh of electricity consumed, more light is generated and less energy is lost as heat.

Home appliances

The climate footprint of IKEA home appliances used by customers at home has decreased by 9% in FY24 compared to FY23 and 46% compared to the baseline FY16.

The FY24 reduction was mainly due to a decrease in the quantity of appliance sales.

We have a roadmap for FY30 in place with clear activities to improve energy efficiency by introducing more energy-efficient gas hobs, which will be achieved through new technologies over the coming years.



Candles

In FY24, the climate footprint from the burning of candles in customers' homes decreased by 13% compared to FY23 and 50% compared to the baseline FY16.

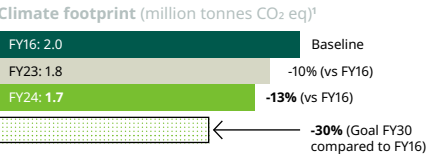
In FY24, the renewable wax percentage in our range saw a minor decrease from 71% to 70%, mainly because of the high costs for the renewable feedstock.

Our goal is to phase out fossil-based paraffin by FY30. Finding suitable alternatives to fossil-based paraffin is challenging, and we will continue to actively search for and test replacements. Despite this, we continue to work towards use of renewable candle waxes, and we are moving towards more diverse sources of vegetable-based waxes, such as rapeseed, shea-oil, and soy.



Product end-of-life

(8% of the total IKEA value chain climate footprint in FY24)



Goal FY30

By FY30, reduce the absolute GHG emissions from product end-of-life by at least 30% compared to baseline FY16.

In FY24, the climate footprint from product end-of-life decreased by 3% compared to FY23 and 13% compared to the baseline FY16.

Our overall material weight sold went down marginally by 1.2% in FY24. The product mix comprised of materials that were less likely to be incinerated or landfilled compared to FY23.

During the year, we also made calibrations going back to our FY16 baseline to ensure that electronic waste is calibrated with the correct end-of-life treatment. Previously, some electronic waste within our GHG inventory was inadvertently classified as compostable waste. This has now been rectified during FY24 and all preceding years.

Our current calculation model is based on estimations of the weight of products sold and the national averages on end destinations of waste: recycling, incineration and landfill. This model will be updated during FY25 to account for movements towards designing our products for recycling. Another improvement in the model will be to move away from using national averages on end destinations for different types of waste and instead to specify the local infrastructure near each IKEA store.



We're working to prolong the life of our products, supporting the development of responsible waste management set-ups and circular product loops. We are also encouraging reuse and are working with refurbishment and repair to ensure products last as long as possible and are recycled only as a last step. Our journey to transition to a circular

business will, therefore, reduce the likelihood that our products end up in landfills or are incinerated.

For more details on the actions we will take to achieve our emissions reduction target for product end-of-life, see the climate roadmap on [page 43](#).

¹ Scope: GHG Protocol, scope 3 emissions: End-of-life treatment of sold products.

The IKEA air pollution footprint

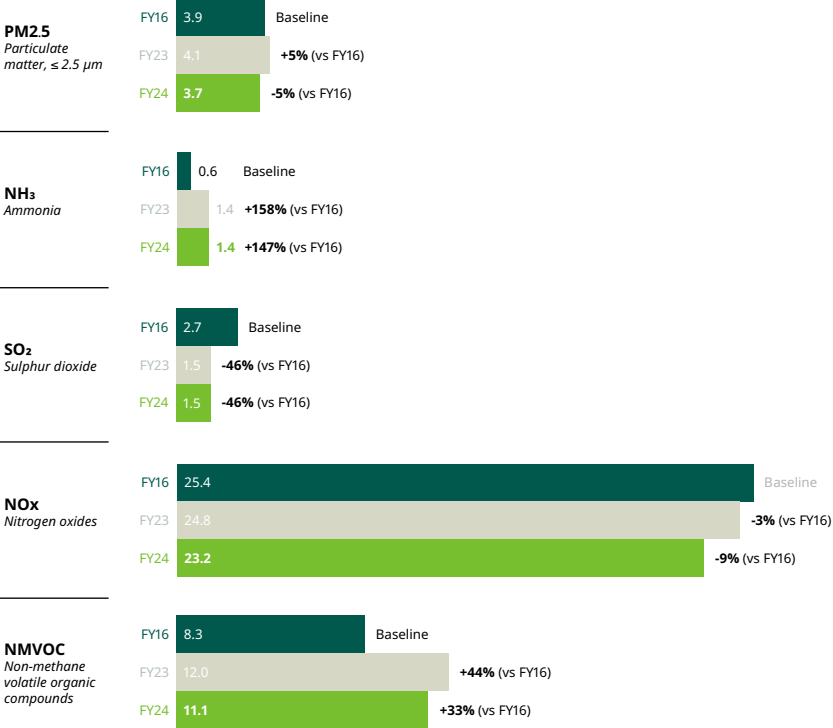
Clean air is essential for a healthy and more sustainable life. We are committed to actively reducing air pollutants from our operations and in customers’ homes.

Air pollution is one of the most significant public health challenges globally, affecting millions of people every year. Actions to reduce air pollution and address climate change are closely linked, with increases in both often coming from the same sources, such as burning fossil fuels. By working in an integrated way, we can mitigate climate change while also contributing to cleaner air.

We recognise the importance of being transparent about the impact on air pollution caused by our business and are committed to actively reducing air pollutants across our whole value chain. We also want to raise awareness about the importance of disclosing and addressing air pollution in hopes that other businesses and organisations do the same and take measures to address this very important topic.

In FY24, we continued to build on our air pollution agenda. Driven by the continuing movement towards renewable electricity in production, logistics services and retail, we saw a decrease in all air pollutants. Because of a delay in digitalisation efforts, we are still unable to share the air pollutants from materials and food ingredients, which together accounted for 56% of our emissions in FY24. We hope to publish the inventory, including those two parts of the value chain in FY25.

Air pollutants tracked within the IKEA value chain – performance vs. baseline FY16 (thousand tonnes)



Progress in reducing air pollution in FY24

- During FY24, particulate matter the size of 2.5 µm or less (PM2.5) decreased by 10% compared to FY23, mainly due to our increased consumption of renewable electricity across production, retail and other operations.
- Levels of nitrogen oxide (NOx) decreased by 6% compared to FY23 (and a reduction of 9% since FY16). The increase in renewable electricity across our value chain, the increased efficiency of our lighting range coupled with grid improvements in various markets around the world and the move to zero-emission vehicles (ZEVs) played a significant role in reducing this air pollutant.
- Non-methane volatile organic compounds (NMVOC) decreased by 8% compared to FY23, mainly because of improvements in the production part of the value chain, which saw a 10% decrease in NMVOC compared to the past year. Most of the improvement is attributable to lower production volumes during the reporting period.

For a full breakdown of emissions across the stages of the value chain, see appendix page 53.

Air pollution mitigation scenario (FY24 to FY30)

As part of our commitment to the Alliance for Clean Air, hosted by the World Economic Forum and Clean Air Fund, where IKEA is a founding member, we have been working on developing mitigation scenarios for air pollutants in the IKEA value chain. Through these scenarios, we have been able to quantify the impact of our FY30 climate roadmaps on air pollutant emissions within production, product transport & logistics services, IKEA retail and other operations, product use at home and product end of life.

While there are still improvements and further work that needs to be completed within the inventory, we can clearly already see the positive impact our existing mitigation measures will have on reducing air pollutant emissions.

From our mitigation analysis, we estimate the following impact on air pollutant emissions by FY30:

- Overall, across the parts of the value chain considered, we expect to mitigate more than 50% of emissions by FY30 for all pollutants, specifically: 51% reduction for black carbon, 58% reduction for PM2.5, 59% reduction for PM10, 57% reduction for NMVOC, 69% reduction for sulphur dioxide (SOx), and 68% reduction for NOx.
- The main reductions are seen within stationary fuel combustion and transport.

Some of the main movements that will contribute to reducing the air pollutants as a part of this mitigation scenario analysis include:

- Consuming 100% renewable electricity in IKEA retail markets operated by Inter IKEA Group and Ingka Group, and our top 13 supplier markets by FY25.
- Phasing out coal- and fossil oil-based fuels used in the production of IKEA products, where feasible, by FY25.
- Investing in new, cleaner technology to generate electricity and heat on-site from wood waste with very limited emission of air pollutants, such as the technology by MEVA Energy.
- Energy and fuel efficiency measures adopted across the considered parts of the value chain.

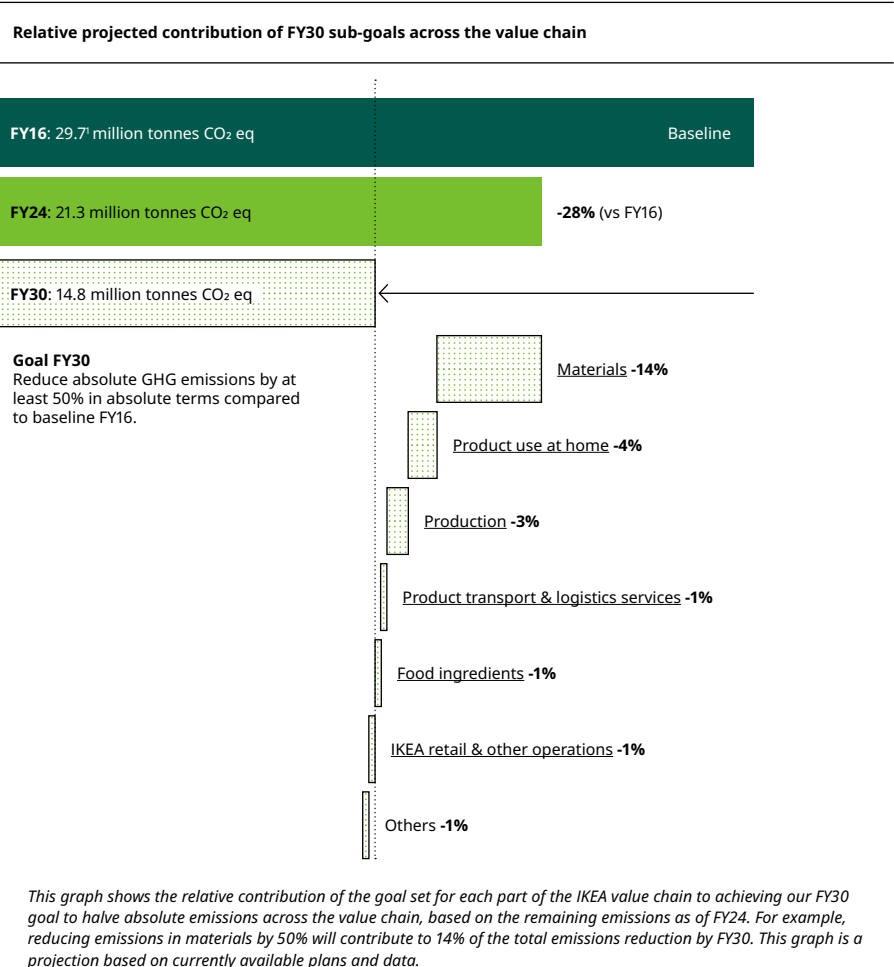


The IKEA climate roadmap



The IKEA climate road map is a first step toward aligning with the CSRD requirements for a climate transition plan. We will publish a CSRD-compliant climate transition plan when the reporting requirements take effect.

Our plan to reach our FY30 climate goals



We know our 1.5°C aligned climate goals are just the starting point. Achieving them requires transformational changes across the IKEA value chain.

When we developed our net-zero goals, we conducted a comprehensive business consequence analysis to first identify the actions needed across the IKEA value chain to achieve our FY30 target of halving absolute emissions by 50%. This analysis was used to secure approval for our net-zero goals from the IKEA Strategic Sustainability Council.

This exercise resulted in a clear climate roadmap to FY30, detailing specific actions for each part of the value chain and integrating them into actionable business plans.

Within our climate roadmap for FY30, we've detailed our key actions and challenges, as well as the broader industry and societal movements that will help us achieve our commitments. We will continuously evaluate evolving advancements in technology, material science, adoption of renewables and other broader movements in society to refine our pathways to achieve net-zero emissions across our entire value chain by FY50. This is an ongoing process, and we remain committed to adapting and calibrating our roadmaps as we progress.



In FY24, materials made up almost half of our total greenhouse gas (GHG) emissions footprint (52%), followed by product use at home (17%) and production (7%). These three areas of our footprint combine to add up to almost 76% of total GHG emissions for the IKEA Business.

Key drivers

We are committed to halving emissions across our entire value chain by FY30 (compared to baseline year FY16) and reaching net zero by FY50 without the use of carbon offsets.¹

Our agenda to drastically reduce emissions across the IKEA value chain is underpinned by four key drivers:

Increasing the use of materials and food ingredients with a lower climate footprint

Our ambition is to:

- Aim to use only renewable or recycled materials in our products.
- Introduce more plant-based and plant-rich food into the IKEA food range and reduce red meat.
- Continue to source materials and food from suppliers who use responsible management practices, such as wood certified by the Forest Stewardship Council (FSC).
- Choose materials with the lowest possible climate footprint, while considering impacts on people and nature.

Striving towards electrification, 100% renewable energy and continually improving energy efficiency

We will address the major root cause of climate change by phasing out fossil fuels and striving towards 100% renewable energy (electricity, heating, cooling and fuels) across the IKEA value chain. To enable the switch, we will favour the electrification of heating processes and transport. We will continually improve energy efficiency in our business and supply chain and enable our customers to do the same through our products and services.

Transitioning towards a circular business

We aim to become a circular business and design products from the very beginning to be reused, refurbished, remanufactured and recycled, prolonging their life and generating as little waste as possible. This includes providing services to enable the circular flows of products and materials in society. This will reduce the need to extract and process materials – the biggest part of our footprint.

Promoting sustainable choices

By increasing our efforts to inspire and enable a move towards healthy and sustainable lifestyles, we can play our part in making sustainable choices desirable, affordable and accessible for as many people as possible. It will also help drive down emissions. We can showcase that sustainability does not necessarily come at a premium but can be affordable as well. Some examples are moving towards more plant-based and plant-rich food, more energy and water-efficient products and offering opportunities for customers to participate in the circular economy through repairing and reusing products, reducing waste.



¹ Using carbon offsets refers to the practice of compensating for emissions by funding projects that reduce or remove greenhouse gases elsewhere rather than directly addressing the root cause of those emissions.

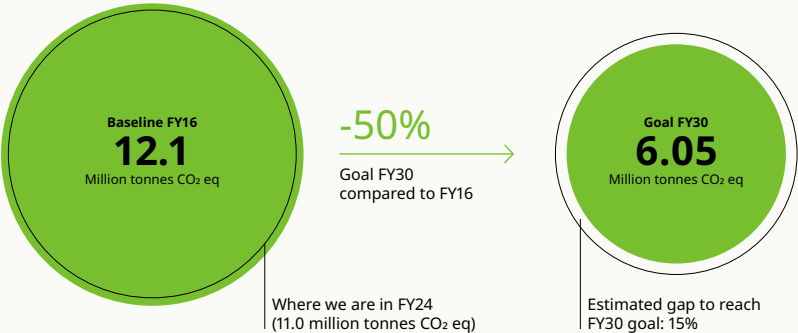
Our climate roadmap for FY30

Materials



By FY30, our goal is to reduce absolute GHG emissions from materials by at least 50% compared to the FY16 baseline, a reduction from 12.1 million tonnes CO₂ equivalent (CO₂ eq) to 6.05 million tonnes CO₂ eq. In FY24, we reached 11.0 million tonnes CO₂ eq. Our initial business consequence analysis projected an estimated reduction of -35% by FY30, which suggests a gap of 15%. This figure is an early estimate, and the actual gap will become clearer as we gather more data. We are also constantly evaluating and updating our action plans to reflect new opportunities realised in the process of new product and materials development and innovation generated within the IKEA business and as a result of broader industry movements.

We are working through the complexities of measuring our material footprint. In FY25, we will have more precise data that will more accurately reflect our progress as well as the gap we need to close by FY30. See our progress for FY24 on [page 10](#).



The climate footprint of materials includes the cradle-to-gate¹ footprint from raw material extraction and all processing steps and transport up until the gate of our tier 1 suppliers where the IKEA products are manufactured, which are covered under "production". Read more about our methodology on [page 50](#).

¹ Cradle-to-gate is an assessment of a partial product life cycle from resource extraction to factory.

Key actions to reduce emissions *(See the next page for more details)*

- Significantly increasing the share of recycled content in IKEA products as part of our aim to use only recycled and renewable materials.
- Building on our long-term focus on material efficiency, enabling more from less and reducing the amount of materials we use.
- Developing and selecting materials with a lower climate footprint during the design phase whenever possible.
- Securing a higher share of renewable energy in the material supply chain.
- Strengthening and expanding responsible forest and agriculture management practices.

Challenges we are working to address






- **Need for increased traceability of primary and secondary raw materials:** To enable more accurate measurement of progress and understand emissions reduction opportunities at every stage of production, we need to work even closer with suppliers to secure better and more consistent data. This will also ensure responsible sourcing and support the traceability of materials.
- **Availability and scalability of lower-emission materials and technologies:** Reducing emissions for materials depends on us being able to access and scale up lower carbon materials consistently across our supply chain. Additionally, there is a challenge that innovative new materials often come with high initial costs connected to research and development and limited supply.
- **Adoption of renewable energy in supply chains:** Building on our long-term relationships with suppliers, we're working to support them in setting climate goals and transitioning to renewable energy. Continuing to strengthen collaboration opportunities with suppliers in the material supply chain remains key to achieving our overall climate goals.

Opportunities for collaboration to accelerate progress

- **Advocating for the implementation of harmonised external carbon pricing:** The IKEA business recognises external carbon pricing mechanisms aligned with the science of 1.5°C as an important tool to be used by governments and the EU to achieve the necessary absolute reduction of emissions. Carbon pricing policies, where mechanisms are applied across all sectors, in as many countries as possible and internationally harmonised, will help to encourage faster movement towards materials with a low carbon footprint.
- **Partnering to call for increased renewable energy and eliminate fossil fuels:** We're partnering with others to encourage governments to adopt a global, harmonised commitment with regulatory and policy alignment, investments in renewable energy and cross-border collaboration to phase out fossil fuels. This will enable us – and our material suppliers – to speed up the adoption of renewable energy.
- **Supporting policies to accelerate circularity:** We support calls to action encouraging governments to implement international standards and a harmonised approach to circularity across borders, reframing waste as a resource and supporting further development of the recycling infrastructure. These movements would help reduce or remove barriers to help accelerate the adoption of recycled materials and/or keep products and materials in use for longer.
- **Cross-industry collaboration to scale material innovation:** Since many new materials and technologies are at the research stage or in need of scaling up, we see an opportunity to collaborate with other businesses and suppliers to drive material innovations and solutions that can be deployed faster. Collaborations and coalitions are needed here to create opportunities and share the cost of innovation.

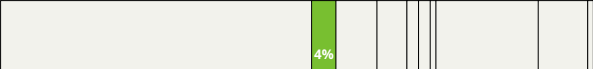
Key actions to reduce GHG emissions by material

The five materials used today within the IKEA business, that make up the largest share of GHG emissions for a combined footprint of 91% ([page 10](#)) include wood, metals, textiles and comfort materials, plastics and paper. Focusing on these materials will result in the most impactful reductions.

Metals	Wood	Textiles & Comfort	Paper	Plastics
<p>While metals are recyclable and essential for the IKEA range in fittings and cookware, they have the largest relative climate footprint of our materials.</p> <p>Key actions to reduce emissions</p> <ul style="list-style-type: none">Increasing recycled content in steel and aluminium.Using metals in a smarter way to increase material efficiency, such as opting for high-strength steel which enables us to use less material while achieving the same properties.Using the right material for the right application such as using carbon steel instead of stainless steel in use cases where there is no exposure to wet conditions or food contact.Exploring new steel production techniques to achieve lower emission steel. <div></div> <p>See our progress for FY24 on page 12.</p>	<p>Wood is the most widely used material in the IKEA range and is part of our identity and Swedish heritage. It includes particleboard, fibreboard, solid wood, layer glued and veneer.</p> <p>Key actions to reduce emissions</p> <ul style="list-style-type: none">Moving from fossil-based glues to bond wood components or fibres (currently representing approximately 5% of the total IKEA climate footprint) to glues with lower climate footprints, such as bio-based glues.Continuing to increase renewable energy in board production.Focusing on resource efficiency with high-yield coatings, coverings, adhesives, and processes, reducing emissions by minimising waste and lowering energy consumption. <div></div> <p>See our progress for FY24 on page 11.</p>	<p>Textiles and comfort materials include textiles from across the home, like bed textiles, curtains, rugs and towels, as well as comfort materials with a plastic origin, such as foam in sofas and mattresses.</p> <p>Key actions to reduce emissions</p> <ul style="list-style-type: none">Reducing the use of polyurethane foam.Reaching the full potential of recycled fibres (aiming for a minimum of 30% of the cotton used across the IKEA range be recycled cotton by FY30 and aiming for zero virgin fossil-based polyester by FY25 where technically possible).Increasing the use of alternative natural and synthetic fibres like jute, flax, hemp, lyocell, and viscose, which have a lower climate footprint compared to virgin cotton. <div></div> <p>See our progress for FY24 on page 13.</p>	<p>Paper is used in many ways across the IKEA offer – not just in packaging material and price tags but also in products such as paper foil, lampshades and home organisation products, to name a few.</p> <p>Key actions to reduce emissions</p> <ul style="list-style-type: none">Optimising mix of renewable and recycled feedstock.Consolidating volumes with paper mills with lower CO₂ footprint.Investing in R&D with strategic partners for innovation. <div></div>	<p>Plastics are found throughout the IKEA offer – from furniture and electronics to fittings and packaging material.</p> <p>Key actions to reduce emissions</p> <ul style="list-style-type: none">Maximising the usage of recycled materials – increasing the share of recycled post-consumer feedstock.Using renewable based materials to close the gaps where recycled materials may not be appropriate (for example, where materials come into close contact with food or high-risk children's products like cribs).Aiming to have no virgin fossil-based plastic in our products by FY30.Transitioning from plastic to paper in packaging and products. <div></div> <p>See our progress for FY24 on page 14.</p>

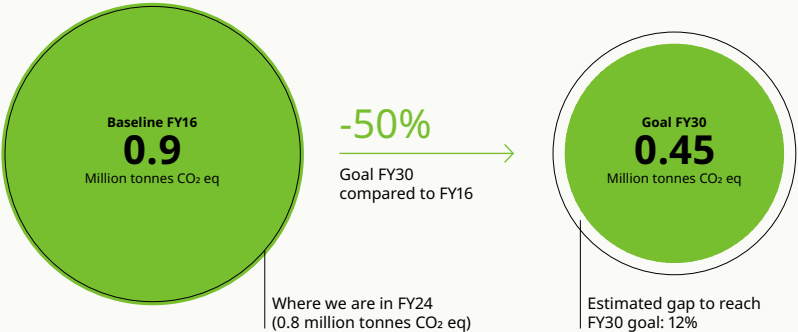
Our climate roadmap for FY30

Food ingredients



Food ingredients made up **4%** of the total IKEA value chain climate footprint in FY24.

By FY30, our goal is to reduce absolute GHG emissions from food ingredients by 50% compared to the FY16 baseline, a reduction from 0.9 million tonnes of CO₂ eq. to 0.45 million tonnes of CO₂ eq. In FY24, we have reached 0.8 million tonnes of CO₂ eq. Our initial business consequence analysis projected an estimated reduction of -38% by FY30, which suggests a gap of 12%. This figure is an early estimate, and the actual gap will become clearer as we gather more data. We are also constantly evaluating and updating our action plans to reflect new opportunities identified as we develop and leverage innovation for new production processes and food ingredients generated within the IKEA business and as a result of broader industry movements. See our progress for FY24 on [page 15](#).



The climate footprint for food ingredients is calculated in a similar cradle-to-gate¹ way as materials – from raw materials extraction and all processing steps and transport to the factory manufacturing the food products. Read more about our methodology on [page 50](#).

¹ Cradle-to-gate is an assessment of a partial product life cycle from resource extraction to factory.

Key actions to reduce emissions

- Increasing the share of ingredients with a lower emissions footprint (e.g., reducing red meat and increasing plant-based and plant-rich offerings).
- Continuing work to secure deforestation-free sourcing of food ingredients starting with soy, palm oil, beef, cocoa and sugarcane by FY25.²
- Inspiring and enabling consumers to choose foods with a lower emissions footprint, including working in partnership with our franchisees, focusing on affordability to encourage more customers to choose plant-rich alternatives.
- Initiating the transition from conventional farming towards more responsible agriculture practices, such as regenerative agriculture, contributing to enhanced soil health for increased carbon sequestration and biodiversity.
- Reducing food waste across the IKEA value chain.

Challenges we are working to address

- Need for increased traceability of food ingredients to the source:** To enable more accurate measurement of progress, ensure responsible sourcing and understand emissions reduction opportunities at every stage of production, we need to work even closer with suppliers to secure better and more consistent data. This includes improving traceability of food ingredients, as well as addressing food waste and food loss at the sourcing level.
- Ability to scale more responsible agriculture practices:** The transition to more responsible agriculture practices, such as regenerative agriculture, is a challenge that will take time to scale. We are working to understand how to partner with suppliers to support this transition and protect farmer livelihoods.
- Customer dietary shifts:** We are working to increase customer awareness of the environmental and health impacts of their food choices while making lower-carbon options more accessible and affordable. However, changing ingrained eating habits and preferences, which often favour high-emission foods like meat and dairy, is a longer-term challenge. We aim to address this through continued awareness building and offering delicious, lower-carbon alternatives.

Opportunities for collaboration to accelerate progress

- Continued collaboration and partnerships on innovation:** We are exploring opportunities to engage with industry stakeholders and innovative start-ups to develop scalable solutions for alternative proteins, further develop regenerative farming practices, and innovative food products.
- Policies supporting access to finance for regenerative agriculture:** Collaborating with partners to advocate for governments to implement holistic agricultural policies that incentivise innovation, education, and research while also reducing subsidies for harmful industrial farming practices. These movements will accelerate industry-wide adoption and transition to regenerative agriculture, which will support farmers from whom we source food ingredients to adopt these practices.

² IKEA is committed to no deforestation and no forest degradation across our primary deforestation-linked commodities (soy, palm oil, beef, leather, coffee, cocoa, rubber, and sugarcane), with a target date of December 31, 2025. All wood used in IKEA products is sourced from responsibly managed forests which do not contribute to deforestation. Commodities and products in scope of the European Union Deforestation-free Regulation (EUDR) will have to meet the corresponding timelines.

Production



Baseline FY16
3.7
Million tonnes CO₂ eq

-80%

Goal FY30
compared to FY16

Goal FY30
0.74
Million tonnes CO₂ eq

Where we are in FY24
(1.5 million tonnes CO₂ eq)

✓ We project that we will meet our FY30 goal

The climate footprint of production is the final step in the supply chain, where IKEA home furnishing or food products, components and printed media are produced. It also includes the IKEA owned factories operated by IKEA Industry and packaging and distribution units by IKEA Components. Read more about our methodology on page 50.

¹ A principle ensuring that environmental or social benefits, such as emission reductions or conservation gains, result directly from a project and would not have occurred without it.

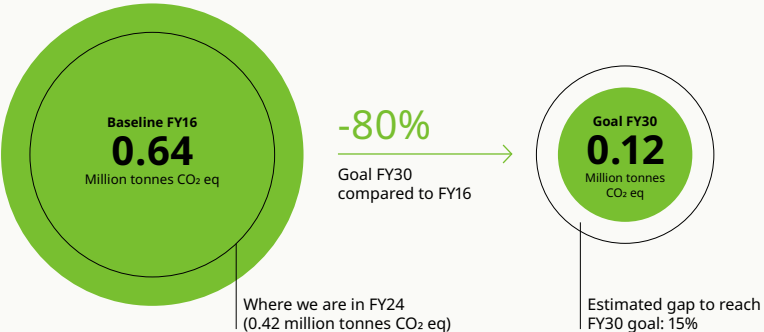
Our climate roadmap for FY30

IKEA retail & other operations



IKEA retail and other operations made up 2% of the total IKEA value chain climate footprint in FY24.

By FY30, our goal is to reduce absolute GHG emissions for retail and other operations by 80% compared to the FY16 baseline, a reduction from 0.64 million tonnes of CO₂ eq. to 0.128 million tonnes of CO₂ eq. In FY24, we reached 0.42 million tonnes of CO₂ eq. Our initial business consequence analysis projected an estimated reduction of -65% by FY30, which suggests a gap of 15%. This figure is an early estimate, and the actual gap will become clearer as we gather more data. We are also constantly evaluating and updating our action plans to reflect new opportunities to scale the adoption of renewable energy. See our progress for FY24 on [page 23](#).



The climate footprint of IKEA retail and other operations covers all IKEA operations (stores, warehouses, offices, etc.) by Inter IKEA Group and the IKEA retail business of each of the IKEA franchisees. It does not include IKEA owned factories by IKEA Industry and packaging and distribution units by IKEA Components since these are reported in production. Read more about our methodology on [page 50](#).

Key actions to reduce emissions

- Continuing to increase the share of renewable energy, including renewable electricity, renewable sources of heating, cooling, and fuels for transport.
- Consuming 100% renewable electricity in Inter IKEA own operations and the IKEA retail operations of Ingka Group by FY25.
- Aiming for 100% renewable electricity in all other franchisee markets by FY30.
- Continuing to move towards electrifying heating and cooling processes and moving away completely from the dependence on natural gas.
- Transitioning to refrigerants with lower Global Warming Potential (GWP).

Challenges we are working to address

- Need for increased Power Purchase Agreement (PPA) infrastructure:** Currently there is a challenge in securing PPA infrastructure in many of our retail markets. Where PPAs are not available today, we are using Energy Attribute Certificates (EACs) on a transitional basis. However even EACs are not available or reliable in several retail markets today such as Hong Kong, Qatar, and Bahrain.
- Financial challenges facing retail:** We are working to find solutions to the financial challenges faced by our retail markets including strategies for managing increased operational expenses of EACs, high capital expenditure costs, and long payback periods for rooftop solar installations.

Opportunities for collaboration to accelerate progress

- Partnering to call for increased renewable energy and eliminate fossil fuels:** We're partnering with others to encourage governments to adopt a global, harmonised commitment with regulatory and policy alignment, investments in renewable energy and cross-border collaboration to phase out fossil fuels and increase renewable energy. For retail and other operations, advocating for improved PPA infrastructure and expanded grids will be particularly important in markets that currently limit the use of renewable electricity (e.g., Saudi Arabia, Indonesia, UAE).

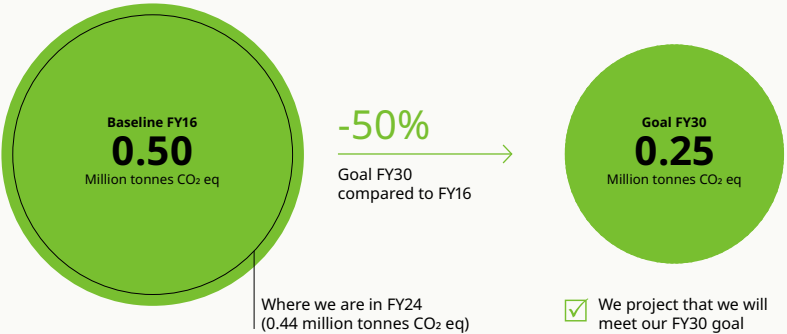
Our climate roadmap for FY30

Co-worker commuting & business travel



Co-worker commuting and business travel made up 2% of the total IKEA value chain climate footprint in FY24.

By FY30, our goal is to reduce absolute GHG emissions for co-worker commuting and business travel by 50% compared to the FY16 baseline, a reduction from 0.5 million tonnes of CO₂ eq. to 0.25 million tonnes of CO₂ eq. In FY24, we reached 0.44 million tonnes of CO₂ eq. See our progress for FY24 on [page 24](#).



The climate footprint from co-worker commuting covers co-worker travel to stores, factories and offices for Inter IKEA Group and the IKEA retail business of Ingka Group. For business travel, the climate footprint includes various modes of travel, including air, rail, public transport, rental cars, private vehicles, taxis and hotel accommodations. Read more about our methodology on [page 50](#).

Key actions to reduce emissions

- Inspiring and enabling co-workers to choose low-emission commuting options like public transportation, cycling or driving EVs.
- Minimising non-essential business travel.
- Limiting short-haul flights for day trips.
- Supporting hybrid work model for IKEA office-based employees.

Challenges we are working to address

- **Need to increase co-worker adoption of low-emission commuting options:** To reduce emissions, we need to continue to implement programmes and incentives, along with awareness and training campaigns, to motivate co-workers to opt for low-emission commuting options. This helps not only to reduce emissions but also supports a culture of sustainability among co-workers.
- **Access to commuting patterns and business travel data:** Utilising advanced tools and systems to monitor and analyse commuting patterns and business travel data will enable us to identify high-impact areas and measure the effectiveness of the implemented measures. We need to continue to build our capability in this space to ensure continuous improvement in our efforts to scale low-emission commuting and travel practices.
- **Reliable digital infrastructure and collaboration tools:** We need to continue to develop and implement reliable digital infrastructure and collaboration tools to support remote work and virtual meetings and reduce the need for physical commuting and travel.

Opportunities for collaboration to accelerate progress

- **Collaboration to improve public transportation:** To create more reliable and sustainable commuting options for co-workers, reduce traffic congestion, and lower emissions, we will continue to partner with local governments and organisations to enhance public transportation networks and infrastructure, including the installation of charging points for EVs.



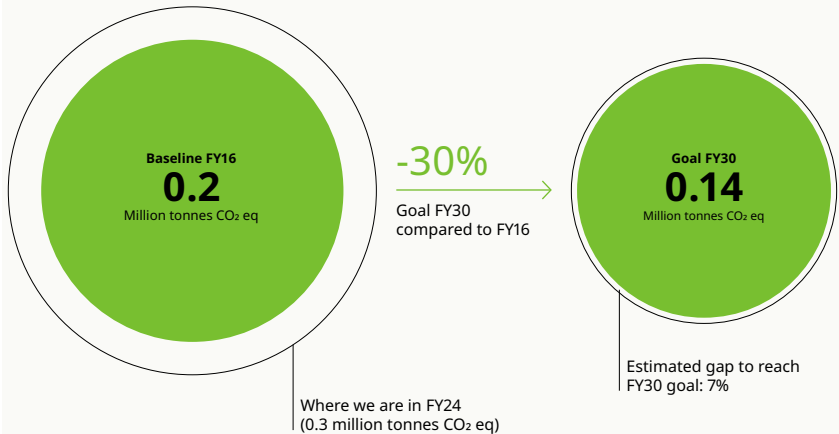
Our climate roadmap for FY30

Home deliveries



Customer travel and home deliveries made up **1%** of the total IKEA value chain climate footprint in FY24.

By FY30, our goal is to reduce absolute GHG emissions for home deliveries by 30% compared to the FY16 baseline, a reduction from 0.2 million tonnes of CO₂ eq to 0.14 million tonnes of CO₂ eq. In FY24, our emissions were 0.3 million tonnes CO₂ eq which is an increase compared to our FY16 baseline. This is due to increasing online purchases, resulting in disproportionately more home deliveries and related emissions since the baseline year. See our progress for FY24 on [page 25](#).



The climate footprint from home deliveries includes emissions produced by transporting products from IKEA distribution centres or stores to customers' homes. Read more about our methodology on [page 50](#).

Key actions to reduce emissions

- Aiming for 100% of transport for customer deliveries and services to use electric vehicles (EVs) or other zero emission solutions, starting with IKEA retail markets operated by Inter IKEA Group and Ingka Group.
- Steering franchisees to secure renewable electricity for their own operations and charging EVs.



Challenges we are working to address

- **Availability of EVs for home deliveries:** Transitioning to EVs is key to reducing emissions for home deliveries. We're working to secure and increase the supply of EVs and charging infrastructure for home deliveries, but the challenge of limited availability remains.
- **Efficient route planning and logistics optimisation for home deliveries:** We need to continue to adopt technologies which support real-time data analysis to minimise travel distances and maximise delivery efficiency.
- **Access to renewable electricity:** To reduce emissions, EVs need to be powered using renewable electricity. In some IKEA retail markets, there is a challenge securing access to renewable electricity. To address this, we are working to identify other zero-emission solutions to support home deliveries.

Opportunities for collaboration to accelerate progress

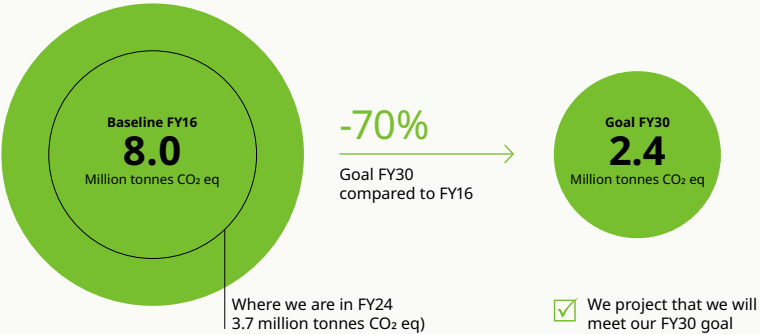
- **Collaboration to scale EVs and charging infrastructure:** We're exploring opportunities to join partnerships and initiatives with governments, utility providers, and private players aimed at expanding EV usage and accelerating the development of EV charging infrastructure.
- **Advocating for renewable electricity for EVs and zero-emission solutions:** We see an opportunity to seek out partnerships with external stakeholders, renewable energy providers, and policy advocates to help overcome barriers in markets where access to renewable electricity is a challenge. By working together, we aim to identify and implement alternative zero-emission solutions for home deliveries and support franchisees in advocating for renewable energy policies.

Our climate roadmap for FY30

Product use at home



By FY30, our goal is to reduce absolute GHG emissions for product use at home by 70% compared to the FY16 baseline, a reduction from 8.0 million tonnes CO₂ eq. to 2.4 million tonnes CO₂ eq. In FY24, we have reached 3.7 million tonnes CO₂ equivalent. See our progress for FY24, [page 26](#).



The climate footprint of product use at home is based on the energy consumption for the home use of IKEA lighting, home appliances and home electronics as well as the burning of candles. Read more about our methodology on [page 50](#).

Key actions to reduce emissions

- Continuing to improve the energy efficiency of our lighting range (aiming to increase the energy efficiency of top light source range SOLHETTA by 1.5x compared to today).
- Aiming to improve energy efficiency by 10% for ovens, hoods, fridges and freezers.
- Phasing out fossil-based paraffin in candles by FY30.



Challenges we are working to address

- Continuous improvement in the energy efficiency of products:** Today, we focus on incorporating the latest advancements in technology and innovation to optimise the energy performance of products like our lighting range and home appliances. However, continuing to improve the efficiency of products remains challenging due to diminishing returns on technological advancements, meaning that each new improvement gets harder, more complex, and more expensive to achieve.
- Responding to evolving regulatory standards and industry benchmarks:** We work to proactively adapt to evolving regulatory standards and industry benchmarks for energy consumption, but it is at times challenging to keep pace with the changes.
- Customer adoption and proper use of energy-efficient products:** Encouraging consumer adoption and ensuring the proper use of energy-efficient products are vital for maximising their environmental benefits. We are committed to inspiring and enabling our customers to make the most of our energy-efficient solutions.

Opportunities for collaboration to accelerate progress

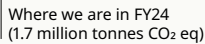
- Strong partnerships with suppliers:** We have strong relationships with our suppliers and continue to partner with them to secure the availability of responsibly sourced materials and components necessary to effectively improve the energy efficiency of our products.
- Advocating for the scale up of renewable energy across all markets where we sell our products:** Our customers are highly dependent on the electricity offered in their local markets for powering IKEA products such as lighting and appliances. Through actively partnering with others to advocate for the adoption of renewable energy, we aim to influence policies supporting increased renewable energy in the grids, which would support a decrease in our product use at home emissions footprint.

Product end-of-life



th

By FY30, our goal is to reduce absolute GHG emissions for product end-of-life by 30% compared to the FY16 baseline, a reduction from 2.0 million tonnes of CO₂ eq to 1.4 million tonnes of CO₂ eq. In FY24, we have reached 1.7 million tonnes of CO₂ eq. See our progress for FY24 on [page 28](#).



✓

W

The climate footprint of product end-of-life is based on the emissions released during the final stage of an IKEA product's lifecycle, when it is disposed of or recycled. Read more about our methodology on [page 50](#).

Key actions to reduce emissions

- Using circular design principles to prolong the life of our products as well as enable easier repair and recycling of materials as a last step.
- Expanding existing programmes and exploring new ones for take-back and recycling, enabling our customers to return used products for refurbishment or pass them on to others for reuse.
- Continuing to increase the availability of spare parts for customers to care for, repair and prolong the life of IKEA products.



Challenges we are working to address

- **Innovation in recycling technologies:** Increased innovation is essential to overcome the limitations of recycling. We are currently making use of existing advanced technologies to support restoring material quality, improving sorting technologies for better material identification and separation, and developing methods to remove additives like dyes and flame retardants. However more innovation in these areas would help us move faster.
- **Customer education on product care and end-of-life programmes:** Initiatives to inspire and enable customers on product care, repair, and end-of-life take-back programmes are crucial, and we are constantly working to expand the programmes and solutions we offer. By providing clear guidance and support, we are enabling customers to extend the life of their products and facilitating responsible disposal and recycling, contributing to a more circular economy.

Opportunities for collaboration to accelerate progress

- **Partnering to support further waste management infrastructure:** In order to increase the efficiency of circular loops, there is a critical need for robust waste management set-ups, including waste collection, sorting, and processing infrastructure. We are partnering with a multi-sector group of stakeholders to enhance these systems and support a more sustainable end-of-life process for our products.
- **Supporting circular policy movements:** We lend our voice to influence governments to adopt international standards and a harmonised approach to circularity across borders, reframing waste as a resource and supporting further development of recycling infrastructure.

Our climate roadmap for FY30

Broader societal movements to accelerate progress



Through the IKEA business, we have an opportunity to be a good example for positive change in society. This means looking critically at all aspects of our business and engaging with stakeholders across the value chain to remove barriers and find solutions to challenges.

In our roadmap, we are open about our challenges and dependencies, identifying where we have projected gaps to achieve our FY30 climate ambitions. Some of these are related to the need to invest in innovation, increase efficiency, and the creation of new technologies.

Still, actions that have a real and lasting impact on the climate require a global effort underpinned by global policy movements for net-zero emissions. We believe it takes a comprehensive approach, integrating multiple policies and strategies across various sectors of the economy and aspects of society. By aligning the National Determined Contributions (NDCs) with the science of 1.5°C, countries can accelerate climate action through policy and regulatory changes.

As outlined in our climate roadmap, the IKEA business is committed to halving emissions by FY30 and working towards reaching net zero by FY50. We will go beyond IKEA and contribute to collective efforts mitigating the impacts of climate change and enabling societal climate resilience. We are driven by our vision to create a better everyday life for the many people, and our climate commitments are a big part of our everyday work.

Our ability to deliver on these ambitious goals will be influenced by regulations. Legislators and policymakers can support us by developing stable, fact-based and robust regulations reinforced by clear expectations, reasonable implementation timelines, and no overlaps or uncertainties in their application.

We believe in taking action together. To achieve this, close collaboration between businesses and countries is needed. By creating incentives, regulators can support businesses, practices, and technologies that accelerate movements towards a net-zero society, while businesses can share their best practices and smart solutions.

As outlined on the following pages, we see three key climate policy areas which would support this acceleration for businesses and society:

1. Accelerating the transition to renewable energy-based systems and supporting the decarbonisation of all industry sectors.
2. Promoting sustainable sourcing and products, as well as circular business models aimed at prolonging product and material life.
3. Protecting forests and making responsible forest management the norm.

Accelerating the transition to renewable energy-based systems and supporting the decarbonisation of all industry sectors

By phasing out fossil fuels, we believe society can address the main cause of climate change. The IKEA business supports the phase out of fossil fuels. We focus on actions that will reduce any potential dependency in the area of fossil energy.

How we are contributing:

- Working towards the complete phase-out of on-site coal, oil and oil-based fossil fuels by FY27.
- Making progress on securing 100% renewable energy (electricity, heating, cooling and fuels) across the IKEA value chain by 2030.
- Securing 100% renewable electricity consumption across IKEA own operations by FY25.
- Investing EUR 100 million in financing for the on-site generation of renewable energy.
- Promoting on-site renewable energy generation by suppliers.
- Enabling the purchase of renewable electricity for what can't be generated on-site.
- Electrifying production processes, heating and internal transports.
- Advocating and partnering with others to call for action to increase the availability of renewable energy and eliminate fossil fuels.

Policy movements that can further support:

- A global commitment to move towards a complete phaseout of fossil fuels in line with science and the 1.5°C target – through regulatory

alignment, investments and cross-border collaboration.

- Eliminating subsidies for fossil fuels to create a fair, competitive environment for renewable energy sources.
- Streamlining the permitting procedure to facilitate faster deployment of renewables capacity.
- The development and deployment of green hydrogen infrastructure will be key to decarbonising many heavy industry sectors, such as steel. Continuous support through policy instruments is also needed.
- While biomethane has a potential to be an interim solution for "difficult to decarbonise" industries (until complete electrification is possible), it is important to implement policies and guardrails to ensure the feedstock used is sustainable and does not lead to land use change.
- Accelerating the deployment of charging infrastructure along national highways, incentivising the use of zero-emission vehicles (ZEVs) and EVs, supporting the development of alternative renewable fuels, and fostering public-private partnerships to ensure the transport sector aligns with the science of 1.5°C.
- A just and equitable transition needs to be secured alongside the transformation of the transport industry. This can enable new jobs as well as contribute to cleaner air and safer transport systems that benefit people and communities.

Promoting sustainable sourcing of products as well as circular business models aimed at prolonging product and material life

Circularity is key to emissions reductions and decarbonisation of materials. Embedding circular design principles in how we make and use products can help cut emissions from industry, agriculture, and land use that switching to renewable energy alone can't solve.¹ This is why we are focused on transitioning to a circular business as a key enabler to achieving our climate goals.

How we are contributing:

- Our goal to reduce absolute GHG emissions in materials by 50% by FY30.
- Designing IKEA products with circular capabilities.²
- Aiming to only use recycled and renewable materials, with a specific focus on significantly increasing the share of recycled content in IKEA products.
- Making it easy for people to acquire, care for and pass on products in circular ways.
- Aiming to send zero waste from IKEA operations to landfill.

Policy movements that can further support:

- Tangible investments are needed for responsibly sourcing, sorting, processing, and recycling waste, accompanied by global frameworks that reframe waste as a resource for the circular economy. These frameworks should be supported by incentives to further reuse, repair, remanufacture, and recycle goods.
- Circular Economy initiatives that promote circular business models designed to extend the lifespan of products and materials through refurbishment, recycling, and reselling.
- Sustainable products and innovation should be encouraged and supported with incentives for business.
- Helping boost the market for recycled wood by removing regulatory barriers rooted in outdated waste definitions and traceability requirements applied to recyclables while supporting increased and improved collection of wood for recycling.
- Regulations regarding sustainable sourcing should also have the ambition to contribute to a fair and equal society by respecting human rights and promoting resilient societies that can adapt and transform as they face the long-term stresses and uncertainty of climate change.

¹ Ellen MacArthur Foundation, "[Fixing the economy to fix climate change](#)"

² Circular capabilities means that a product could be reused, refurbished, remanufactured, and/or recycled. Practically, a product is considered to have circular capabilities if it meets all requirements linked to the circular design principles applicable to that specific product.

Protecting nature and making responsible forest management the norm

To limit the average global temperature rise to 1.5°C, it is not enough to just drastically reduce emissions. We also need to remove and store atmospheric carbon. Nature plays an important role in combatting climate change, and it is therefore imperative that we protect natural ecosystems. Because forests serve as significant carbon sinks, it is important that we step up our efforts in forest restoration, reforestation and afforestation globally.

How we are contributing:

- Committing to no deforestation, no forest degradation or conversion of natural ecosystems across our primary deforestation-linked commodities (soy, palm oil, beef, leather, coffee, cocoa, rubber, wood, and sugarcane), with a target date of 31 December 2025.¹ All wood used in IKEA products is sourced from responsibly managed forests which do not contribute to deforestation.
- Contributing to limiting climate change by removing and storing carbon from the atmosphere through responsible forest management practices within the IKEA value chain and in products through prolonging the life of products and materials.

- Neutralising the remaining up to 10% of emissions needed to achieve our net-zero goal by removing and storing carbon from the atmosphere through responsible forest practices within our value chain.
- Contributing beyond net zero: When the Land Sector and Removals Guidance is published by the GHG Protocol in 2025, we will set near- and long-term goals for removing and storing carbon in forestry, agriculture and in products (by prolonging the lifespan of products). This will be over and above the amount of carbon removals and storage needed to neutralise the residual emissions (to achieve net zero by FY50).
- EUR 100 million investment² to remove and store carbon from the atmosphere through reforestation, restoration of degraded land and better forest management practices.
- Funding and coordinating research, as well as sharing of best practices for responsible forest management.
- Effectively implementing the cascading principle - utilising resources most effectively for different purposes.
- Regulators can proactively consider the value and use of credible voluntary third-party certification schemes such as FSC and multistakeholder initiatives as an additional means of verifying compliance with sustainability and human rights requirements.

Policy movements that can further support:

Increased investments in forestry and nature-based solutions to improve biodiversity and protect natural landscapes. A global funding mechanism to spur investments in nature-based solutions is desirable, and should include:

- Eliminating deforestation and conversion of natural ecosystems via a legal framework.



¹ Commodities and products in scope of the European Union Deforestation-free Regulation will have to meet the corresponding timelines.

² Inter IKEA newsroom, "IKEA invests 200 million euros to speed up action to become climate positive by 2030", 2019

Appendices



Greenhouse gas inventory: scope emissions 1, 2 & 3	Page 48
FY24 progress on external initiatives	Page 49
Climate footprint calculation methodology	Page 50
Air pollution inventory: emissions across the IKEA value chain	Page 53
Air pollution footprint calculation methodology	Page 54

Greenhouse gas inventory: scope emissions 1, 2 & 3

Sum of GHG emissions (tonnes CO ₂ eq)	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Scope 1 On-site generation, fuel combustion and refrigerants	116,529	108,797	105,864	82,423	70,934	69,073	79,685	62,454	66,497
Scope 2 Purchased electricity & heating									
Location-based	430,628	378,856	411,465	405,000	376,680	368,117	368,520	283,118	246,855
Market-based	275,636	226,899	265,810	148,965	83,286	68,716	20,657	13,883	5,418
Scope 3									
1. Purchased goods and services	16,161,879	16,469,068	17,489,238	17,133,958	15,385,333	16,615,125	16,472,069	13,917,369	13,296,377
Food ingredients	864,085	899,309	974,772	891,476	721,033	700,534	867,276	861,316	809,900
Materials	12,117,088	12,313,394	13,256,017	13,086,366	11,825,379	13,624,222	13,450,536	11,209,918	11,019,165
Production	3,124,317	3,189,599	3,209,617	3,099,570	2,803,568	2,245,823	2,108,524	1,802,776	1,424,549
Retail equipment & co-worker clothing	56,389	66,766	48,832	56,547	35,354	44,546	45,733	43,358	42,764
2. Capital goods	0	0	0	0	0	0	0	0	0
3. Fuel- and energy related activities	108,605	73,015	101,862	61,624	56,404	49,830	40,350	30,070	23,188
4. Upstream transportation and distribution	1,311,001	1,516,590	1,565,448	1,484,401	1,290,255	1,441,306	1,411,197	1,131,146	1,130,540
5. Waste generated in operations	53,190	79,700	103,207	87,552	51,432	46,654	36,179	34,069	21,393
6. Business travel	151,261	146,614	152,910	116,824	57,007	14,163	29,555	54,816	47,137
7. Employee commuting	353,421	377,550	394,153	398,111	389,220	428,153	424,375	398,058	390,514
8. Upstream leased assets	0	0	0	0	0	0	0	0	0
9. Downstream transportation and distribution	211,872	247,113	285,454	361,627	303,173	367,160	367,855	371,776	313,557
10. Processing of sold products	0	0	0	0	0	0	0	0	0
11. Use of sold products	7,990,126	7,467,481	7,230,826	6,384,018	5,743,429	5,534,870	4,390,868	3,819,585	3,671,144
12. End-of-life treatment of sold products	2,000,216	1,971,969	2,110,619	2,122,966	1,968,093	2,136,899	1,972,389	1,786,620	1,737,883
13. Downstream leased assets	0	0	0	0	0	0	0	0	0
14. Franchises	816,412	813,631	1,038,155	959,828	809,419	708,040	631,766	716,596	617,833
15. Investments	0	0	0	0	0	0	0	0	0
Grand total (For scope 2 emissions, the market-based value is used for purchased electricity and heating)	29,550,148	29,498,427	30,843,545	29,342,295	26,207,986	27,479,988	25,876,944	22,336,442	21,321,480
Outside the scopes	2,349,199	2,307,777	2,429,459	2,428,053	2,152,532	2,088,690	2,150,899	1,933,590	1,933,534
On-site generation, fuel combustion and refrigerants	420,488	355,503	417,474	477,429	445,418	436,400	487,516	364,684	341,104
Customer travel	1,940,054	1,952,274	2,011,985	1,950,624	1,707,115	1,652,290	1,663,384	1,568,906	1,592,430

FY24 progress on external initiatives

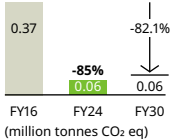
The following is a summary of all IKEA commitments towards external initiatives.

Science Based Targets initiative (SBTi)

The target boundary includes biogenic emissions and removals from bioenergy feedstocks. For greenhouse gas (GHG) emissions from bioenergy, the global warming potential (GWP) of CO₂ is assumed to be zero, while the GWP of CH₄ and N₂O are still included. See listed emission factors in the climate footprint calculation methodology on [page 50](#).

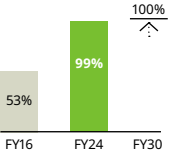
Goal FY30¹Progress FY24

IKEA (Inter IKEA Holding B.V. and its controlled entities) commits to **reduce scope 1 and 2 GHG emissions** by 82.1% by FY30, from a FY16 base year.



Goal FY30Progress FY24

IKEA (Inter IKEA Holding B.V. and its controlled entities) commits to **increase annual sourcing of renewable electricity** from 53% in FY16 to 100% by FY25 and commits to continue active annual sourcing of 100% renewable electricity through 2030.



Goal FY30¹ and FY50¹Progress FY24

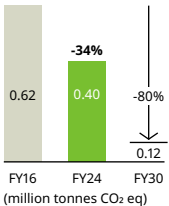
Goal FY30¹: IKEA (Inter IKEA Holding B.V. and its controlled entities) commits to **reduce absolute scope 1, 2 and 3 GHG emissions** by 50% by FY30, from a FY16 base year

Goal FY50 (latest)¹: IKEA (Inter IKEA Holding B.V. and its controlled entities) commits to reaching net-zero GHG emissions across the value chain by FY50.



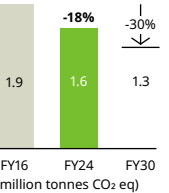
Goal FY30¹Progress FY24

IKEA (Inter IKEA Holding B.V. and its controlled entities) also commits to **reduce scope 3 GHG emissions from franchisees** by 80% by FY30, from a FY16 base year.



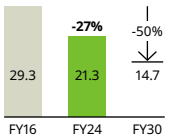
Goal FY30Progress FY24

IKEA (Inter IKEA Holding B.V. and its controlled entities) commits to **reduce absolute scope 3 GHG emissions beyond the minimum boundary from downstream transportation and distribution** (customer travel to stores) 30% by FY30 from a FY16 base year.



Goal FY30¹Progress FY24

IKEA (Inter IKEA Holding B.V. and its controlled entities) finally commits to **reduce remaining absolute scope 3 GHG emissions** by 50% by FY30, from a FY16 base year.

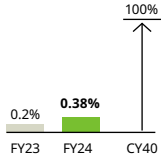


Goal CY40Progress FY24

EV100+ by The Climate

Group: Only procuring zero-emission medium and heavy-duty vehicles (MHDVs).

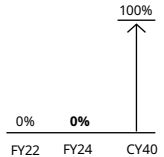
Share of zero-emission medium and heavy-duty vehicles (MHDVs) (% tonne kilometre transported goods)



Goal CY40Progress FY24

Cargo Owners for Zero Emission Vessels (coZEV):

Only purchase zero-emission ocean transport services.



Coolfood Pledge²

The figures below are a summary of the progress versus the IKEA commitment to the Coolfood Pledge. The goal is to, by FY30, aim for at least a 25% absolute reduction in food-related GHG emissions or a 38% relative reduction in food-related GHG emissions per calorie compared to FY16. While our progress against the Coolfood Pledge has been relatively slow, we remain optimistic that the actions outlined in our climate roadmap ([page 31](#)), will help us accelerate progress.

Progress against 25% absolute target (million tonnes CO₂ eq)

	Agriculture supply chain emissions	Carbon opportunity costs	Total	% change since baseline
FY16	1.01	4.13	5.14	-
FY17	0.99	4.03	5.03	-2%
FY18	1.04	4.19	5.23	+2%
FY19	0.88	3.41	4.29	-16%
FY20	0.72	2.77	3.49	-32%
FY21	0.83	3.40	4.24	-18%
FY22	1.09	3.99	5.08	-1%
FY23	1.05	3.95	5.00	-3%
FY30				-25%

Progress against 38% relative target (kg CO₂ eq per 1,000 kcal)

	Agriculture supply chain emissions	Carbon opportunity costs	Total	% change since baseline
FY16	2.53	10.32	12.85	-
FY17	2.46	9.99	12.45	-3%
FY18	2.41	9.73	12.14	-6%
FY19	2.10	8.14	10.24	-20%
FY20	2.04	7.84	9.88	-23%
FY21	2.31	9.45	11.77	-8%
FY22	2.52	9.14	11.66	-9%
FY23	2.49	9.29	11.77	-8%
FY30				-38%

¹ Scope includes scope 1 & 2 emissions for Inter IKEA Group owned operations for IKEA retail and other operations and production (IKEA Industry and IKEA Components).

² The figures presented here differ from those in the rest of the IKEA Climate Report FY24 because its calculation methodology introduces concepts such as the Carbon Opportunity Costs. As this is reported at the beginning of each calendar year, the IKEA Climate Report FY24 covers the progress up until the calendar year 2023.

Climate footprint calculation methodology

Overall

The following is a high-level summary of how the IKEA climate footprint is calculated. The scope covers the entire IKEA value chain. This includes the raw material extraction and processing for the materials or food ingredients used in the IKEA range, how they are produced at our direct suppliers or IKEA owned factories, and then transported to the IKEA stores and warehouses. It covers all IKEA stores, warehouses, offices and other operations, as well as co-worker commuting and business travel. All travel by IKEA customers to IKEA stores is included, as well as any home deliveries, ordered by customers, of products from IKEA stores to their homes. The product use at home is mainly the electricity consumption needed to power our lighting and appliance products, as well as the GHG emissions released when burning candles. Finally, the climate footprint from product end-of-life is included should a product not be recycled but instead incinerated or landfilled. Some agendas are still under development. Until these are integrated into other climate footprints, they are categorised as "Other" for the sake of transparency.

The climate footprint calculations are conducted in line with the GHG Protocol and its guidance documents.

The calculation models are annually reviewed to reflect the IKEA value chain, and its parts, as accurately as possible. Updates could be made due to increasing traceability and gaining access to more supplier-specific information – moving

away from qualified estimations – or that science and accounting standards are improved. Historical data is always revised to ensure that all disclosed performance reflects progress and not a change in accounting.

Emission factors

For used emission factors, please see each separate entry.

We always strive to use the latest values for global warming potentials of reported GHG as defined by the Intergovernmental Panel on Climate Change (IPCC) in its Sixth Assessment Report (AR6). Due to a lag in updates in third-party emission factor databases and for the purposes of comparability, this can differ. As soon as these sources are updated with AR6 values, we will adapt to these and ensure that IKEA climate footprint calculations are conducted in line with the most recent IPCC reports.

For GHG emissions from bioenergy, the global warming potential (GWP) of CO₂ is assumed to be zero, while the GWP of CH₄ and N₂O are still included.

The following types of emission factors may be referenced in the report and are defined below:

- Well-to-Tank (WTT): WTT fuels account for the upstream scope 3 emissions associated with extraction, refining and transportation of the raw fuel sources to the site (or asset) prior to combustion.

- Tank-to-Wheel (TTW): TTW emissions cover all the energy used once transformed. These emissions occur during the combustion of fuels by vehicles.
- Well-to-Wheel (WTW): WTT + TTW together make up WTW GHG emissions.

Materials

The climate footprint of materials is calculated as the cradle-to-gate¹ footprint from raw material extraction and all processing steps and transport up until the gate of our tier 1 suppliers where the IKEA products are manufactured, which are covered under "production". The amount of material is multiplied by an emission factor specific to its recycled content, renewable content, sourcing country (if available) and material company (if available), using ecoinvent and other life cycle assessment (LCA) databases. The emission factors are based on sector averages, which are then modelled based on the amount of traceability and primary data we have available for the supply chain of that material. As more traceability is gained or more primary data is obtained from our material suppliers, the emission factors are continually refined to make them more specific to the IKEA supply chain.

For material amounts, measured data exists for all wood and paper because systems are in place to measure and follow up on at least a yearly level. These represent about three-quarters of the material amounts. For the other material areas, we currently lack systems to follow up, and so we rely

on close collaboration with our direct suppliers to estimate the amounts to the best of our knowledge. As we improve our ability to measure more materials and have to estimate a smaller part of our material usage, the material footprint is subject to change.

However, historical data is always revised for comparability to ensure that any trend is due to improvements of the materials rather than the data quality.

The climate footprint is also subject to change as the emission factors in ecoinvent and other LCA databases are updated from one version to another.

Food ingredients

The climate footprint for food ingredients is calculated in a similar way as materials – from cradle-to-gate to the factory manufacturing the food products. For food ingredient amounts, a system is in place to measure the ingredients per product for the global food range. A majority of the market-specific range is now also measured using the same system. Today, 20% of the total weight sold is estimated due to a lack of recipe-specific data. The climate footprint is also subject to change as the emission factors in ecoinvent and other LCA databases are updated from one version to another.

In FY24, we made the following updates to the methodology:

- The calculation logic was updated based on availability of the market-specific range, reducing

the share of estimated data. This update was conducted for years FY22-FY24. We will also look into revising also historical data but the granularity and sales data prior to FY19 cause issues that will take time to address.

Production

The climate footprint of production is the final step in the supply chain where IKEA home furnishing or food products, components or printed media are produced. It also includes the IKEA owned factories operated by IKEA Industry and packaging and distribution units operated by IKEA Components. The footprint is measured as the scope 1 and scope 2 emissions of each tier 1 supplier or unit, as well as any connected fuel- and energy-related activities (scope 3, category 3). All units provide their primary data on the consumption of energy sources and refrigerants, as well as any renewable energy attributes for purchased energy (electricity and district heating and cooling). The GHG emissions associated with each energy source are calculated using a market-based approach, primarily relying on supplier-specific emission factors and residual mix factors as with other energy-related footprints. As a fallback, standard emission factors are utilised, including those provided by the GHG Protocol for fuel combustion, the UK Department for Energy Security and Net Zero (DESNZ) for upstream emissions from purchased fuels and refrigerants, and the International Energy Agency (IEA) for purchased electricity and heating.

Product transport and logistics services

The climate footprint of product transport is measured as any transport managed by IKEA Supply Chain Operations, IKEA Industry, IKEA Components and IKEA Marketing & Communication. In essence, this is all product transport from our direct supplier to any IKEA unit, as well as product transport between IKEA units. It is measured per shipment for each transport route and calculated in line with GLEC Framework by Global Logistic Emissions Council (GLEC) version 3.0. The emission methodology in this category is in alignment with GLEC Framework by Global Logistics Emissions Council (GLEC) version 3.0.

IKEA retail and other operations

The climate footprint of IKEA retail and other operations covers all IKEA operations (stores, warehouses, offices, etc.) by Inter IKEA Group and the IKEA retail business of each of the IKEA franchisees. It does not include IKEA owned factories operated by IKEA Industry and packaging and distribution units operated by IKEA Components, since these are reported in production.

The footprint is measured as the scope 1 and scope 2 emissions of each unit, as well as any connected fuel- and energy-related activities (scope 3, category 3). All units provide their primary data on the consumption of energy sources and refrigerants, as well as any renewable energy attributes for purchased energy (electricity and district heating or cooling).

Co-worker commuting and business travel

The climate footprint from co-worker commuting is based on the commuting schedule, number of working days and number of employees for Inter IKEA Group, the IKEA franchisee Ingka Group and other IKEA businesses. For business travel, the climate footprint is calculated by our travel agencies and their travel booking systems, which have integrated climate footprint calculations. All climate footprints are calculated using emission factors provided by DESNZ and encompass various modes of travel, including air, rail, public transport, rental cars, private vehicles, taxis and hotel accommodations. Both footprints cover WTW emission factors.

Customer travel and home deliveries

The climate footprint of customer travel is measured at the IKEA store level, based on the number of customers (transactions) and combined with a survey through Brand Capital. The survey provides the average time travelled by customers to the store per mode of transport. The average travel time at the city level per mode of transport is converted into distance. Emission factors for each mode of transport are obtained from DESNZ. WTW emission factors have been applied to the climate model for both the customer travel and home deliveries footprints.

A hybrid-based approach using fuel and/or distance, based on data availability, has been used to arrive at last-mile emissions. Data for certain IKEA franchisees has been estimated where unavailable.

Product use at home

The climate footprint of product use at home is based on the energy consumption for the home use of IKEA lighting, home appliances and home electronics as well as the burning of candles. Smart home products from IKEA are currently excluded from the footprint. The energy consumption is measured in line with the GHG Protocol as the energy consumption throughout the product's lifetime. Since, in principle, all energy consumption is electricity consumption, the climate footprint is calculated by multiplying the energy consumption with that of the national electricity grid for the specific country in which the product was sold. For candles, the climate footprint is calculated by multiplying the amount of wax (in terms of weight) by the specific emission factor for combustion for the specific wax (emission factors provided by the GHG Protocol).

To calculate the share of renewable electricity, a location-based approach is used since we cannot track the specific electricity contract of each customer.

In FY24, the following changes were made.

- Inclusion of additional upstream emissions: Previously only the emissions from the power plant per se were included. Now, we have a truer emission factor by including emissions connected to transmission and distribution and any upstream emissions of used fuels.

This has been revised for historical FYs as well and accounted for a quite significant increase in our baseline emissions.

We're now investigating methodologies to also account for use-phase emissions for some home smart products – e.g., batteries, speakers, air purifiers, etc. – currently not accounted for.

Product end-of-life

The climate footprint for product end-of-life is calculated in a similar way to that of materials. The big difference is the scope, which is the grave (end-of-life) footprint, not the cradle-to-gate we use for materials. The weight of material in products sold is multiplied by an end-of-life emission factor specific to that material and the country's average waste handling in each IKEA market.

Currently, no consideration in the model is taken for how the product has been designed for recycling or the specific waste-handling infrastructure at the IKEA store level.

The climate footprint is subject to change as the accuracy of the amount of materials increases and the emission factors in ecoinvent and other LCA databases are updated from one version to another.

In FY24, an additional logic was implemented in the model to ensure that some material categories could not fall under certain waste categories, i.e., metals and appliances not ending up in composting. Previously there was a general percentage of all material categories that could end up in composting: now, they are diverted to landfill instead if deemed unfeasible.

Other

In addition to the climate footprints above, there are areas currently not as actively addressed. Until the agendas of these mature and they are integrated into the other climate footprints, they are kept under the category "Other". This includes capital goods, waste generated in operations, and material for retail equipment and co-worker clothing. For transparency purposes, these footprints are calculated and disclosed.

Air pollution inventory: emissions across the IKEA value chain

Air pollutants (tonnes)	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Materials	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food ingredients	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Production									
PM2.5	1,877	1,743	1,897	2,038	1,752	1,479	1,541	1,327	1,114
NH ₃ (Ammonia)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SO ₂ (Sulphur dioxide)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NOx (Nitrogen oxides)	4,064	4,000	4,138	4,056	3,691	3,171	3,346	3,070	1,607
NM VOC (Non-methane volatile organic compounds)	3,490	3,132	3,429	3,939	3,421	2,949	3,091	2,600	2,351
Product transport & logistics services									
PM2.5	626	622	631	596	549	636	710	564	575
NH ₃ (Ammonia)	37	37	31	30	30	32	40	32	30
SO ₂ (Sulphur dioxide)	2,523	2,543	2,668	2,510	1,580	1,410	1,501	1,078	1,076
NOx (Nitrogen oxides)	11,349	11,437	11,007	10,418	9,427	11,043	12,348	10,034	11,349
NM VOC (Non-methane volatile organic compounds)	321	323	269	253	234	271	332	266	297
IKEA retail and other operations									
PM2.5	43	44	46	46	42	43	47	46	47
NH ₃ (Ammonia)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SO ₂ (Sulphur dioxide)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NOx (Nitrogen oxides)	553	561	589	568	529	528	532	488	489
NM VOC (Non-methane volatile organic compounds)	9	9	10	10	9	9	11	10	8
Co-worker commuting and business travel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Home deliveries									
PM2.5	174	204	235	298	249	301	304	302	228
NH ₃ (Ammonia)	2	2	2	3	2	3	3	3	2
SO ₂ (Sulphur dioxide)	0	0	0	0	0	0	1	2	11
NOx (Nitrogen oxides)	2,456	2,875	3,319	4,201	3,516	4,245	4,293	4,257	3,203
NM VOC (Non-methane volatile organic compounds)	559	655	756	956	801	966	977	969	728
Product use at home									
PM2.5	473	472	480	458	427	418	375	384	342
NH ₃ (Ammonia)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SO ₂ (Sulphur dioxide)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NOx (Nitrogen oxides)	4,346	4,083	4,042	3,668	3,289	3,178	2,584	2,296	2,125
NM VOC (Non-methane volatile organic compounds)	64	61	62	60	56	55	49	47	43
Product end-of-life									
PM2.5	721	685	763	851	784	888	809	1,470	1,395
NH ₃ (Ammonia)	519	535	562	611	593	649	601	1,405	1,346
SO ₂ (Sulphur dioxide)	205	214	221	202	193	209	189	364	349
NOx (Nitrogen oxides)	2,601	2,713	2,791	2,572	2,457	2,651	2,401	4,630	4,436
NM VOC (Non-methane volatile organic compounds)	3,881	3,658	4,199	4,724	4,372	4,967	4,520	8,064	7,621

Air pollution footprint calculation methodology

Overall

We're aware that key parts of the value chain are missing in our air pollutant emissions inventory – especially materials and food ingredients – but our aim is to be transparent about the impact we can confidently disclose today to raise awareness about the importance of disclosing and addressing air pollution. Each entry within this section will specify the scope and methodology used in the FY23 calculation. As we learn, and as the guidance further improves, the air pollution inventory will likewise improve.

The air pollution footprint calculations are conducted in line with "[A Practical Guide for Business: Air Pollutant Emission Assessment](#)" by Climate and Clean Air Coalition and Stockholm Environment Institute (hereafter referred to as "the Guide"), which Inter IKEA Group played a part in developing.

The calculation models are reviewed annually to reflect the IKEA value chain and its parts as accurately as possible. Updates could be made due to increasing traceability and gaining access to more supplier-specific information – moving away from qualified estimations – or that science and accounting standards are improved. At all times, all historical data is revised to ensure that all disclosed performance reflects progress and not a change in accounting.

There is currently no guidance on how to calculate the air pollution footprint using a market-based approach for renewable energy consumption. Therefore, the air pollution inventory is calculated based on a location-based method, mainly relying on grid-average data.

We aim to disclose the impact on both climate and clean air in the actions we take in our climate agenda, where feasible.

While the creation of this inventory is a very important first step, there were also three key limitations and challenges that we faced during this first year:

1. The Guide covers six key emitting sources that can contribute to air pollutant emissions across a company's value chain. These include electricity consumption, stationary fuel combustion, transport, industrial processes, agriculture and waste. Due to time and data constraints, the IKEA inventory currently covers four out of these six key emitting sources (e.g., all sources apart from agriculture and industrial processes).
2. Emission factors were not available in the European Monitoring and Evaluation Programme (EMEP)/European Environment Agency (EEA) Guidelines for some key activities that are part of the IKEA value chain, specifically for the processing of raw materials into materials. This means that not all air pollutant emissions could be covered under industrial processes of materials.
3. For transport, a simplified model was used to quantify emissions, which can introduce uncertainty in the air pollutant emissions occurring from this specific source.

As outlined in the best practices within the guidance for inventory compiling, these limitations and challenges have been mapped and clearly identified by the team that has been working to quantify air pollutant emissions across the IKEA value chain, and

we will be working to improve and further refine the existing inventory.

Emission factors

All emission factors used are provided by the Guide. The Guide's emission factors come from EMEP/EEA's air pollutant emission inventory guidebook 2019. In addition to the emission factors provided by the Guide and EMEP/EEA, a few additional adjustments have been made to create the air pollution reference data used for the inventory:

- Electricity consumption: The inventory has been based on tier 1 emission factors on different types of fuel used to generate electricity provided in the Guide. To create country-specific emission factors for each air pollutant, fuel mix data for electricity output from the International Energy Agency (IEA) relates to respective tier 1 emission factors to calculate a weighted average.
- Stationary fuel combustion: Air pollutants for this scope have been based on the tier 1 default emission factors for stationary fuel combustion provided in the Guide. No additional adjustments have been made, but only mapped to the respective fuels in activity data.
- Waste: Default emission factors for different tier 1 waste treatment methods from the Guide have been used for the inventory. These waste treatment methods have been mapped to the treatment method share per country from "OECD: Environment/Waste/Municipal Waste – Generation and Treatment" to calculate country-specific emission factors.

Materials

Air pollution from materials is currently not included in our disclosure due to limitations in data available to measure the footprint sufficiently and accurately, and not all industrial processes found in cradle-to-gate LCAs of materials used in the IKEA range are today covered by the emission factors provided by the Guide.

As data availability within IKEA increases and the completeness of industrial processes in the air pollution guidance increases, it will also enable us to disclose the air pollution footprint from materials.

Food ingredients

Air pollution from food ingredients is currently not included due to limitations in data available to measure the footprint sufficiently and accurately.

Production

The air pollution footprint of production is the final step in the supply chain where the IKEA home furnishing or food products, components or printed media are produced. It also includes the IKEA owned factories operated by IKEA Industry and packaging and distribution units operated by IKEA Components.

The footprint is based on any on-site generation of energy and any purchase of energy (e.g., electricity, heating, etc.) corresponding to the scope 1 and scope 2 emissions in the GHG Protocol of each tier 1 supplier or unit. All units provide their primary data on the consumption of energy sources, as well as any renewable energy attributes for bought energy (electricity and district heating or cooling).

The related air pollution for each energy source is calculated using emission factors provided by the Guide.

Product transport and logistics services

The air pollution footprint of product transport is measured as any transport managed by IKEA Supply Chain Operations, IKEA Industry, IKEA Components and IKEA Marketing & Communication. In essence, these are all product transports from our direct supplier to any IKEA unit, as well as product transports between IKEA units.

It is measured per shipment for each transport route and calculated by using the EMEP/EEA's air pollutant emission inventory guidebook 2019.

The air pollution for logistics services is based on any on-site generation of energy and any purchase of energy (e.g., electricity, heating, etc.) corresponding to the scope 1 and scope 2 emissions in the GHG Protocol. It does not currently include stationary fuel combustion. The scope includes distribution units owned by Inter IKEA Group and those operated by IKEA Franchisee Ingka Group.

IKEA retail and other operations

The air pollution footprint of IKEA retail and other operations covers all IKEA operations (stores, warehouses, offices, etc.) by Inter IKEA Group and the IKEA retail business of each of the IKEA franchisees. It does not include IKEA owned factories operated by IKEA Industry and packaging and distribution units operated by IKEA Components, since these are reported in production.

The footprint is based on any on-site generation of energy and any purchase of energy (e.g., electricity, heating, etc.) corresponding to the scope 1 and scope 2 emissions in the GHG Protocol of each tier 1 supplier or unit. All units provide their primary data on the consumption of energy sources, as well as any renewable energy attributes for bought energy (electricity and district heating or cooling). The related air pollution for each energy source is calculated using emission factors provided by the Guide.

Air pollution from stationary fuel combustion is currently not included in our disclosure. While we have activity data for the scope of operations connected to this footprint, work remains to be done to connect the applicable air pollutant emission factors.

Co-worker commuting and business travel

Air pollution has not been calculated for co-worker commuting, as an accurate model has yet to be developed.

Customer travel and home deliveries

For emissions from home delivery, the air pollutant factor for trucks less than 7.5 tonnes from EEA is considered representative of the trucks the IKEA business uses. In case the Euro class types are unknown, the average is considered. Air pollutants factors for FY16–24 are based on EMEP/EEA's guidebook. The distance per fuel type is multiplied by the respective fuel type per emission factor.

Product use at home

The air pollution footprint of product use at home is based on the energy consumption at home for lighting, home appliances, and home electronics. The burning of candles is currently excluded. Smart home products from IKEA are currently excluded from the footprint.

The energy consumption is measured in line with the GHG Protocol as the energy consumption through the product's lifetime. Since, in principle, all energy consumption is electricity consumption, the air pollution footprint is calculated by multiplying the energy consumption with a country-specific emission factor. This is calculated using energy mixes provided by the IEA (purchased electricity) and energy source-specific emission factors for the generation of electricity provided by the Guide.

Product end-of-life

The air pollution footprint for product end-of-life is calculated in a similar way to that of materials. The big difference is the scope, which is the grave (end-of-life) footprint, not the cradle-to-gate we use for materials. The weight of material in products sold is multiplied by an end-of-life emission factor specific to that material and the country's average waste handling in each IKEA market. Currently, no consideration in the model is taken to how the product has been designed for recycling or the specific waste-handling infrastructure at the IKEA store level.