PLANET PASSIONATE REPORT

2024



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About this Report

This is Kingspan Group PLC's ("Kingspan") fifth annual Planet Passionate report (the "Report"), which covers the period 01.01.2024 to 31.12.2024. This Report was published in February 2025, and it covers the same period as Kingspan's 2024 Annual Report (01.01.2024 – 31.12.2024). The Report covers all entities that are fully consolidated in our financial statements.

The focus of this Report is Planet Passionate - our flagship environmental sustainability programme. Detailed information about our sustainability performance, including among others, our material Impacts, Risks and Opportunities (IROs) on people and the environment and the material effects of sustainability matters on our performance are available in the European Sustainability Reporting Standards (ESRS) section of our Annual Report.

Kingspan is committed to collecting and presenting accurate and reliable information. We have also sought independent, external assurance for several Key Performance Indicators (KPIs), including our greenhouse gas (GHG) emissions, our total energy use, and waste generation. The results of this engagement can be found in the external assurance statement (page 56). Any restatements of information are clearly highlighted in the relevant sections.

For any enquiries, comments or recommendations about the Report or any other issues pertaining to Kingspan's approach to sustainability, please contact us at planetpassionate@kingspan.com.

Additional Publications



Planet Passionate Report 2024 - Summary
The Report summary presents key data and highlights and is available in four languages: English, French, German and Spanish.



European Sustainability Reporting Standards (ESRS)
The sustainability information we disclosed in accordance with ESRS is available in the relevant section of our 2024 Annual report.



A MESSAGE FROM OUR CEO



Innovation and continuous improvement are at the heart of our DNA. We are committed to providing a comprehensive range of innovative solutions that help our customers reduce the environmental impact of their buildings.

Gene Murtagh
CEO, Kingspan Group PLC

I am delighted to introduce our fifth annual Planet Passionate report, which highlights our progress and key achievements in 2024. This year, we saw the climate crisis unfold at an alarming speed. Global greenhouse gas emissions continued to rise, and for the first time, average temperatures exceeded the 1.5°C threshold established by the 2015 Paris Agreement to limit warming compared to pre-industrial levels. We must all take immediate and decisive action to prevent irreversible damage to our planet.

The buildings and construction sector account for approximately 37% of global GHG emissions annually, placing us in a pivotal position in the climate transition.

Our pledge is our Planet Passionate programme, which is focused on urgently addressing our most significant environmental impacts in alignment with a 1.5°C trajectory. At the same time, we are rapidly bringing new, Lower Embodied Carbon (LEC) solutions to the market to support our customers in decarbonising both new and existing buildings.

Throughout the year, we made strong progress towards our Planet Passionate targets, completing over 150 projects in 2024 and 400+ since 2020. We achieved three of our targets ahead of schedule; 20% on-site renewable energy generation, recycling the equivalent of 1 billion PET bottles into our manufacturing processes annually and supporting 5 ocean clean-up projects.

Since 2020, we have reduced our scope 1 and 2 GHG emissions by 61%, installed solar PV systems on 57% of our wholly owned sites and deployed 58 rainwater harvesting systems. Additionally, we implemented over 250 initiatives in collaboration with our local communities via our Planet Passionate Communities programme.

As a rapidly growing business, we have experienced significant expansion since launching the programme in 2020, both through organic growth and acquisitions. Looking ahead to 2025–2030, we updated the programme to reflect current and future growth trajectory. This includes the addition of three new targets to replace those achieved ahead of schedule and the adjustment of our existing carbon targets.

The new targets focus on enhancing energy efficiency, increasing our use of recycled and renewable raw materials, and implementing product takeback and recycling schemes across key markets.

Innovation and continuous improvement are at the heart of our DNA. We are committed to providing a comprehensive range of innovative solutions that help our customers reduce the environmental impact of their buildings — whether it is emissions reduction, enhancing circularity performance, or generating renewable energy. Since 2020, we have introduced 17 new lower embodied carbon products across our diverse portfolio, 12 of which were launched throughout 2024. We also expanded our bio-based product range through the acquisition of the majority stake of STEICO, the global leader in wood fibre insulation.

Five years into our Planet Passionate programme, the progress we have made has been truly remarkable. Our teams across the business have worked tirelessly to help us achieve our goals and stay aligned with our mission. Yet, our work is far from over. We remain committed to making continued progress, reducing our impact, and adapting to both internal and external changes to ensure that we continue to lead the way on climate action within our sector. I invite you to explore the rest of this report, which encapsulates who Kingspan is and what we strive to accomplish.

Gene Murtagh
CEO, Kingspan Group PLC

PLANET PASSIONATE
PROGRESS IN NUMBERS

400+
PROJECTS SINCE 2020

We are delighted to showcase the progress we've achieved, not just in 2024, but throughout our Planet Passionate journey so far. To every colleague who has contributed to our ongoing success – thank you for being the heart of our mission!

GHG EMISSIONS[1]

w/acquisitions
61%
Scope 1 & 2 GHG emissions reductions since 2020

underlying
80%

w/acquisitions
14%
Scope 3 GHG emissions reductions since 2020

ON SITE GENERATION

TARGET ACHIEVED

30%
On-site renewable energy

57%
Wholly-owned sites have solar PV systems installed

PET BOTTLES*

TARGET ACHIEVED

4bn+
Recycled since 2020

1.1bn
Recycled in 2024

PRODUCTS & BRANDS

19
LEC & BioKor products to date

2
New brands launched to date

COMMUNITIES PROJECTS

250+
Planet Passionate Communities projects to date

OCEAN CLEAN-UP

TARGET ACHIEVED

5
Ocean clean-up projects supported since 2020

1: Scope 1&2 GHG emissions. Excluding biogenic emissions. Scope 2 GHG emissions calculated using market-based methodology.
*equivalent no. of PET bottles by weight

KINGSPAN
WHO WE ARE

Our mission is to help accelerate a net zero built environment with people and planet at its heart.

Founded and headquartered in Kingscourt, Co. Cavan, Ireland, Kingspan is a global business operating in over 80 countries and with over 27,000 employees.

Our business model and strategic pillars enable the ongoing conversion to ultra-efficient building envelopes, from outdated, inefficient methods of construction. Through our continuous development of innovative and proprietary technology, we have created a portfolio of products which create value across a number of key metrics. Critically, through the differentiated thermal performance of our innovative solutions, we help design teams, architects and ultimately our customers play their part in tackling climate change.

Our Strategic Pillars

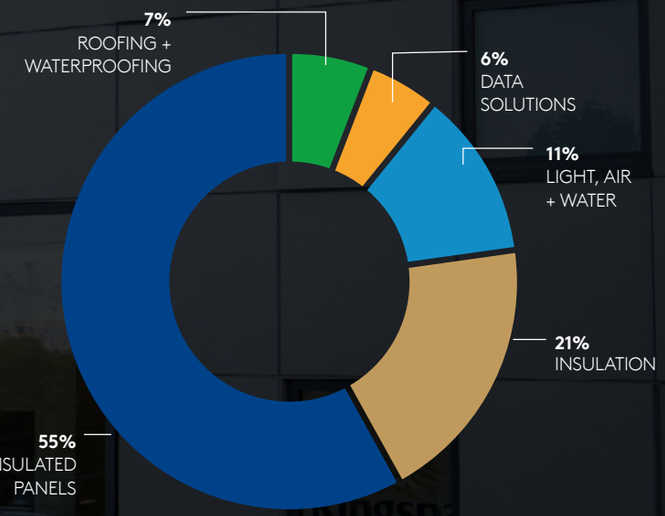
Our core values of honesty, integrity and compliance with the law, are the foundations upon which our strategic pillars sit. For more information on our values and strategic goals, please see our Annual Report.

- **Innovation**
- **Planet Passionate**
- **Global**
- **Completing the Envelope**

At a Glance

80+ Countries	**273** Manufacturing sites	**27,000+** Employees	**5** Operating Divisions
€75.5m Investment in innovation	**€8.6bn** revenue	**42%** EU taxonomy revenue aligned	**€907m** Trading profit

5 Divisions



Note: Divisional breakdown based on product sales.

KINGSPAN
WE ARE PLANET PASSIONATE

We are continuously growing and evolving, working to accelerate progress towards a net zero emissions built environment.

Acquisitive growth is an important element of Kingspan's development strategy. Acquisitions, all of which align with our strategic criteria, undergo extensive integration procedures and are supported by the Group Sustainability team for performance improvements post-acquisition. This extends to our Planet Passionate programme; all acquisitions are expected to help us meet our ambitious targets.

At the same time, acquiring new businesses has a material impact on our Planet Passionate performance. To allow for a more meaningful comparison and assessment of our progress, we are reporting on our Planet Passionate progress against targets for both our underlying business (the business from our 2020 base year plus organic growth) and whole business (underlying business plus acquisitions).

The most significant company that joined the Kingspan family in 2024 is:

STEICO SE
A global leader in wood fibre insulation and a leading supplier of innovative timber-based construction products. For more information about STEICO see page 43.

KINGSPAN
HOW WE CREATE VALUE

Our Strategic Pillars

- Innovation
- Planet Passionate
- Global
- Completing The Envelope

Key inputs

Metals | Chemicals | Mineral Fibre | Timber

273

In 2024, we operated 273 manufacturing sites

Energy use

FUELS	77%
ELECTRICITY	23%

Employees

MALE	78%
FEMALE	22%

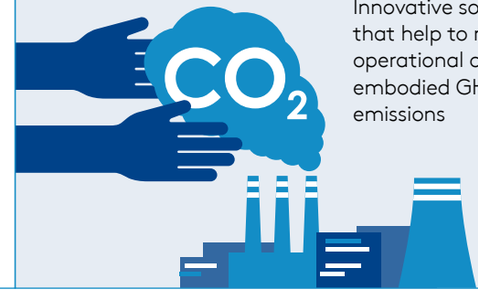
Business activities

Completing the envelope

We believe buildings should:



Sustainably innovating



Innovative solutions that help to reduce operational and embodied GHG emissions

Main outputs

1. **Insulated panels**
   - Insulated panel building envelopes
   - PowerPanel
2. **Insulation**
   - Insulation boards
   - Piping and ducting insulation
   - Bio-based insulation
3. **Light, Air + Water**
   - Daylighting solutions
   - Natural ventilation
   - Smoke management solutions
   - Water preservation and protection solutions
   - Energy management solutions
4. **Data Solutions**
   - Raised access flooring
   - Data centre airflow management systems
5. **Roofing + Waterproofing**
   - Roof membranes and roofing components
   - Single component membrane solutions and combined systems

Key outcomes

Carbon

172m tCO_2e
Estimated lifetime carbon savings from insulated systems sold in 2024

7.3m tCO_2e
Kingspan's 2024 value chain carbon footprint

Natural light

3.8bn lumens
Our daylighting systems sold in 2024 create 3.8 billion lumens of natural light annually

470k
Enough to light up 470 thousand homes[1]

Water conservation

44.1bn litres
Over 44.1 billion litres of rainwater will be harvested by our tanks produced in 2024

550m
Enough to fill over 550 million baths

Circularity

1,102m
In 2024 alone, we recycled 1,102 million waste plastic bottles[3]

5 times
Enough recycled bottles to circle Earth over five times

[1] Assumes 10 x 60W bulbs per home
[2] Assumes a 20-year product life
[3] Equivalent no. of PET bottles by weight

OUR APPROACH TO SUSTAINABILITY

For us it is clear, we must find ways to grow our business while minimising negative environmental impacts.

Doing business across the world comes with important responsibilities that extend beyond running a profitable business. As we face unprecedented environmental and social challenges, we must all scale up our actions to ensure that we thrive within planetary boundaries and become a more just society in the process.

The built environment has an important role to play in combatting both climate change and environmental degradation, and we pledge to play our part. In practice, this means addressing our most material impacts at pace. Our scope spans across our value chain 'from raw materials to end of product use'. This value chain includes many forms of capital, from the vital natural resources needed to manufacture our products, through to the financial capital raised from the sale of these products.

We must also continue to innovate and enhance the environmental performance of our products to help support the urgent acceleration of net zero carbon buildings, both new and existing at scale. Achieving real and lasting change is only possible through the collective efforts of everyone who works at Kingspan, our partners and suppliers, NGOs, governments, local communities and other stakeholders.

Supporting the SDGs

Kingspan aims to support the UN's Sustainable Development Goals (SDGs) through our constant development of solutions that enable building owners to consume less resources.

We do this whilst also driving our Planet Passionate vision, which aims to advance our environmental performance across the areas of carbon, energy, circularity and water.

Throughout this Report we demonstrate how our initiatives, and the progress we made in 2024, contributed to the SDGs that are most closely related to our activities and business model.

SUSTAINABLE DEVELOPMENT GOALS

SDGs that are most closely linked to Kingspan's operations:



Addressing our impacts

To address our most material environmental impacts, we have designed and developed several strategies, policies, targets, and action plans.

Our efforts are spearheaded by our environmental sustainability programme, Planet Passionate. Through Planet Passionate Communities, the societal and philanthropic arm of Planet Passionate, we are also expanding our efforts to create value to society and the local communities where we operate. For more details on the results of our Double Materiality assessment along with our approach to manage our material Impacts, Risks and Opportunities (IROs), see ESRS section of our Annual Report.

Responsible supply chain

Kingspan continues to develop its ethical and environmental strategy for procuring materials and services.

PLANET PASSIONATE

We seek to build and maintain long term relationships with key suppliers and contractors to ensure that they are aligned to the same goals and standards as Kingspan, to address strategic global issues, emerging trends and ultimately our customer needs.

This approach, which has divisional and regional variances based on the local requirements and materials, is continually evolving to align with core social, ethical and environmental standards. In all cases, we aim to foster an environment of collaboration.

In 2024, in addition to our Group Supplier policy, which was adopted in 2022, we developed our 'Supplier Human Rights and Environmental Due Diligence' (SHREDD) policy and process. This policy, and tools such as EcoVadis, helps us identify and prioritise actual and potential risks to human rights and the environment related to our business activities, products, and relationships. Through SHREDD, we proactively seek to address, prevent, and mitigate impacts on individuals, communities, and the environment.

SUSTAINABILITY
GOVERNANCE

Our Chief Executive Officer (CEO) is the most senior person responsible for sustainability related issues. This responsibility has been embedded at the top of the chain of command to ensure sustainability related issues are considered when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets, business plans and assessing progress against goals and targets.

The CEO is supported in this role by the Chief Sustainability, Digital and Marketing Officer (CSDMO) and the Executive Directors who are responsible for ensuring that issues are monitored at divisional level and that any significant issues are reported back to the Board at the bi-monthly Board meetings.

Management oversight
Kingspan is currently broken into fifteen operating businesses for Planet Passionate purposes. Managing directors within each business unit at global, regional, and local level have sustainability objectives linked to their function to support the delivery of our Planet Passionate agenda. Each of these operating businesses are reviewed monthly by the senior management teams across each division, with at least two executive directors, including the CEO.

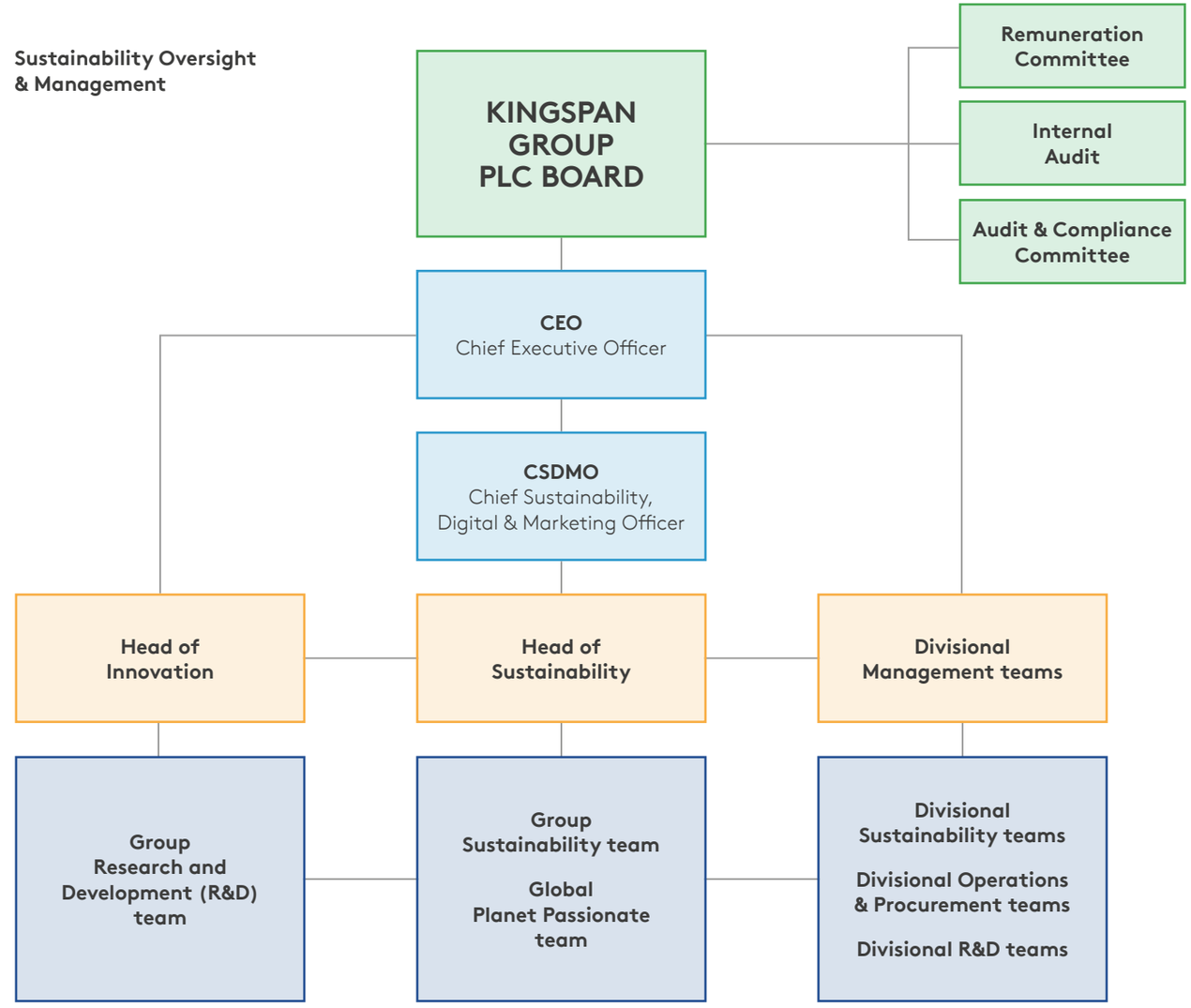
These senior teams have representatives including managing directors, finance, technical, operational, and commercial directors. At these business reviews, risks and opportunities that are assessed as significant can be brought to the attention of the executive directors and are assessed on a division wide, and potentially Group-wide basis.

Sustainability structure
The CSDMO reports directly to the CEO and the Group Board annually on, among other things, progress against our Planet Passionate objectives. The Head of Sustainability, who reports directly to the CSDMO, is responsible for the development, management, and oversight of key environmental initiatives across the global business.

The Group Sustainability team reports to the Head of Sustainability, supported by the Global Planet Passionate team, which consists of 15 representatives from across the business units.

The Planet Passionate divisional representatives are responsible for driving the sustainability strategy across their division, and management of the divisional level sustainability teams.

Sustainability Oversight & Management



PLANET PASSIONATE

At Kingspan, our mission is to help accelerate the transition to a net zero emissions built environment, with people and planet at its heart. This mission is driven by our comprehensive global environmental sustainability programme which sets ambitious targets across four key focus areas: Carbon, Energy, Circularity & Water. Through this programme, we aim to address three major global challenges: Climate change, Circularity, Protection of the natural world.

We believe that advanced materials, building systems, and digital technologies are crucial in addressing these global challenges, and we are committed to playing our part. By partnering with industry and leveraging our innovation strategy, we aim to support and accelerate the transition to a resource-efficient future, powered by renewable energy.

Our global environmental sustainability programme aims to help tackle Climate Change, Circularity and Protection of the Natural World.

4

FOCUS AREAS

3

GLOBAL CHALLENGES

Kingspan | PLANET PASSIONATE

PLANET PASSIONATE
OUR ENVIRONMENTAL SUSTAINABILITY PROGRAMME

At Kingspan, we are deeply committed to environmental sustainability and the Planet Passionate programme is a pillar of our company strategy.

Our approach
We recognise that our Planet Passionate targets are ambitious and will be challenging to achieve. However, we are unwavering in our dedication to making meaningful progress. In 2024, we further developed our programme and roadmap, incorporating target-specific strategies and timelines to effectively manage and track our progress.

Management
Our approach to the general management of the programme builds on strong internal procedures and processes that were developed throughout the years. Our Planet Passionate team consists of 15 business representatives from all business units. Each business unit has a primary representative on the Global Planet Passionate team, as well as micro-teams to champion the Planet Passionate strategy across the business.

The Global Planet Passionate team meets on a quarterly basis to discuss progress and to facilitate peer-to-peer learning. We have also developed multiple working groups to help address specific challenges related to our targets, including renewable heat, waste and zero emission car rollout.

Green Finance
In September 2020, Kingspan entered a €750m sustainability-linked Private Placement ("Green PP") with a syndicate of predominantly US institutional investors. The Green PP had a weighted average maturity of 9.7 years when executed. At the time, this was the largest Green private placement ever arranged globally.

In June 2021, Kingspan entered a €700m (subsequently extended to €800m) sustainability-linked Revolving Credit Facility ("Green RCF") with 10 international banks. The Green RCF matures in May 2027 with the option to extend to May 2028. In October 2024, Kingspan released a Green Finance Framework to go along with Kingspan's new European Medium Term Note programme. The Framework gives Kingspan the ability to raise Green Use of Proceed bonds in the future.

Both the Green PP and Green RCF have embedded pricing mechanisms which reduce the cost of borrowing where Kingspan achieves sustainability targets specified in its Planet Passionate strategy. Kingspan's performance against these sustainability targets is subject to an independent audit.

Remuneration
In 2021, Kingspan Group introduced an additional ESG measure in its Performance Share Plan (PSP) framework, recognising the importance of non-financial measures to both short- and long-term performance. The measure is based on a number of the Planet Passionate targets against 10% of the annual PSP award.

Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate targets.

Internal engagement
Our commitment to sustainability aligns with our employees' values, and we aim to empower them to be Planet Passionate both in their professional and personal lives. To help continually educate and keep our colleagues up to date, we have developed a suite of educational e-learning modules on Planet Passionate related topics, such as climate change and circular economy. Our Planet Passionate Employee Guide E-learning module provides employees an overview of our environmental sustainability programme.

Our divisional Communication Champions help to facilitate the communication of any updates about our Planet Passionate initiatives to all departments within the Group. During 2024, our employees conducted Planet Passionate related projects at our locations around the world including local clean-up projects, wellbeing and education events, as part of our Planet Passionate Communities programme.

For information about our Planet Passionate Communities initiatives see page 45.

PLANET PASSIONATE GOAL

The programme's overarching goal is to contribute to the development of high-performance projects, with reduced environmental impacts



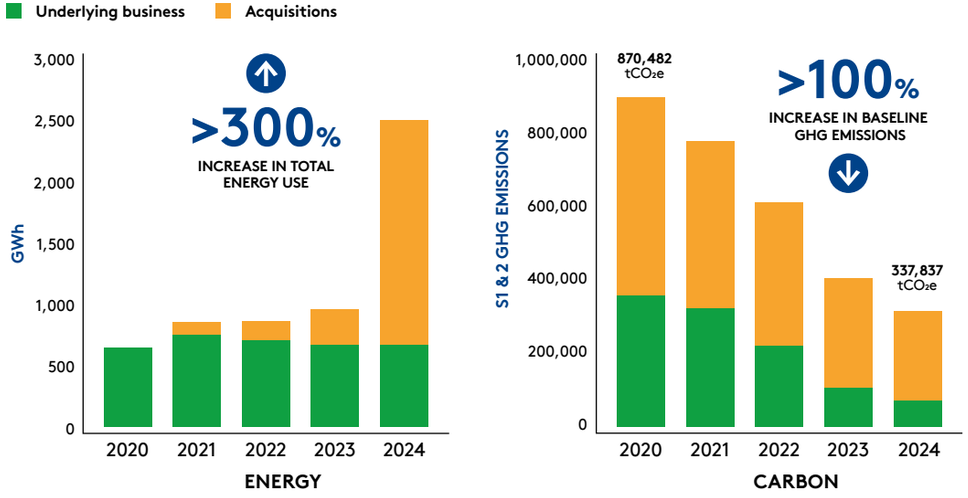
PLANET PASSIONATE
TARGET PROGRESS 2024

		UNDERLYING BUSINESS[1]						WHOLE BUSINESS[2]				
	Target	Target Year	2020	2021	2022	2023	2024	Progress towards target	2020	2021	2022	2023	2024
CARBON	Net Zero Carbon Manufacturing (scope 1 & 2 GHG emissions[3] - tCO_2e)	2030	409,746[4]	389,167[4]	243,714[4]	111,596[4]	82,865	89%	870,482[4,5]	877,294[4,5]	689,103[4,5]	463,455[4,5]	337,837[5]
	50% reduction in product CO_2e intensity from primary supply partners (% reduction)	2030	-	1.6[4]	3.1[4]	4.1[4]	3.9	7.8%	-	1.6[4]	3.1[4]	4.1[4]	3.9
	Zero emissions company funded cars[6] - annual replacement (%)	2025	11	29	60	70	89	89%	11	28	58	69	86[7]
ENERGY	60% Direct Renewable Energy (%)	2030	19.9[4]	26.1[4]	35.1[4]	38.8[4]	43.3	72%	19.9[4]	25.3[4]	34.5[4]	35.1[4]	59.4
	20% on-site renewable energy generation (%)	2030	4.9	5.1	7.4	9.9	10.2	51%	4.9	4.9	7.3	8.8	30.3
	Solar PV systems on all wholly owned sites (%)	2030	20.7[4]	28.4[4]	39.6[4]	53.6[4]	64.0	64%	20.7[4]	24.8[4]	33.9[4]	49.6	56.8
CIRCULARITY	Zero company waste to landfill (tonnes)	2030	18,622[4]	16,088[4]	9,800[4]	8,288[4]	7,088	62%	18,622[4]	16,903[4]	11,546[4]	12,393[4]	12,536
	Recycle 1 billion PET bottles into our manufacturing processes annually (million bottles)	2025	573	843	803	858	1,102	100%	573	843	803	858	1,102
	QuadCore® products utilising recycled PET (no. of sites)	2025	1	1	3	8	12	75%	1	1	3	8	12
WATER	Harvest 100 million litres of rainwater annually (million litres)	2030	20.1	20.5	27.3	56.4	62.1	62%	20.1	20.5	27.4	56.7	63.2
	Support 5 ocean clean-up projects (no. of projects)	2025	1	2	3	4	5	100%	1	2	3	4	5

1 Underlying Business includes manufacturing, assembly and R&D sites within the Kingspan Group in 2020 and all organic growth to date.
2 Whole Business includes manufacturing, assembly, and R&D sites within the Kingspan Group, excluding acquisitions made after 30th September 2024 and three minor sites acquired in 2023, which have negligible environmental impacts due to data unavailability.
3 Excluding biogenic emissions. Scope 2 GHG emissions calculated using market-based methodology.
4 Restated figures due to improved data collection, change in calculation methodologies and site disposal.
5 GHG emissions were recalculated due to acquisitions that occurred in 2021 through to 30th September 2024.
6 Kingspan defines a 'zero emissions car' as a vehicle with zero tailpipe emissions. The boundary does not include the energy used to power the vehicle or the embodied emissions from manufacturing.
7 Due to data unavailability, STEICO and Mineral Insulation are excluded.

PLANET PASSIONATE
PROGRAMME UPDATE 2025–2030

BUSINESS GROWTH



In line with our strategic pillars of "Globalisation" and "Completing the Envelope", our global manufacturing footprint has increased by more than 50% since 2020, with the addition of over 80 new sites through organic growth and acquisitions.

This growth includes the addition of the new Roofing + Waterproofing division and the acquisition of a majority stake in STEICO, the global leader in wood fibre insulation. As a result, our business growth has led to more than a 300% increase in annual energy consumption since 2020.

Following the GHG Protocol's relevant guidance, we have recalculated our base year scope 1, 2 and 3 GHG emissions to include emission sources from acquisitions. As a result, our base year (i.e. 2020) scope 1 and 2 GHG emissions effectively doubled (see graph above). Moving forward, we will continue to evaluate the programme, and review targets every five years to reflect the pace of business growth.

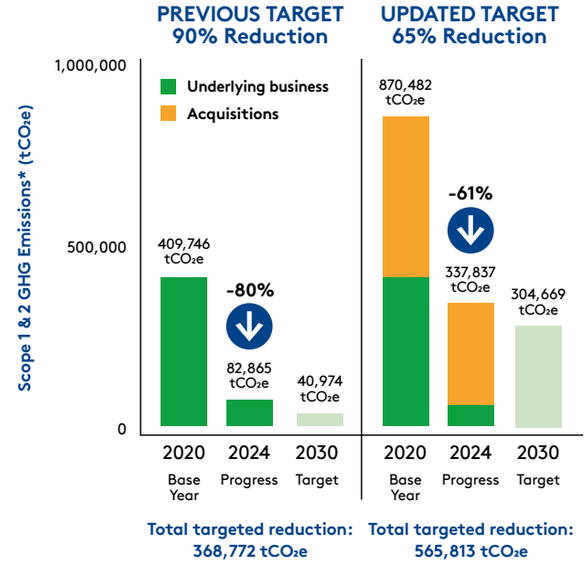
UPDATED CARBON TARGETS

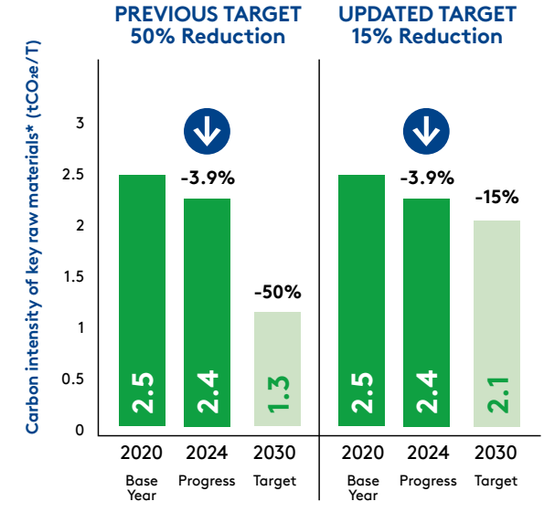
Scope 1 and 2 GHG Emissions

In 2019, we set a target to achieve a 90% absolute reduction in Scope 1 and 2 GHG emissions* by 2030, from a 2020 baseline (409,746 tCO_2e for the underlying business). As of the end of 2024, we have reached an 80% reduction in scope 1 and 2 emissions from 2020, excluding acquisitions, and 61% including acquisitions. Given the Group's rapid growth, we have adjusted this target to a 65% reduction by 2030 from an updated 2020 revised baseline of 870,482 tCO_2e, including current acquisitions and further potential organic growth out to 2030. As a result, the updated target is projected to achieve a minimum additional reduction of 197,000 tCO_2e by 2030, beyond the original commitment.

Raw material carbon intensity

To reflect the evolving pace of development by regulators, suppliers, and customers, we have also re-evaluated our target to reduce the carbon intensity of our key raw materials, from 50% to 15% by 2030. In 2024, the key raw materials, which are within the scope of this target, accounted for 69% of our Scope 3 GHG emissions.
To date, we have achieved a 3.9% reduction through ongoing collaboration with key suppliers and 100+ further meetings with both suppliers and internal stakeholders. This collective effort has led to the launch of our LEC product ranges, including 12 new products across our insulated panels, daylighting and raised access flooring product ranges.





*Scope 1&2 GHG emissions. Excluding biogenic emissions. Scope 2 GHG emissions calculated using market-based methodology.

PLANET PASSIONATE
PROGRAMME UPDATE 2025–2030

Updated Planet Passionate Targets
We are very proud of the progress made to date as part our Planet Passionate journey. As we enter into the sixth year of the programme, we have also added new Planet Passionate targets, to account for the achievement of three targets ahead of schedule.

Target achieved in 2024:



ON-SITE GENERATION
20%
Renewable on-site generation by 2030



PET BOTTLES
1bn
PET bottles recycled into our manufacturing processes annually by 2025



OCEAN CLEAN-UP
5
Ocean clean-up projects supported by 2025

The table on this page presents the updated set of Planet Passionate targets for the period 2025–2030. We will continue to dual report progress towards our targets annually, both for our current business, at the end of 2024 and any further organic growth, and this business including any acquisitions which take place between 2025 and 2030.

Finally, we are delighted to introduce three new targets, with the aim of expanding the scope of our circularity targets and increasing our focus on energy efficiency.

Energy Efficiency
We have introduced a target in which we aim for our large manufacturing sites (minimum of 5 GWh annual energy consumption) to achieve ISO 50001 certification for their environmental management systems. The certifications will support the continued improvement in energy efficiency of our operations.

Recycled & Renewable Raw Materials
To support our circularity strategy, we have set a target to increase our use of recycled and renewable raw materials to 1.5 million tonnes annually by 2030. This new, comprehensive target replaces the previous 1 billion PET bottle goal and includes the Quadcore® PET target. It has been introduced to create a unified raw materials target that includes all businesses.

Product Takeback & Recycling Schemes
We have also set a target to facilitate 20 product takeback and recycling schemes by 2030. We aim to achieve this through the development of innovative solutions to remanufacture or recycle, along with collaborations with external partners.

PLANET PASSIONATE TARGETS		BASE YEAR	TARGET YEAR	
CARBON	65% Scope 1 and 2 GHG emissions reduction[1]	2020	**2030**	
	15% Carbon intensity reduction for key raw materials	2020	**2030**	
	>90% Zero emissions company funded cars - Annual replacements (%)	-	**2030**	
ENERGY	ISO 50001 Energy management system for large sites[2]	-	**2030**	NEW TARGET
	60% Renewable energy consumption	-	**2030**	
	Solar PV installed on all wholly owned sites	-	**2030**	
CIRCULARITY	Zero company waste to landfill[3]	2020	**2030**	
	1.5 million tonnes of recycled and renewable raw materials used annually	-	**2030**	NEW TARGET
	Facilitate 20 product takeback and recycling schemes	-	**2030**	NEW TARGET
WATER	100 million litres of rainwater harvested annually	-	**2030**	

[1] Excluding biogenic emissions. Scope 2 GHG emissions calculated using market-based methodology.
[2] Large sites: >5GWh annual energy use.
[3] Zero waste to landfill: 90% landfill diversion of wastes generated in Kingspan manufacturing, R&D and assembly facilities.

CARBON & ENERGY

To prevent irreversible consequences and avert a climate catastrophe, immediate and stronger action is needed across all sectors. Achieving absolute emissions reductions must be the pillar of all mitigation efforts globally.

Climate change risks and opportunities are deeply embedded in our strategy, R&D investment, products and business model. Kingspan's core strategy is structured around the manufacture and delivery of a wide range of high-performance and energy and resource-efficient solutions.

Concurrently, we continue our efforts to increase energy efficiency, and our direct use of renewable energy, having achieved our on-site generation target in 2024. We are on a journey to decouple our growth from fossil fuels, while improving our energy security and resilience against price fluctuations.

We take our role seriously in the fight against climate change and the largest impact we can have is to help enable the decarbonisation of both new and existing buildings around the world.

5
YEARS

280+
PROJECTS

200k+
tCO_2e SCOPE 1 & 2 ENERGY RELATED REDUCTION



CARBON AND ENERGY
OUR DECARBONISATION STRATEGY - 2025 TARGETS

Kingspan's decarbonisation strategy outlines our approach to climate change mitigation and is supported by our carbon reduction targets.

As outlined in the "Programme Update" section above, we have updated our carbon targets for the period 2025–2030, which are reflected in the decarbonisation roadmap, as presented on this page.

Progress to date

At the end of 2024, we have achieved a 61% absolute reduction in Scope 1 and 2 GHG emissions and an 14% reduction in Scope 3 GHG emissions, including acquisitions.

These reductions have been achieved through over 400 initiatives including phasing out the use of high GWP blowing agents, implementing energy efficiency projects and generating and procuring renewable energy.

Our Scope 3 reductions were also supported through the increased use of lower embodied carbon raw materials and the launch of 19 LEC and bio-based products, 12 of which were brought to market in 2024.

In 2024, our Scope 1 and 2 emissions were reduced to 5% of our overall carbon footprint. Our Scope 3 emissions account for 95% of total emissions, the majority of which are attributable to our purchased goods and services.

2025–2030

To meet our targets, we have developed key decarbonisation levers to reduce our scope 1, 2 and 3 GHG emissions (including potential impacts from organic growth).

Further Scope 1 and 2 reductions are planned through energy efficiency, space heating and process electrification, further conversion to renewable fuels and the conversion of majority of remaining non-renewable electricity through on-site generation and procurement.

As approximately 90% of our scope 3 emissions are related to our purchased goods and services, collaboration with key suppliers to reduce scope 3 emissions is critical to achieve our 2030 absolute and intensity reduction targets. Decarbonisation of scope 3 emissions will therefore be planned through improved reporting mechanisms and further development of our supplier engagement programme and lower environmental impact product range.

OUR CARBON TARGETS

SCOPE 1 & 2

Absolute reduction in Scope 1 & 2 GHG emissions by 2030 from a 2020 base year

65%

SCOPE 3

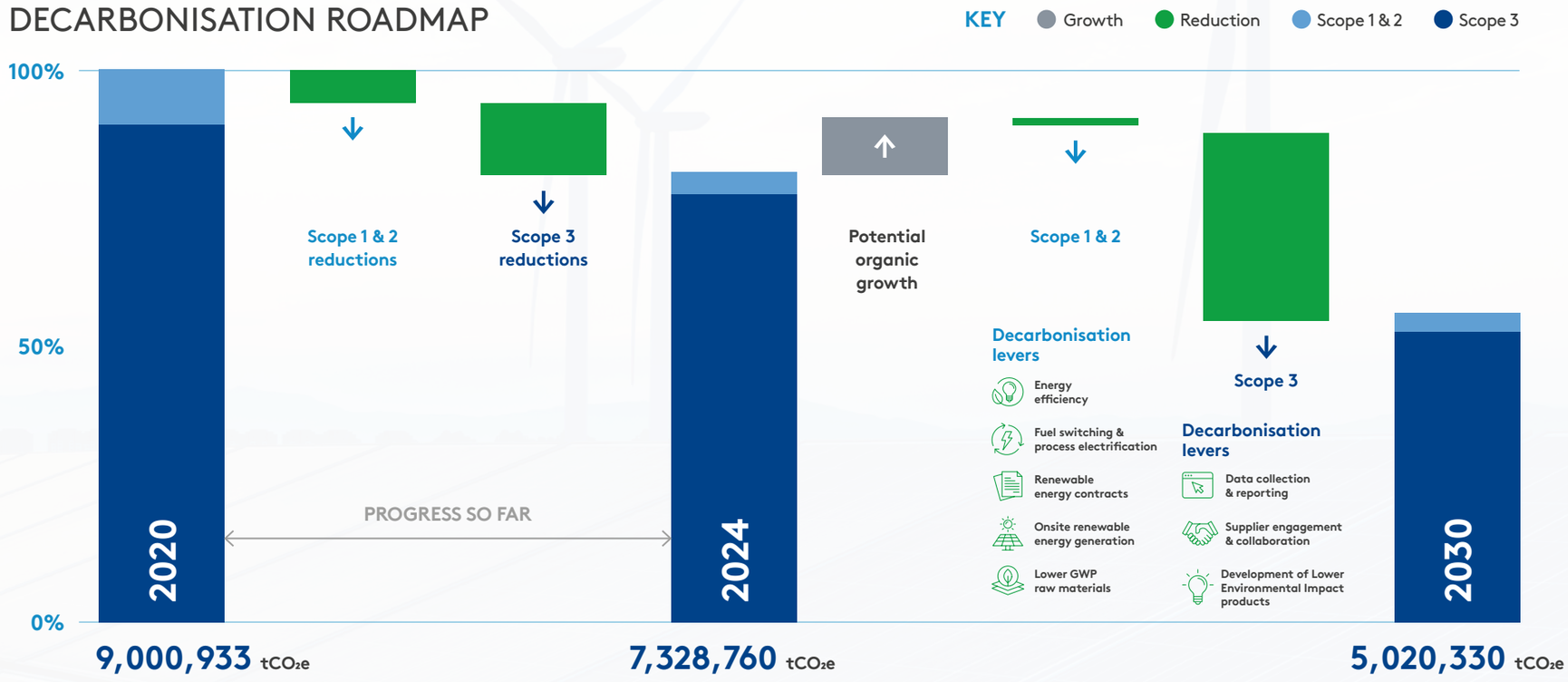
Absolute reduction in Scope 3 GHG emissions by 2030 from a 2020 base year

42%

Reduction in key raw materials intensity by 2030 from a 2020 base year

15%

DECARBONISATION ROADMAP



HOW WE MANAGE IT

Targets
Our climate ambition is aligned with a 1.5°C trajectory and places increased emphasis on emission reductions over offsetting (please see "Carbon credits and offsetting" for more information on offsets).

Scope 1 & 2
Kingspan commits to reduce absolute Scope 1 & 2 GHG emissions by 65% by 2030 from a 2020 base year.

Scope 3
Kingspan commits to reduce absolute scope 3 GHG emissions from purchased goods and services, use of sold products and end-of-life treatment of sold products by 42% within the same timeframe.

We consider these as interim targets on our journey to net zero emissions, and we will set a science-based net zero emissions target in the near future.

Internal carbon charge
In January 2023, we officially introduced an internal carbon charge across our global business. The starting price is 70€/tCO_2e (Scope 1 and 2 GHG emissions, excluding process and biogenic emissions) and will be adjusted as required to ensure progress against our targets and align to relevant developments in this field.

The implementation of the internal carbon charge has helped to further incentivise the rapid deployment of decarbonisation projects to support the achievement of our Scope 1 and 2 target including renewable energy contract conversions and forklift fleet decarbonisation, while facilitating increased focus across the business on our decarbonisation strategy.

Risk management
Climate change risks and opportunities are managed through a multi-disciplinary, company-wide risk management process. We are using the recommendations and guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) to not only assess price climate-related risks and opportunities, but to also use scenario analysis that help us manage our strategy resilience. For more information on our risk management process and our key risks and opportunities please see ESRS section of our Annual Report.

Carbon credits and offsetting
We do not procure carbon credits to count as reductions towards meeting our carbon targets and do not include carbon credits in our disclosures. Our focus is instead on decarbonisation within our operations and value chain. We aim to procure only credible, high-quality carbon credits that will demonstrate and ensure additionality and permanence towards the end of the decade. We will only use them to neutralise residual GHG emissions after we have met our science-based absolute GHG emission reduction targets.

OWN OPERATIONS DECARBONISATION LEVERS

We aim to continue our reduction in Scope 1 and 2 GHG emissions by furthering our energy process emissions reduction through initiatives under the below levers.

Further details on our Scope 1 and 2 decarbonisation levers, along with our project map and key 2024 projects are highlighted in the following section.

ENERGY EFFICIENCY
Focusing on efficient energy management through measurement and continuous improvements.

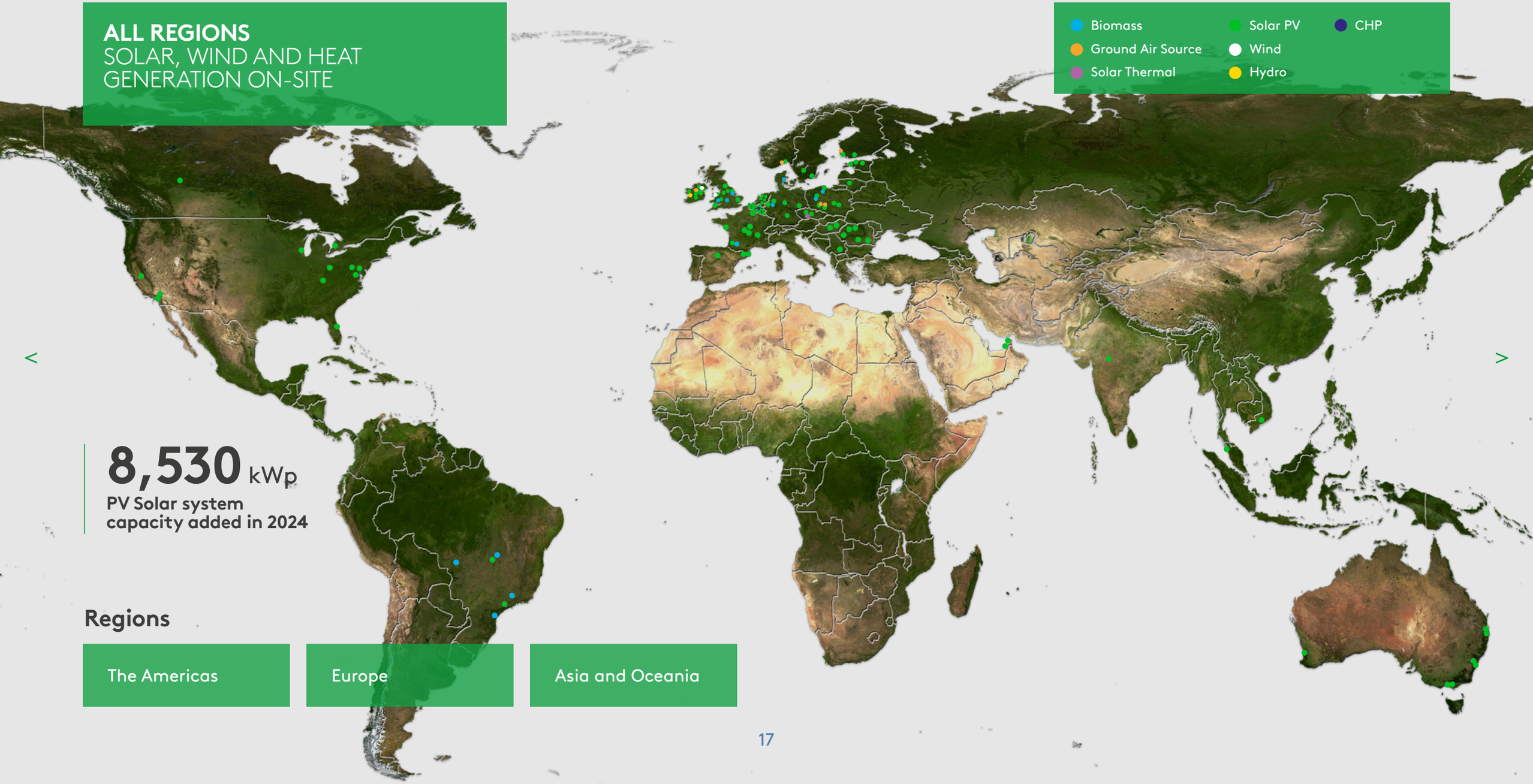
FUEL SWITCHING AND PROCESS ELECTRIFICATION
Transitioning to renewable energy use via conversion of processes and space heating.

RENEWABLE ENERGY CONTRACTS
Conversion of purchased non-renewable energy to renewable alternatives such as renewable electricity contracts.

ON-SITE RENEWABLE ENERGY GENERATION
Development of additional solar PV systems at our facilities, increasing our on-site renewable energy generation.

LOWER GWP RAW MATERIALS
Phasing out of high GWP blowing agents.

ALL REGIONS
SOLAR, WIND AND HEAT GENERATION ON-SITE



8,530 kWp

PV Solar system capacity added in 2024

Regions

The Americas | Europe | Asia and Oceania

OWN OPERATIONS - DECARBONISATION LEVER:
ENERGY EFFICIENCY

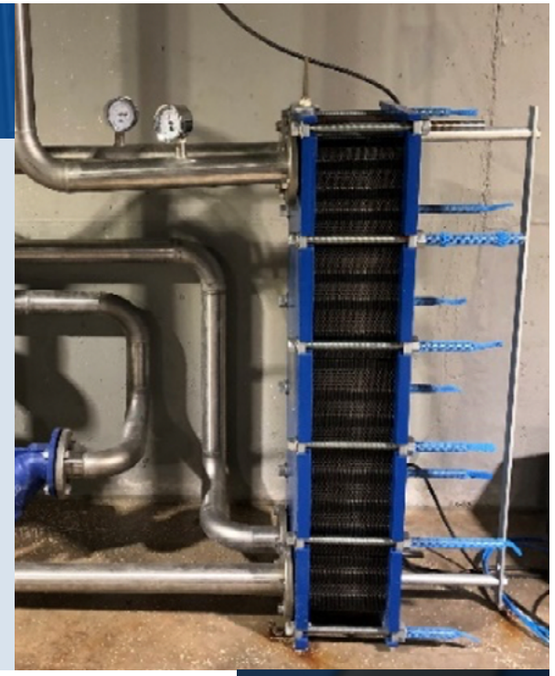
A key element of our decarbonisation strategy is to reduce the energy intensity of our operations, whilst also increasing generation and procurement of renewable energy. In 2024, we completed over 30 energy efficiency projects across our Group.

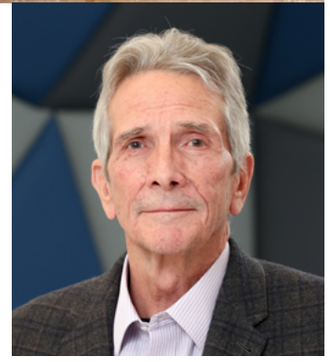
HEAT RECOVERY

CANOVELLES, BARCELONA
INSULATION

The Canovelles heat recovery project involves recovering and utilising the waste heat generated from the cooling of EPS moulding machines. The recovered energy is exchanged to raise the temperature of large quantities of water, which is further heated in steam-boilers, to expand the EPS/EPP product. Water temperature is raised from ambient to ~ 80°C, significantly reducing the energy from non-renewable sources required to generate high-pressure steam.

Carbon Savings:
156 tCO_2e/year





"Using less energy – more efficiently, remains the cornerstone of our carbon reduction strategy. There are many opportunities in all our plants globally, to recover process heat which is otherwise vented to atmosphere. The Canovelles heat recovery project is a good example to prompt many more initiatives across our operations. Energy thus recovered supports both Planet Passionate targets: on site renewable generation and direct use of renewable energy. It is very encouraging to see so many new initiatives being discussed in our Planet Passionate forums."
Deon Joubert,
Divisional Manager–Environment & Energy, Insulation

FACILITY EFFICIENCY

HAGETMAU, FRANCE
JORIS IDE

In 2023, our Hagetmau site in France built a new facility with Planet Passionate in mind. All energy used at the site is renewable. A solar PV system with a generation capacity of 362 kWp was installed and operational in July 2024.

The new building is insulated with our products "JI ROOF 120mm" and "JI WALL FC 100mm" and has on top of that, energy-efficient LED lighting.





LAMINATOR EFFICIENCY

EUROCLAD, UK
INSULATED PANELS, EAA

In 2024, Euroclad made improvements to their laminator by installing bespoke steelwork, 650m² of Euroclad 100mm insulated panels, two insulated roller shutter doors, insulated access doors, and an airflow and heat control system, alongside improved accessibility and operator safety.

This controlled environment will reduce heat loss, enable faster heating times, and improve operational efficiency, which will in turn reduce natural gas consumption in our boilers. This project is another step in reducing our Scope 1 emissions in Euroclad.

OWN OPERATIONS - DECARBONISATION LEVER:
FUEL SWITCHING AND PROCESS ELECTRIFICATION

Fuel switching
The renewable fuels market is not yet as developed as the renewable electricity market, it can be challenging to source and procure renewable fuels, especially in regions such as North America and Australasia. Nevertheless, we are exploring initiatives that will help us achieve our targets. To this end, we are actively investigating options to purchase certified renewable fuels directly from our utility providers with initial agreements in place to procure biofuels in the United Kingdom, Ireland, France and Belgium among others.

Process electrification
Within our operations we will focus on making progress on our renewable energy pathway, which includes electrification of our processes. We will continue to explore the availability of different technologies to accelerate the shift from using fossil fuels to electricity in our operations.

LAMINATOR ELECTRIFICATION

ADANA, TURKEY
INSULATED PANELS, CEME

In 2024, electric boilers for laminator heating were installed at our Adana site in Turkey. Switching the heating mechanism from natural gas to electricity contributes to GHG emissions savings of 260 tCO_2e/year.

"In order to remove natural gas consumption and, as a result, reduce GHG emissions, we installed a more efficient electric boiler."
Deniz Özay, Operations Director, Insulated Panels, CEME

Carbon Savings:
260 tCO_2e/year



HOT CHAMBER ELECTRIFICATION

LA LLAGOSTA, SPAIN
SYNTHESIA



The aqueous dispersion polyurethane manufacturing process requires preheating of the raw material before it is added to the reactor. The gas fuelled hot chamber that generated steam for heating was replaced with an electric-powered chamber. The electric hot chamber has a capacity of heating up to 150°C with heating resistances of 18 kW.

"While there are still several areas to decarbonise in our factories to fully meet our decarbonisation goals, this project is a small but important step towards electrifying our process."
Iker Teribia, Planet Passionate Representative, Synthesia

OWN OPERATIONS - DECARBONISATION LEVER:
FUEL SWITCHING AND PROCESS ELECTRIFICATION (cont'd)

ELECTRIC FORKLIFTS
INSULATED PANELS, CEME



In 2024, Insulated Panels, CEME division took a big step forward in its fleet electrification journey with the delivery of 14 new electric forklifts. Production teams are already noticing the benefits in terms of lower emissions and quieter, more efficient handling.

"Electric forklifts are the future of our operations, they are clean, quiet and powerful. In addition to their environmental benefits, we expect savings in the years ahead due to simpler and cheaper maintenance requirements. While there are challenges to overcome, we are fully committed to our goal of fleet electrification."
Lukas Macoun, Logistics Manager, Insulated Panels, CEME

New Electric Forklifts:

14

FUEL SWITCHING
SAINT CARADEC AND LEMPDES, FRANCE
JORIS IDE

Carbon Savings:
143 tCO_2e/year

In 2024, the French sites of our Joris Ide division started procuring BioLPG as a renewable alternative to fossil fuels.

Two new contracts were signed during the year, in the Lempdes and Saint Caradec sites.

"In 2023, Joris Ide's French sites contributed 9% to the division's total carbon footprint. In 2024, by transitioning to renewable electricity and through the adoption of bio propane at the remaining sites, we have significantly reduced emissions."
Hanne Vandenbroucke, Divisional Sustainability Graduate, Joris Ide



NET ZERO SITE
VILNIUS, LITHUANIA
JORIS IDE

Vilinus a Balex Metal site in Lithuania is one of our net-zero sites meaning scope 1 and 2 emissions are zero. The site has a 99 kWp Solar PV system installed on the roof of the factory. The solar PV energy is complemented with renewable electricity from the grid.

Solar PV Capacity:
99 kWp

OWN OPERATIONS - DECARBONISATION LEVER: RENEWABLE ENERGY CONTRACTS

Renewable electricity is becoming more widely available and where possible, we are procuring renewable electricity directly from our utility providers. In 2024, we expanded our procurement of direct renewable electricity in North America and Australia, regions which have previously had limited availability of such electricity products.

We are also investigating Power Purchase Agreements (PPAs) for both renewable electricity and fuels, particularly in regions where other renewable energy procurement options are not yet available or do not meet our standards. There are a variety of PPA options available, which we are reviewing to determine if they are suitable to support our targets.

OWN OPERATIONS - DECARBONISATION LEVER: LOWER GWP RAW MATERIALS

Process GHG emissions are from the use of blowing agents for the insulation production. We have ongoing mitigation plans in place and aim to continually reduce, substitute, or where possible eliminate the use of high GWP blowing agents.

RENEWABLE ELECTRICITY

LITTLE ROCK, UNITED STATES AWIP

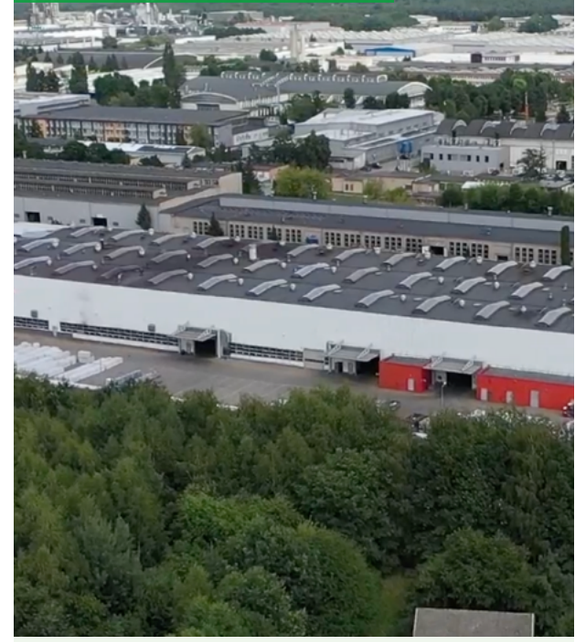


Our Little Rock facility is now using 100% renewable electricity which has been sourced directly via the energy provider. Switching from non-renewable to renewable electricity helps us save approximately 350 tCO2e per year.

Carbon Savings:
350 tCO_2e/year

RENEWABLE ELECTRICITY

ROOFING + WATERPROOFING



In 2024, our Roofing + Waterproofing division converted nine non-renewable contracts to 100% renewable electricity across five countries namely Germany, Malaysia, Poland, Spain and Turkey.

Carbon Savings:
10,203 tCO_2e/year

RENEWABLE ELECTRICITY

STEICO



Since July 2024 the STEICO manufacturing sites in Poland have been using 100% renewable electricity.

Carbon Savings:
158,000 tCO_2e/year

OWN OPERATIONS - DECARBONISATION LEVER: ON-SITE RENEWABLE ENERGY GENERATION

Increasing on-site renewable energy generation capacity is a priority for our business as we seek to increase our energy self-reliance, and reduce both direct GHG emissions and long-term operational costs. We are deploying solutions to generate both renewable electricity and heat.

Electricity
As we have multiple manufacturing processes across our Group, we must assess each site individually and investigate the feasibility of potential onsite electricity generation options based on location, cost and viable technologies.

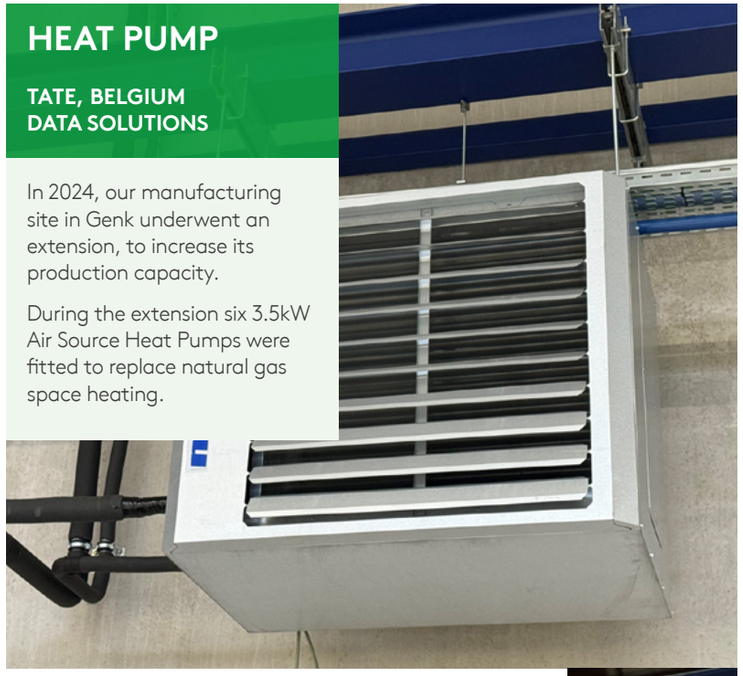
Renewable fuels
We are actively investigating options for on-site generation of heat and electricity such as heat pumps, combined heat and power plants and other ways of utilising biofuels on-site.

HEAT PUMP

TATE, BELGIUM
DATA SOLUTIONS

In 2024, our manufacturing site in Genk underwent an extension, to increase its production capacity.

During the extension six 3.5kW Air Source Heat Pumps were fitted to replace natural gas space heating.





"Planet Passionate is key for our organisation. We want to reduce our reliance on carbon-based fossil fuels and in particular natural gas, moving to renewable energy sources. For this reason, we installed state of the art electrical heat pumps in our new production halls. This project serves as a pilot project helping us to decide on future heating solutions in our existing hall."
Luc Vanhees, COO Tate Belgium, Data Solutions

SOLAR PV

WINCHESTER, UNITED STATES
INSULATION

In 2024, our Winchester site installed a solar PV system with a generation capacity of 1,365 kWp. It provides price stability and energy security in a long-term Power Purchase Agreement (PPA). The Winchester site during busy production shifts consumes the majority of electricity generated, during low production and down-time hours the energy is exported to the grid.

"We are proud to be the first Insulation Division USA plant to commission a large on-site renewable energy generation project, in support of our sustainability ambitions and Planet Passionate Targets."
Chris Davis, Senior OPEX Manager, Kingspan Insulation

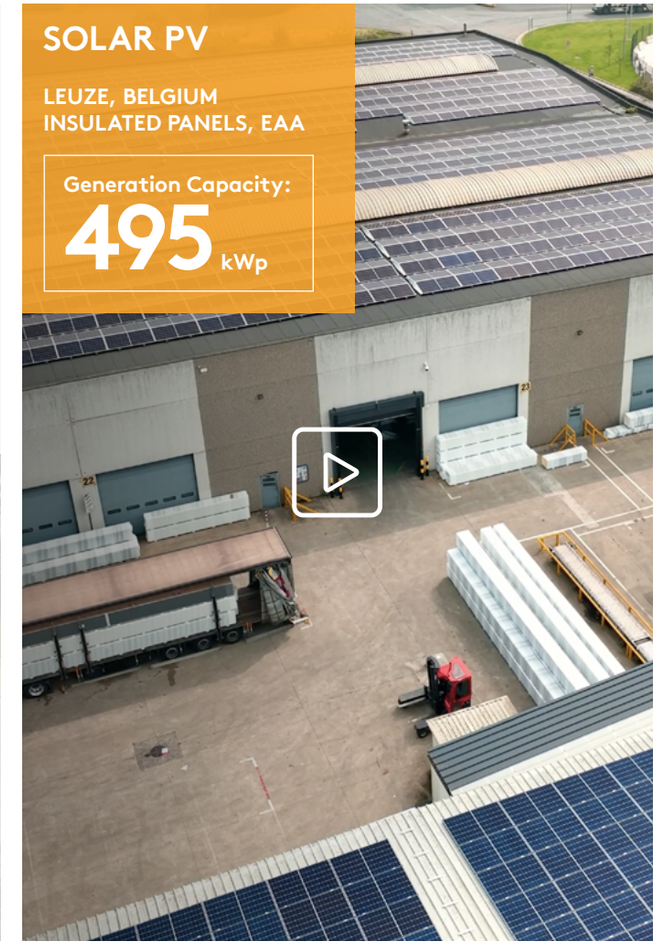
Generation Capacity:
1,365 kWp



SOLAR PV

LEUZE, BELGIUM
INSULATED PANELS, EAA

Generation Capacity:
495 kWp



OWN OPERATIONS - DECARBONISATION LEVER:
ON-SITE RENEWABLE ENERGY GENERATION (cont'd)

SOLAR PV
BURGOS, SPAIN
INSULATED PANELS, EAA

The rooftop PV installation completed by the Teczone Team in Burgos is projected to generate 1.7GWh of electricity every year. It is estimated that 0.787 GWh will be used in the factory, providing 44% of the total electricity requirement for the site.

Generation Capacity:
1,435 kWp



SOLAR PV
PHU MY, VIETNAM
INSULATED PANELS, EAA



Generation Capacity:
1,250 kWp

Kingspan Insulated Panels EAA installed a 1.25 MWp solar PV system to drive the Group's carbon reduction efforts as part of Kingspan's Planet Passionate environmental programme. The system's key components are Kingspan QuadCore® RW roof panels in combination with our PoweRail RW Solar PV mounting solution using Longi PV solar modules.

SOLAR PV
VISTA, UNITED STATES
LIGHT, AIR + WATER

Generation Capacity:
801 kWp



VALUE CHAIN GHG EMISSIONS - APPROACH AND LEVERS

We recognize that driving real change requires proactive efforts to reduce GHG emissions across our value chain. Due to the nature of our business, the vast majority of our GHG emissions (95%) stems from our upstream and downstream value chain (also known as scope 3 GHG emissions). Directing our attention to our upstream GHG emissions first, the "purchased good and services" category (Category 1) is responsible for 91% of our overall scope 3 GHG emissions (with metals, chemicals and mineral fibre being the key raw material categories). Regarding our downstream impacts, we have managed to significantly reduce (by 94%) our GHG emissions from product use and end of life (scope 3 categories 11 and 12 respectively) versus 2020, primarily due to the gradual phase-out of high-GWP blowing agents in North America.

To manage and mitigate our most material climate change impacts related to our scope 3 GHG emissions, we have set two reduction targets, one absolute and one intensity. Demonstrating our commitment in this area, we have already achieved a 14% reduction since 2020.

Considering that the bulk of our GHG emissions are related to the goods and services we procure, we have designed a three-lever approach to managing their impact:

- Data collection and reporting
- Supplier engagement & collaboration
- Development of lower environmental impact products

Data Collection and Reporting



Our efforts to improve data collection and reporting focus on gathering more detailed product and supplier-specific information on emissions. This approach enhances the accuracy of our scope 3 emissions reporting and supports strategic decision-making.

In 2024, we implemented a new Software as a Service (SaaS) platform to improve our Scope 3 GHG emissions reporting from Category 1: purchased goods and services. This has enabled us to increase the use of physical emissions factors to cover 70% of our Scope 3 GHG emissions related to Purchased goods and services.

Scope 3 GHG emissions reduction

14%

from a 2020 base year

Supplier Engagement and Collaboration



We actively engage with our key raw material suppliers on climate change topics with a specific focus on their decarbonisation roadmaps and timelines to reduce the embodied carbon of the raw materials that we purchase from them.

In 2024, we held more than 100 meetings with our key stakeholders to address decarbonisation challenges and opportunities. These included internal cross-functional meetings with procurement and sustainability leads and external meetings with our key supply partners. These discussions have allowed us to collect additional company- and product-level decarbonization roadmaps. Through our engagement programme, we also seek to identify areas of collaboration and share knowledge, resources and expertise. Our supplier engagement programme currently covers >60% of our emissions related to our raw materials, with the aim of expanding in further years.

Additionally, we developed the SHREDD policy, outlining our 'Supplier Human Rights and Environmental Due Diligence' process. This policy and tools such as EcoVadis helps us identify and prioritise actual and potential risks to human rights and the environment related to our business activities, products, and relationships. Through SHREDD, we proactively seek to address, prevent, and mitigate impacts on individuals, communities, and the environment.

Development of Lower Environmental Impact Products



Our sustainability and innovation strategies focus on reducing the environmental footprint of our existing products while also bringing new products to market. We aim to achieve this through the increased use of lower embodied carbon raw materials and the incorporation of bio-based solutions in our product range.

Kingspan has launched a product range, focused on LEC products, which provides a market for the use of lower embodied carbon raw materials. To incentivise our supplier engagement strategy and the procurement of lower embodied carbon raw materials, Kingspan aims to continue the development and expansion of this product range.

As per 2024, we have launched over 12 new products with improved environmental performance, creating demand for these products and expanding the upstream market for lower embodied carbon raw materials. Our R&D team continues to work on enhancing the environmental performance of Kingspan products.

SCOPE 3

Absolute reduction in Scope 3 GHG emissions by 2030 from a 2020 base year

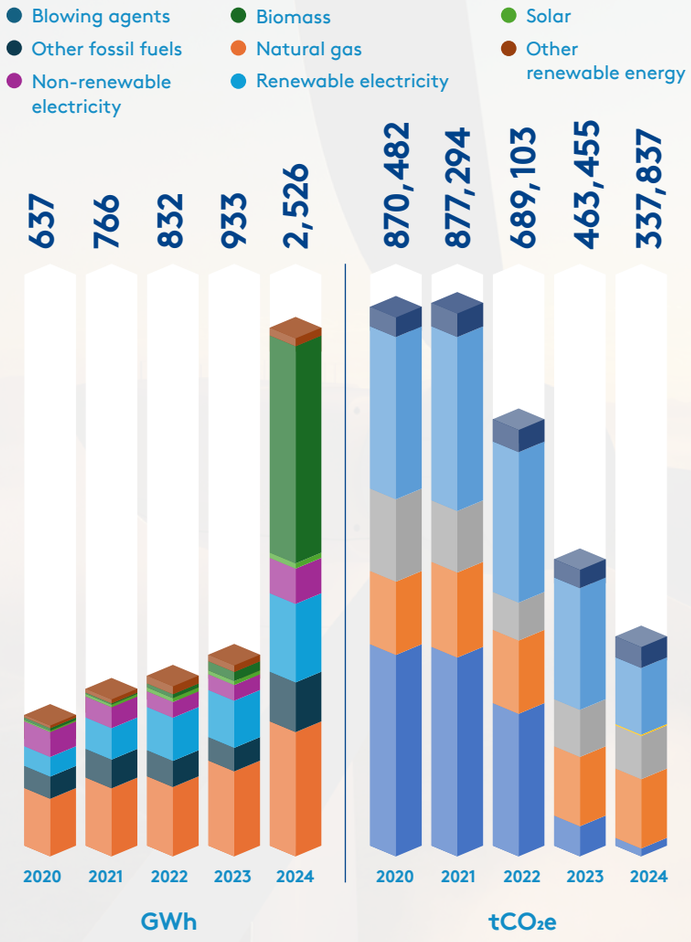
42%

Reduction in key raw materials intensity by 2030 from a 2020 base year

15%

CARBON AND ENERGY –
2024 KEY METRICS AND HIGHLIGHTS

ENERGY USE AND SCOPE 1 & 2 GHG EMISSIONS BY SOURCE[1]



SOLAR PV CAPACITY (MW)

2020	2021	2022	2023	2024
16.3	27.1	38.9	47.4	57.4

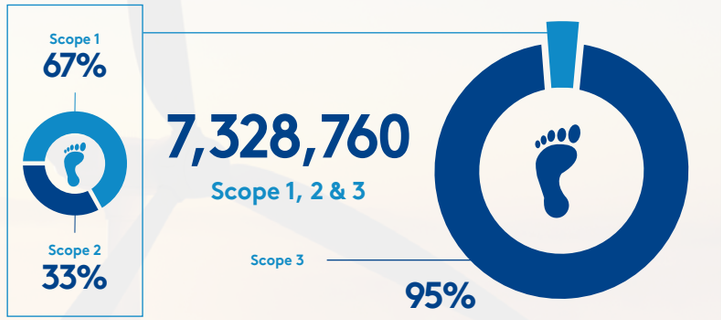
KEY RAW MATERIALS CARBON INTENSITY (tCO_2e/T)

2020	2021	2022	2023	2024
2.54	2.50	2.46	2.44	2.44

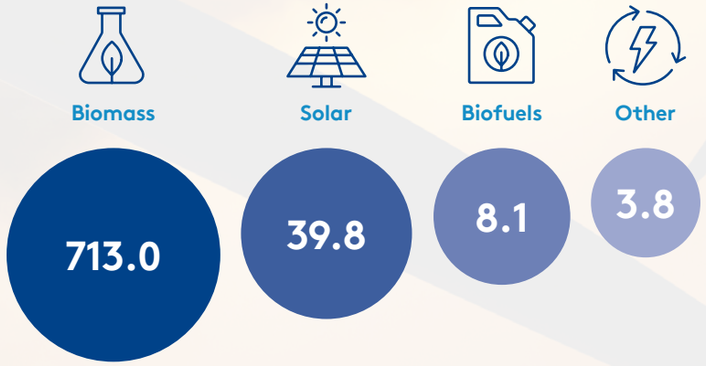
RENEWABLE ENERGY USE PER REGION 2024 (GWh)



CARBON FOOTPRINT 2024[1] (tCO_2e)



RENEWABLE ON-SITE GENERATION BREAKDOWN 2024 (GWh)



SCOPE 3 EMISSIONS 2024



91.2%	2.0%	3.2%	3.6%
Purchased goods & services	Fuel & energy-related activities	Upstream transport & distribution	Other

[1] Excluding biogenic emissions. Scope 2 GHG emissions calculated using market-based methodology.

CIRCULARITY

The construction industry is the largest consumer of raw materials, accounting for approximately 38.8 billion[1] tonnes annually.

With only 7.2% of the world's economy operating in a circular model[2], humans are consuming resources at 1.75 times the Earth's regenerative capacity[3].

At Kingspan, we acknowledge the importance of transitioning to a circular economy as we move forward in our Programme with the objective of integrating circular economy principles into our business model to help us decouple economic growth from resource use.

Our LIFECycle Product Circularity Framework is helping to drive change at every level of our business.

[1] WGBC, Annual Report, 2020
[2] WGBC, 2023
[3] World Economic Forum, Circular Transformation of Industries, 2023



150k+

TONNES DIVERTED FROM LANDFILL

40

PROJECTS WITHIN LIFECYCLE PRODUCT CIRCULARITY FRAMEWORK

93%

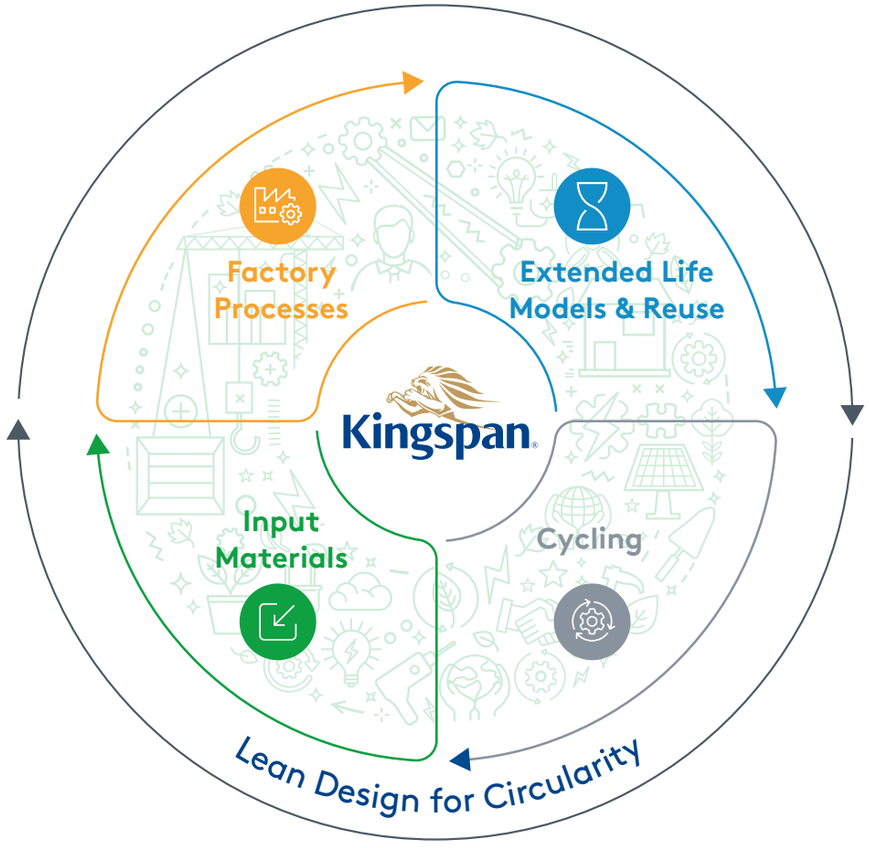
WASTE DIVERTED FROM LANDFILL

OUR LIFECYCLE PRODUCT CIRCULARITY FRAMEWORK

Our Approach
As a global manufacturing business, enhancing the circularity of our products is a key focus. Our approach is underpinned by our LIFECycle Product Circularity Framework, launched in 2020. The overarching aim of this framework is to ensure circularity principles are considered during the development of new products, under the "Lean design for circularity" umbrella.

By incorporating circular design principles upfront, we can focus on reducing the consumption of resources, selecting suitable materials for the optimisation of product lifecycle and designing for the elimination of waste under the four themes as outlined below.

Targets
Kingspan has set targets to mitigate resource related impacts across our value chain; upstream, own operations and downstream. Progress towards these targets support our circularity product framework, through initiatives related to recycled material use, material efficiency and recycling.



LEAN DESIGN FOR CIRCULARITY

Embedding resource efficiency and circularity principles into new and existing development processes.

Input materials
Increasing the use of recycled and responsibly sourced, renewable raw materials in our products.

Factory processes
Improving our resource efficiency by reducing or eliminating waste generation within our manufacturing processes and reducing the quantity of raw materials needed to make our products.

Extended life models & reuse
Working to help extend the in-use phase of products and facilitating reuse programmes by supporting industry initiatives and pilot projects.

Cycling
Developing end-of-life solutions to help keep materials and products that reach the end of their service life, circulating within the economy. We aim to do this through regional and local partnerships and the deployment of in-house mechanical and chemical recycling facilities.

"We are proud to announce that we have surpassed our goal of consuming the equivalent of 1 billion recycled PET bottles in our polyol production processes"

Ilker Teribia, Planet Passionate Representative, Synthesia Technology



1bn
PET bottles* recycled into our manufacturing processes annually
TARGET ACHIEVED



1.5m
Tonnes of recycled & renewable content annually
NEW TARGET



Zero company waste to landfill
90% reduction in waste to landfill from 2020



20
Facilitate 20 product takeback & recycling schemes
NEW TARGET

*equivalent no. of PET bottles by weight



INPUT MATERIALS

One of our key challenges is to increase the recycled and renewable content of our products, without compromising quality or performance. Our teams continue to explore several potential recycled and bio-based material options. Engagement and collaboration with our key raw material suppliers is an important element of our strategy.

In 2024, a year ahead of schedule, we achieved our target to recycle 1 billion PET bottles* into our manufacturing processes annually. Having reached this milestone, we have set a new target to use 1.5 million tonnes of recycled or renewable raw materials annually by 2030 with a key emphasis on our key raw materials of: Metals, Chemicals, Timber and Mineral Fibre.

Through our new target, we aim to accelerate our increase in recycled and renewable raw materials. We aim to do this, in collaboration with our procurement and R&D teams through:

- Supplier engagement: We are actively engaging with our suppliers to source raw materials that have lower embodied carbon and higher recycled or renewable content for our key raw material categories.
- Material recovery: We aim to establish our own supply of secondary raw materials through the facilitation and development of recycling and takeback schemes.
- Product development: We have introduced products utilising alternative materials such as bio-based raw materials, to our product portfolio.

NEW TARGET

1.5m tonnes of recycled & renewable content annually



STEICO

In 2024, Kingspan acquired a controlling share of STEICO, the global leader in wood fibre insulation, increasing our use of renewable raw materials and represents a significant step towards reducing embodied carbon emissions in buildings while improving product circularity.

PIR RECYCLING - GLYCOLYSIS PLANT

WINTERSWIJK, THE NETHERLANDS
INSULATION

Cycling | Input Materials



Waste PIR recycling capacity annually:
500 tonnes

"Despite facing some challenges along the way, we are proud to commission a significant milestone in Kingspan's Planet Passionate journey, demonstrating our commitment to circularity and reducing the embodied carbon in our raw materials."

Vaclav Svitak
Senior Divisional Project Engineer
Insulation

Kingspan Insulation has commissioned a project at our manufacturing plant in Winterswijk, Netherlands, to recycle polyisocyanurate (PIR) insulation waste, unveiled in June 2024. The glycolysis process chemically treats production insulation waste to convert it back into the original polyol, thus reducing demand for primary virgin raw material. The process is overseen by our Synthesia business, with their expertise in recycling PIR and PET plastics back to polyol. Future plans include the addition of waste take-back material from both customers and external construction & demolition activities.

*equivalent no. of PET bottles by weight



FACTORY PROCESSES

This theme focuses on resource efficiency in manufacturing. Our approach begins with minimising or eliminating waste wherever possible, with a goal of achieving zero waste to landfill by 2030. Additionally, we aim to reduce the amount of raw materials required to produce our products.

Since the launch of our Planet Passionate programme, we have implemented several projects to assess and better understand our waste management systems and material flows across our business, including the review and assessment of data collection and collation processes. This has contributed to a considerable improvement in waste management and segregation across our business, allowing us to reduce our waste to landfill by 33% since 2020.

EcoPIR
Our Brazilian business has developed a new product called EcoPIR using remanufactured production waste from the insulated panel process, which has contributed to our site at Araquari achieving zero waste to landfill certification from the Zero Waste International Alliance.

When production waste cannot be reintroduced back into our manufacturing processes, we seek to repurpose and recycle it into other products thanks to established partnerships with other industry stakeholders.

Moving forward, we will continue to focus on finding:

- Recycling solutions for traditional difficult to recycle materials (including technologies to separate heavily mixed waste materials)
- New reuse and remanufacturing pathways for manufacturing waste, and
- New partnerships to support the development of circular infrastructure where existing recycling pathways are not available.

BUZIAS WASTE MANAGEMENT AND SEGREGATION

BUZIAS, ROMANIA
JORIS IDE

Cycling | Factory Processes





"In the past, mineral wool scraps had to be collected and disposed. We had been looking for a solution to avoid landfill however a big challenge was to find a suitable recycling contractor located in the region. That way we would ensure that scraps would not need to be exported for further processing but instead be reprocessed as wool for insulation for residential use.

We are now excited to announce that a contract has been signed for the recycling of 100% of the plant's operational capacity, equating to around 330 tonnes per year, which will be collected in separate containers and will be delivered back to the suppliers to use as raw material in their products."

Irinel Stefan
Mineral Wool Line Team Leader,
Joris Ide South

WASTE TO LANDFILL REDUCTION

HAIBACH, GERMANY
DATA SOLUTIONS

Cycling | Factory Processes





"Using the latest technology in material separation we've managed to greatly reduce our waste to landfill and the costs associated with that. It's a win-win from both a Planet Passionate and site efficiency point of view."

Nathan Wallace
Divisional Project Engineer, Data Solutions

Gypsum dust containing plastics and coverings is a waste product generated as part of the manufacturing process at our Haibach site. Due to the nature of this waste fraction, recycling has been a challenge. In September 2024 we installed a waste separation device, which separates the waste gypsum from the plastics and coverings. We are now working with a recycling company to remove the gypsum waste and recycle it into useful materials. Not only has this project greatly reduced our waste to landfill, but it offers a significant cost saving.



EXTENDED LIFE MODELS & REUSE / CYCLING

We aim to help keep existing materials re-circulating within the economy, at their highest value, for as long as possible. This is challenging within our sector as the infrastructure, regulation and business models to drive circularity are still at an early stage.

However, working with our stakeholders, we aim to find and facilitate solutions for products in key markets. We have set a new target to facilitate 20 product takeback and recycling schemes by 2030.

Multiple stakeholders have been engaged in the development of a roadmap for product solutions across key markets including insulation panels, lighting, data and flooring products.

To date, we have built two recycling facilities that can chemically recycle our insulation waste back into raw materials for our insulation products.

In addition to our glycolysis plant at Winterswijk, our Synthesia business has developed and trialed a process to recycle our insulation material. This project is now operational, collecting and recycling the production waste from surrounding insulation manufacturing sites in Spain.

NEW TARGET

20 product takeback and recycling schemes by 2030.



Belter Tech

We have established a partnership with Belter Tech, a company that makes products containing up to 85% recycled content from post-consumer and post-industrial waste, to help recycle PIR (polyisocyanurate) insulation waste.

Belter Tech uses the insulation waste to make a variety of products including cement fill, ceiling tiles and panel products.

HOMES FOR HOMELESS

LITTLE ROCK, USA
AWIP

Extended Life Models



Some of the waste from our manufacturing facilities comprises B-grade or rejected product that are not fit for sale but are otherwise functional and usable. This type of waste still has high value potential if circular pathways can be found and developed to avoid having to be sold for scrap or sent to landfill.

Our Little Rock site has pioneered the Homes for Homeless project which has helped provide materials to construct two structures using B-grade and rejected product.

The project provided bedroom units and common space for 20 residents who will receive food, healthcare and help to find employment until they are re-established and able to move out on their own – typically within 3–12 months. We are proud of our continuing efforts to develop solutions that conserve valuable materials and benefit our communities.

NO ROOF TO WASTE

ROOFING + WATERPROOFING

Cycling



No Roof to Waste is a long running and well-established takeback scheme from Derbigum in our Roofing + Waterproofing division. The scheme allows customers and building owners to request a takeback of their old roof membranes. As part of the service, Derbigum inspects the quality of the membranes, first on site and then by sampling and testing in the lab. Once the results have been analysed, the old products can be taken back in collaboration with either the demolition contractor or the roofing partner in the case of a building renovation. Each 1kg of waste material will then be processed into another 1kg of new raw material, called Derbitumen®, and used to produce brand new recycled waterproofing membranes. The new products are themselves 100% recyclable, so we are proud to be able to close the material loop for these products.

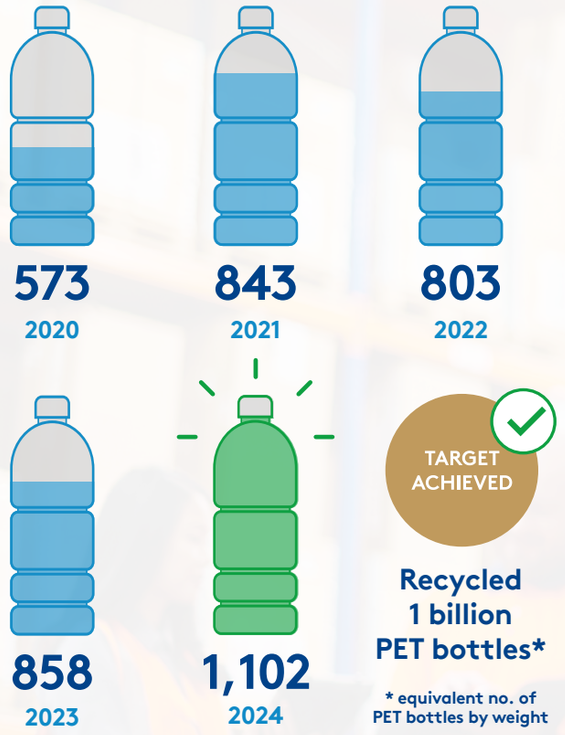
"Thanks to our takeback scheme No Roof to Waste, we are able to convince building owners to contribute to our efforts towards a circular economy ."

Stefaan Valette, Marketing & Business Development Director, Derbigum



CIRCULARITY - 2024 KEY METRICS AND HIGHLIGHTS

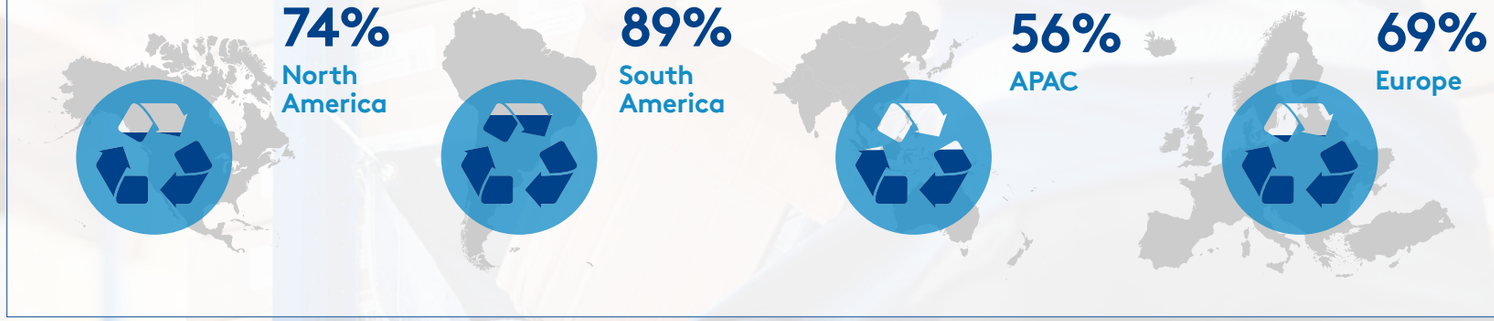
RECYCLED 1 BILLION PET BOTTLES INTO MANUFACTURING PROCESSES ANNUALLY (MILLION BOTTLES)



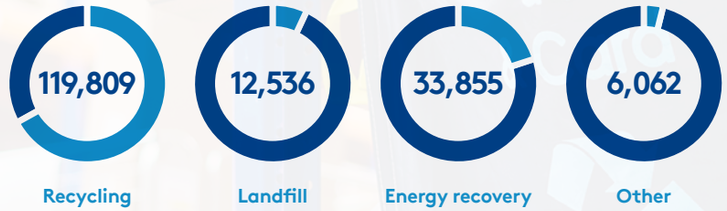
WASTE DIVERTED FROM LANDFILL (%)

2020	2021	2022	2023	2024
80%	85%	92%	92%	93%

WASTE RECYCLING/REUSE RATE BY REGION (%)



WASTE GENERATION BY DISPOSAL TYPE (TONNES)

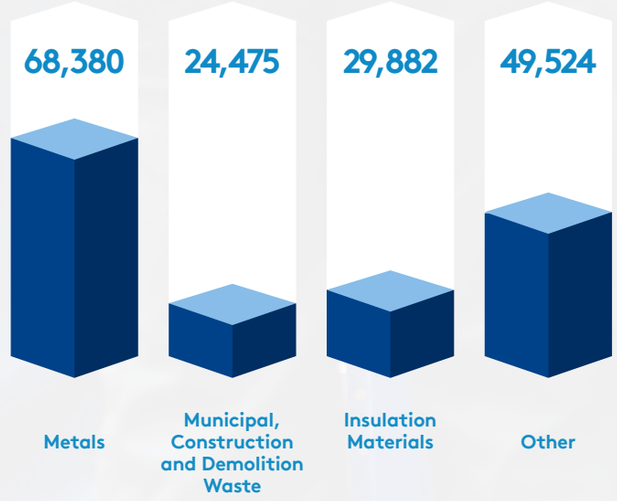




106

Sites with >90% waste diverted from landfill

WASTE GENERATION BY WASTE FRACTION (TONNES)



WATER

Access to water is a fundamental human right and crucial for sustainable development. Climate change, urbanisation, and population growth are intensifying water stress and contamination. Recognising the urgency of water scarcity and misuse, we, as a global manufacturer, are committed to minimising our impact on the world's water resources and ecosystems, ensuring a sustainable and equitable future for all.

We proudly demonstrate our commitment to sustainable water management through innovative rainwater harvesting projects. By capturing and utilising rainwater, we aim to reduce our reliance on municipal water supplies and preserve local water resources.

This initiative supports our environmental targets, enhances resilience against water scarcity and climate change, and reflects our dedication to responsible water stewardship and a sustainable future.



5
YEARS

58
SYSTEMS INSTALLED

188 million litres
RAINWATER HARVESTED SINCE 2020

WATER
PROJECT HIGHLIGHTS

As a global manufacturer, conserving water to lessen our impact on the world's water resources is a priority. We have set a target to harvest 100 million litres of rainwater annually on our sites by 2030, to help reduce our impact on the water supply that we share with local communities.

We aim to conserve water and reduce our use of mains water and rainwater/stormwater runoff. All harvested water will be either used by Kingspan in our operations, sold or donated.

RAINWATER HARVESTING

BOLSZEWO & TOMASZOW, POLAND
JORIS IDE



In 2024, rainwater harvesting tanks were installed in two Polish sites within the Joris Ide division. The plant in Bolszewo had a tank installed which has the capacity of 22m^3. The second plant in Tomaszów Mazowiecki had two tanks installed with a capacity of 22m^3 and 15m^3.

Estimated annual harvesting potential:
0.5m Litres

"The Balex Metal team is committed to responsible water management, which is why we have installed our first rainwater harvesting tanks in Bolszewo and Tomaszów Mazowiecki sites. This initiative confirms our commitment to implementing sustainable solutions across our business."
Karolina Zakrzewska, Administrative and Environmental manager, Balex Metal/Joris Ide



RAINWATER HARVESTING

EUROCLAD, CARDIFF
INSULATED PANELS, EAA

This project set out to implement Euroclad Group's first rainwater harvesting system. We installed a 12,000-litre above-ground rainwater harvesting system composed of two 6,000-litre tanks, supplied by Kingspan Light, Air + Water division. The system has the potential to conserve 360 litres of water per day, allowing us reduce demand on potable water and lower utility costs.

Estimated annual harvesting potential:
0.4m Litres



WATER
PROJECT HIGHLIGHTS

RAINWATER HARVESTING

TATE, UK
DATA SOLUTIONS

The Hull site already had a small rainwater harvesting system that was installed in 2021. It consisted of 3 x 1,000 litre tanks which allowed us to achieve 17% of the site's water usage coming from harvested rainwater. The decision was made to expand the existing system in order to increase the contribution towards the Planet Passionate rainwater harvesting target. The overall capacity was tripled, and the amount of water being fed into the system doubled. The primary advantage of the project is the significant reduction in mains water consumption.

"We have expanded the existing rainwater harvesting system to help contribute more towards the Group's 2030 target of 100 million litres of rainwater harvested annually. As a result, our catchment potential has doubled and the storage capacity has tripled."
Jack Jenkins, Manufacturing Project Engineer, Data Solutions

Estimated annual harvesting potential:
0.15m Litres









RAINWATER HARVESTING

VICTORIAVILLE, CANADA
VICWEST

This is Vicwest's second rainwater harvesting system and it is capable of harvesting over 600,000 litres of rainwater annually. The system uses the entire roof of our facility as the catchment area, totalling 42,000 square feet. The harvested rainwater is sanitised by a water filter, chlorine, and UV light to achieve expected condition.

We estimate this system will reduce our water usage in Victoriaville by over 60%. Combined with our other rainwater harvesting system in Stratford, ON, we estimate we will be able to harvest one million litres of rainwater per year.

"Installing a rainwater harvesting system in Victoriaville will help Vicwest conserve water by reducing water sourced from our utility, thus allowing us to reduce our impacts on the local environment."
Eric Gariepy, Operations Manager, Vicwest

Estimated annual harvesting potential:
0.5m Litres

OCEAN CLEAN-UP PROJECTS

NEW PARTNERSHIP IN 2024

rePurpose

In November 2024, we announced our latest ocean clean-up initiative – a new partnership with rePurpose Global.

Through this partnership, we will help combat ocean-bound plastic pollution in the Buenaventura region of Colombia's Pacific Coast – a beautiful coastal town and ecological hotspot known for its beaches, rich biodiversity and breeding grounds for humpback whales. Now a popular tourist destination, Buenaventura has a severe plastic pollution problem which is exacerbated by poor waste management infrastructure in the area – harming both the local communities and marine ecosystems that depend on the oceans.

"We're thrilled to partner with Kingspan in their commitment to creating environmental impact, particularly through our joint efforts to combat ocean-bound plastic pollution. This initiative aligns with their Planet Passionate sustainability programme, which aims to drive meaningful change for our planet. We're excited to join them on this journey and hope this serves as a springboard propelling them to achieve many more sustainability goals, allowing their company and the planet to flourish."

Aditya Siroya
Co-Founder and Chief Impact Officer at rePurpose Global

* On average a plastic disposable straw = 0.42g
86,800,000g/0.42g = 206,666,667 plastic straws

86,000kg+
OCEAN-BOUND PLASTIC RECOVERED FROM BEACHES

206m
THE EQUIVALENT OF OVER 206M PLASTIC STRAWS*

rePurpose Global
(expected impact during three-year partnership)



4ocean

In November 2023, Kingspan joined forces with 4ocean, a mission-driven for-profit business dedicated to ending the ocean plastic crisis. Kingspan's three-year partnership with 4ocean is expected to help remove at least 150,000lbs of plastic and trash from the Sungai Yeh Kuning river in Bali, Indonesia.

Positioned near a densely populated village where lots of debris is improperly disposed of, the Kingspan floating 'boom' system helps to reduce the amount of trash from the village that makes its way into the river and, eventually, the sea. To date, the Kingspan boom has removed 50,000lbs of trash from the waterways, putting us on track to achieve our goal.

The 4ocean team even found an abandoned duckling at the boom, which became known as Johny the duck and is now a very proud member of the 4ocean family!

"Kingspan's commitment to sustainability through the Planet Passionate initiative is amazing. As a Certified Cleanup Partner, their support has directly contributed to removing plastic from our oceans, expanding our cleanups, and driving meaningful change for our planet and future generations."

Alex Schulze
Co-Founder & CEO at 4ocean

50,000
POUNDS OF PLASTIC REMOVED FROM THE WATERWAYS*





***4ocean x Kingspan impact**
(November 2023–November 2024)

OCEAN CLEAN-UP PROJECTS

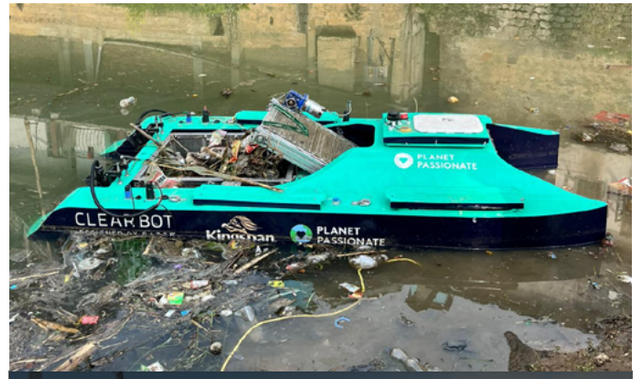
clearbot

Kingspan entered a three-year partnership with Clearbot in 2022, working together to help tackle ocean-bound debris in India. Clearbot creates unmanned, electric, emissions-free robots that tackle challenges including inspection and monitoring, to intervention and cleaning of urban waterways. Kingspan's Clearbot bot helps to filter and clean the Nonbah River in India's Meghalaya region, which feeds into the Brahmaputra River and ultimately flows into the Bay of Bengal.
At least 30kg of waste is collected from the river on each mission, including organic waste such as excessive algae, which disrupts the aquatic ecosystem, and inorganic waste such as plastics, metals and synthetic textiles.

"Our collaboration with Kingspan has been instrumental in achieving a cleaner Nonbah River. Over the past year, we have successfully removed more than 20 tons of waste, including 329 kilograms of plastic and over 65,874 individual pieces of plastic debris. This initiative not only improves water quality but also fosters a healthier ecosystem for the local community, showcasing the power of partnerships in driving meaningful environmental change."

Clearbot

20+	TONNES OF WASTE COLLECTED[1]
30	KILOGRAMS OF WASTE COLLECTED PER DAY (AVERAGE)[1]





[1]Clearbot x Kingspan impact
(November 2022–November 2024)

Seabin™

Kingspan embarked on a three-year partnership with Australian-founded clean tech start-up, Seabin™ in November 2021. Over the course of our partnership, three Kingspan-branded Seabin™ units were set up at marinas and harbours across Australia to help to remove plastic, microplastics and other marine debris from the waterways. Our partnership concluded in 2024, and we are proud of what we achieved together during this collaboration.

"Kingspan's 3-year partnership between Seabin has generated significant positive environmental impact, with Seabin technology filtering over 2.65 billion litres of water and removing 4.35 million plastic items, including 3.49 million microplastics, from our oceans. This dynamic partnership showcases how collaborative efforts can make a tangible difference in the fight to protect our oceans from plastic pollution. Thanks again for your support, Kingspan."

Pete Ceglinski
CEO & Co Founder, Seabin

11	TONNES OF MARINE LITTER COLLECTED[2]
84%	OF PLASTIC ITEMS WERE MICROPLASTICS[2]
2.7bn	LITRES OF WATER FILTERED[2]
4.4m	PLASTIC ITEMS CAPTURED[2]



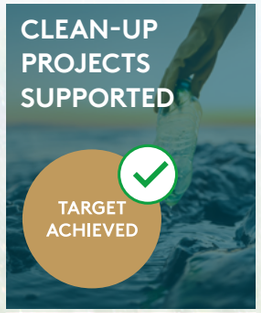


[2]Seabin x Kingspan impact
(November 2021–November 2024)

WATER - 2024 KEY METRICS AND HIGHLIGHTS

WATER WITHDRAWALS BY REGION (%)





2020
ECOALF
3-Year Partnership

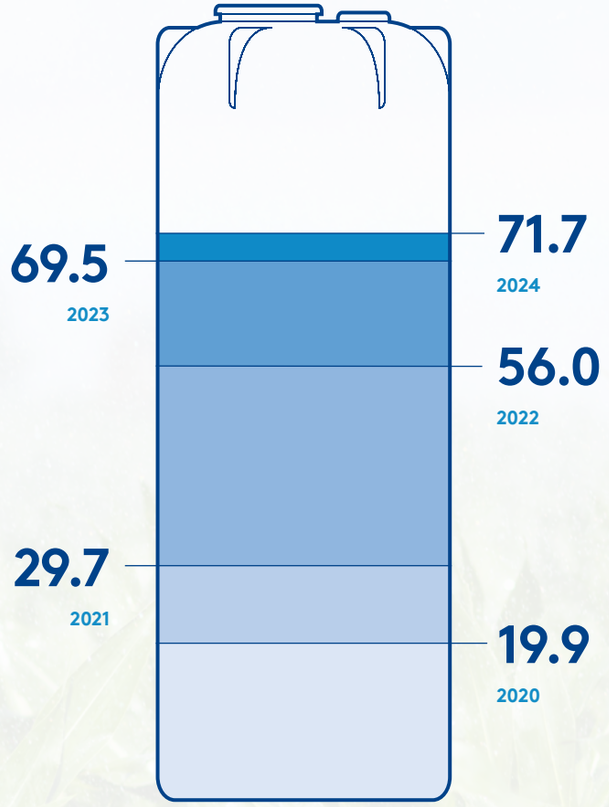
2021
Seabin™
3-Year Partnership

2022
Clearbot
3-Year Partnership

2023
4ocean
3-Year Partnership

2024
rePurpose Global
3-year Partnership

ESTIMATED ANNUAL HARVESTING POTENTIAL (ML)



RAINWATER HARVESTING CAPACITY BY REGION (ML)



WATER WITHDRAWALS (ML)

2020	2021	2022	2023	2024
438	552	667	797	2,223

RAINWATER HARVESTED (ML)

2020	2021	2022	2023	2024
20	21	27	57	63

RAINWATER HARVESTING SYSTEMS (NO. SYSTEMS)

2020	2021	2022	2023	2024
14	22	36	49	58

PRODUCT PASSIONATE

We want our products to make a difference; that's why we are tirelessly working on enhancing the environmental performance of our products, thus supporting our customers decarbonise both new and existing buildings.

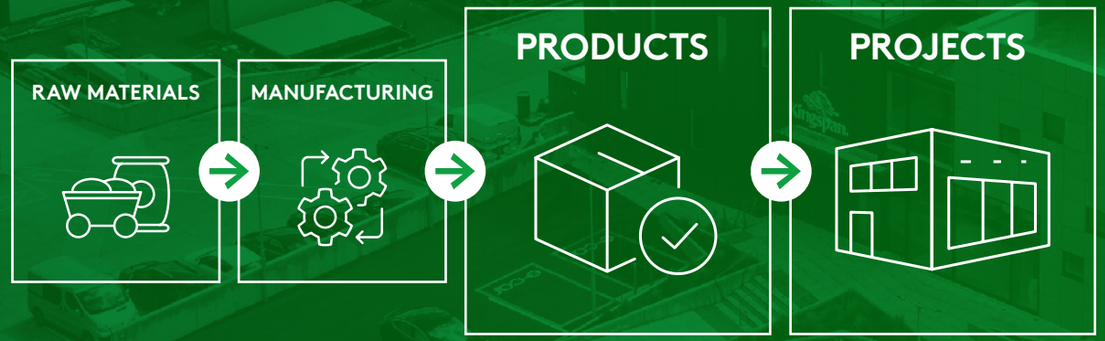
Planet Passionate, our environmental sustainability programme, was also designed and developed based on the same principles and aspirations; its overarching goal is to contribute to the development of high-performance projects, with reduced environmental impacts.

17
LEC PRODUCTS

2
BIO-BASED PRODUCTS

2
BRANDS

PLANET PASSIONATE GOAL



PRODUCT PASSIONATE

Buildings and construction are responsible for 37%[1] of energy-related CO_2 emissions globally, 9% of which are the result of building materials used in the construction of both residential and non-residential buildings. Product Passionate outlines our approach to support our customers in the construction of buildings with improved environmental performance, through further product innovation. We strive to improve the environmental performance of our products, reducing their embodied carbon, and in-use benefits.

To achieve this, we are focusing our efforts on these two key areas of product innovation:

1 PRODUCT DECARBONISATION
Development of existing and new products with lower embodied carbon and utilisation of recycled and/or renewable raw materials.

2 INSULATE & GENERATE
Development of novel solutions that enhance the functionality of the building envelope.

[1]United Nations Environment Programme, & Yale Center for Ecosystems + Architecture (2023). Building Materials and the Climate: Constructing a New Future. https://wedocs.unep.org/20.500.11822/43293

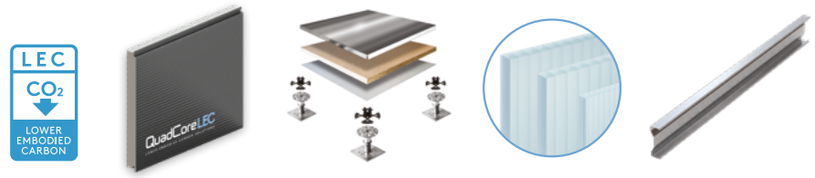
1 PRODUCT DECARBONISATION

In our quest to continue developing Lower Embodied Carbon (LEC) products, we have focused our strategy on both decarbonising existing, high-performance products and expanding our product portfolio to include alternative, bio-based products.

A. DECARBONISED EXISTING PRODUCTS:

Our innovation and sustainability teams work in partnership to develop lower embodied carbon versions of our products, across our portfolios. In 2023, we launched our LEC product range, which to date includes 17 LEC products across our insulated panels, daylighting, structural and data solutions product ranges.

Twelve out of these 17 new products were launched in 2024, including AST LEC insulated panel, Kingframe LEC, Multichannel LEC, Tate Grid+ LEC, Tate Containment LEC and Kilon Multiwall LEC. For more information, please see our website.

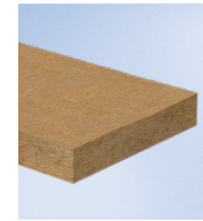


5 Panel Systems | **4** Data Solutions | **1** Daylighting Solutions | **7** Structural Solutions

B. BIOBASED PRODUCTS:

At Kingspan, we aim to offer a comprehensive product portfolio to help address every building need. This includes providing a complete spectrum of insulation technologies, a key element of our product decarbonisation strategy. In 2024, we launched our BioKor® insulation brand. This brand includes products made from a majority of bio-based raw materials.

Our HemKor® product range was brought to market in 2023 is included in this product range. Also, in January 2024, we acquired a majority stake in STEICO, a global leading wood fibre insulation business. Steico's suite of wood-based building envelope solutions broadens our range of biobased products.



BIO KOR®

2 Biobased Products

STEICO

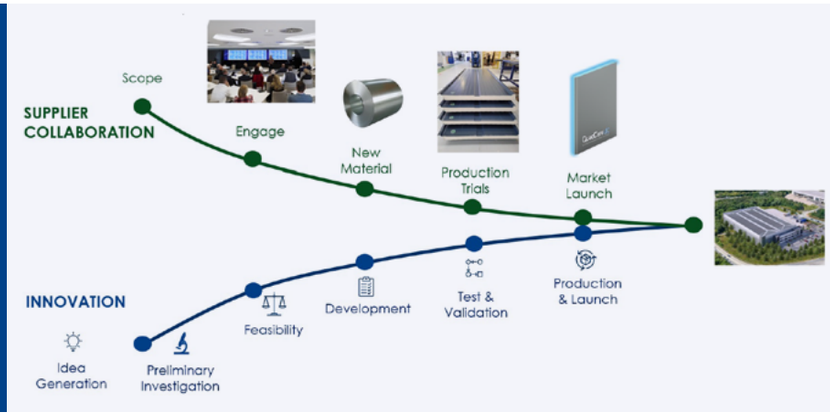
OUR INNOVATION APPROACH

Our R&D, sustainability and procurement functions work collaboratively to further improve overall environmental performance of our product portfolio, from the raw materials used to end of life. The use of new, alternative raw materials is a key lever to achieve reductions in embodied carbon of our product portfolio.

Therefore, supplier engagement and collaboration in our innovation process is critical.

We work closely with our suppliers throughout the innovation process from idea generation to feasibility and from initial testing of new materials to product launches.

Our innovation and supplier collaboration process is outlined here:



LOWER EMBODIED CARBON (LEC) HIGHLIGHTS

QUADCORE LEC®

We are committed to reducing the carbon impact of our insulated panels, and our new QuadCore LEC® range is a significant step in this journey. QuadCore LEC® is designed to lower the carbon footprint of buildings, supported by Comparative Lifecycle Assessment Data (LCA) conforming to the EN15804-A2 standard.

The QuadCore LEC® range showcases a remarkable 21% reduction* in embodied carbon for QuadCore® AWP with a 100mm thickness (modules A1-A3). These innovative products are already available in the UK and Irish markets.

*The 21% reduction in QuadCore® AWP LEC LCA refers to modules A1 – A3 (product stage) when compared to existing QuadCore® AWP LCA to the EN15804-A2 standard for a 100mm thickness. The EPDs for QuadCore® AWP LEC, QuadCore® KS1000RW LEC, and QuadCore® Coldstore LEC are third-party verified and available for download on EPD Hub's website. When comparing modules A-C (product stage, construction process stage, use stage, end of life stage), the overall reduction is 15%.



QUADCORE LEC®

INSULATED PANELS
EAA



ST. MODWEN PARK

St. Modwen, a 115,000 ft² state-of-the-art warehouse space has recently opened just a few miles away from Europe's busiest single-runway airport.

This project is one of the first to utilise our QuadCore® KSRW1000 LEC product, the first product in the LEC product range that has been developed specifically to help reduce the embodied carbon of the buildings it is used on.

This innovative QuadCore LEC® product delivers excellent energy efficiency and both operational and embodied carbon reductions, all of which will help St. Modwen Park achieve an EPC A+ and projected BREEAM 'Excellent' rating.

PAROC PANEL SYSTEM LEC

INSULATED PANELS
CEME

Our Paroc LEC products represent a new generation of sandwich panels with mineral wool core that support our customers reduce the carbon footprint of their buildings. The reduction in the product level embodied carbon is achieved through targeted actions in our primary supply chain, in line with our Planet Passionate programme.

The steel used in LEC panels is manufactured in an Electric Arc Furnace (EAF,) using high amounts of scrap steel and 100% renewable energy. The mineral wool core is manufactured at a highly efficient, low-carbon manufacturing line, fitted with an electric melter that is powered by renewable electricity.

"We are delighted to launch our Paroc Lower Embodied Carbon (LEC) insulated panels from Paroc Panel System, which contribute significantly to reducing the carbon footprint of the buildings in which they are used and increasing the buildings' energy efficiency."

Eric Henningsson
Technical Services Manager
Nordics





LOWER EMBODIED CARBON (LEC) HIGHLIGHTS





THE ICONIC 19TH "TROPICAL FRUIT WAREHOUSE", SIR JOHN ROGERSON'S QUAY, DUBLIN

A remarkable renovation project, sympathetically blending traditional architecture with spectacular modern design.

Kingspan supported our installer, Jan Janssens & Company, who were working with the two main project contractors, PJ Hegarty & Sons and Structure Tone Dublin, on the major refurbishment of an iconic Dublin building. The Tropical Fruit Warehouse at Sir John Rogerson's Quay, dating back to 1892, has been refurbished, transforming the building into 85,000 sq. ft of exceptional office space. The original warehouse features and its red-brick façade have now been combined with stunning modern architecture through the addition of two floating office floors.

In a remarkable piece of design and construction, these two fully glazed floors cantilever over the original listed building to offer users fantastic views across the River Liffey.

The project has been designed to meet the highest sustainability and efficiency credentials, including the new Nearly Zero Energy Buildings standards, LEED Platinum, and WELL Gold.

The building is also one of the first buildings in the world to be fitted with Tate's new lowest embodied carbon raised access floor panel the Tate RMG600+. The panel uses lower carbon, electric arc furnace steel, and is made from a minimum of 86% recycled content. Independently tested, Tate's new RMG600+ raised access floor panel is PSA Medium Grade and comes with a full 25-year total system warranty.

LOWER EMBODIED CARBON (LEC) HIGHLIGHTS



KILON LEC Multiwall has been engineered by Kingspan Light, Air + Water to provide a lower embodied polycarbonate glazing option for a range of their skylight products.

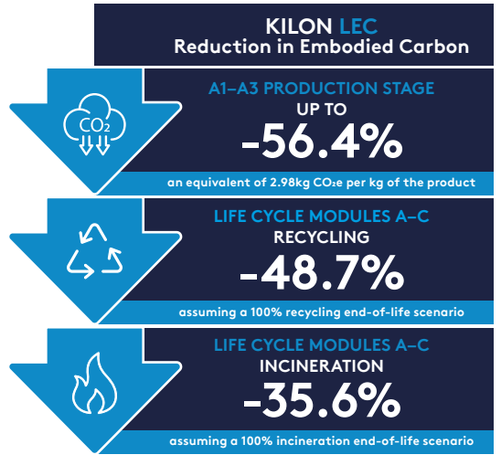
Manufactured at a state-of-the-art facility and containing recycled material from used large blue water bottles, its launch marks a significant step in the division's aim to enhance circularity and future-focused daylighting, ventilation and water management solutions to the market, as well as contributing to Kingspan Group's wider decarbonisation goals.

KILON LEC Multiwall is a four-wall glazing material made from a high-performance polycarbonate resin that incorporates 50% post-consumer recycled (PCR) polycarbonate from large blue water bottles. Polycarbonate is fully recyclable at end of life and can be remanufactured to create a range of new products with no loss of material quality.

While helping us reduce the embodied carbon of several of our solutions in the future, it will also be made available as a raw material to purchase directly where desired.

For more information about KILON LEC Multiwall, including its Environmental Performance Declaration (EPD) and performance credentials, please visit our website.

The EPDs were produced by the Institut Bauen und Umwelt e.V. (IBU) based on ISO 14025 and EN 15804+A2.



*The GWP Total indicator is used in this instance to denote the 'embodied carbon' of the product. Third party-verified EPDs for both products are available at: ibuepd.com. Products within Kingspan's lower embodied carbon (LEC) ranges are lower in embodied carbon when compared to the existing comparable Kingspan product. Embodied carbon refers to the greenhouse gas emissions associated with the manufacturing, transportation, installation, use, and disposal of building materials and products throughout their entire life cycle.

WHY LEC?

with Dr. Miguel A. Paya-Marin & Aristides Ioannou - Light, Air + Water

Q: What was the motivation to create a lower embodied version of KILON?

We are facing serious environmental challenges, and we urgently need to minimise (GHG) emissions to limit global warming. The construction sector significantly contributes to these emissions, and we have a responsibility to support the climate transition.

Kingspan is committed to Planet Passionate, our environmental sustainability programme aimed at positively impacting climate change, circularity and protection of the natural world. Across Kingspan divisions, we have been working on transitioning to renewable energy to minimise the carbon footprint of our manufacturing process. Another critical target is to minimise emissions related to our raw materials by using lower carbon raw materials and incorporating recycled content where possible. This is why we decided to create a lower embodied carbon (LEC) version of KILON Multiwall polycarbonate sheets.

Q: How does the creation of KILON LEC contribute to the division's product innovation roadmap?

Across Kingspan, we are developing a lower embodied carbon product portfolio to reduce the embodied carbon of our offerings and promote circularity. KILON LEC is Kingspan Light, Air + Water's first lower embodied carbon product. Polycarbonate sheets are used in a broad range of daylighting solutions, and by using a lower embodied carbon version, we can contribute to reducing the embodied carbon of many products in our portfolio.

Q: Where do you see KILON LEC adding real value to both the business and to your customers' projects?

I believe that KILON LEC marks the beginning of a new era of lower embodied carbon products. This will lead to a comprehensive range of lower embodied carbon products for our customers, such as skylights, smoke vents, and much more. The real value lies in providing customers with multiple options to reduce the embodied carbon of their projects. And if our customers are happy, and we meet their demands for sustainable solutions, that also is also brings value to the business.

"As a division, we are continually challenging ourselves to find new processes and approaches that not only meet the needs of our customers, but that support the transition to a more resource efficient future. We know the construction industry is the largest consumer of raw materials, meanwhile there is a huge global issue with material waste, especially of plastics. Exploring new material compositions that use post-consumer waste without compromising the quality and performance we pride ourselves in is one way we are progressing towards the circularity and decarbonisation targets of the Kingspan Group within our business."

Dr. Miguel A. Paya-Marin,
Head of Strategic Projects and Innovation, Kingspan Light, Air + Water



BIO-BASED PRODUCTS HIGHLIGHTS

INTRODUCING HEMKOR



In 2023, we launched HemKor®, a product range which is largely made from hemp and offers products with a bio-based content of at least 80%, tested according to the NCS 16785:2016 certification scheme for bio-based products. One of the feature products, HemKor Jute Blend, also contains fibres from recycled jute bags, next to hemp fibres. The product can be used in multiple building applications, including timber frame walls, pitched roofs (inside) and partition walls.

As part of Planet Passionate, we strive to improve the environmental performance of our products. The introduction of the HemKor product range to our insulation portfolio is a key step in our product decarbonisation journey.

BIOMATERIALS FORUM

In 2024, we held our inaugural Biomaterials forum in the IKON innovation centre, in which we explored ways to advance and harness the potential of bio-based materials such as hemp and wood fibre, as well as biopolymers and bioprocessing in a built environment.

The event brought together leading industry experts, renowned academic and pioneering researchers to discuss innovative solutions to reduce embodied carbon and share insights on cutting-edge biotechnology and the evolving EU landscape for the bio-based supply chain.

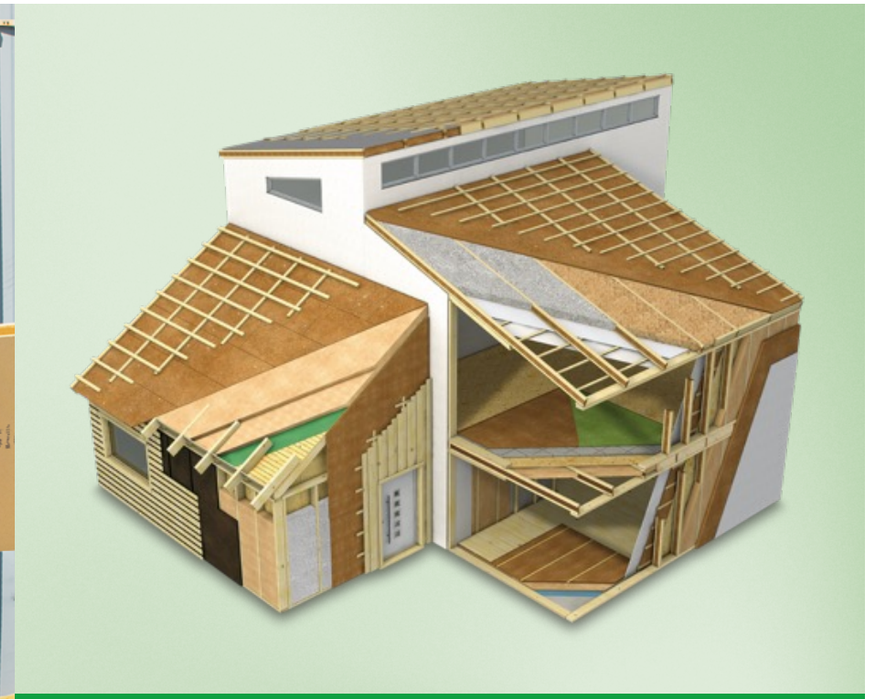
The event included speakers from a number of organisations including Dr. Michael Makas, Head of R&D and Quality in STEICO who showcased our cutting-edge wood-based building products.

"Our first Biomaterials Forum at Kingspan IKON was a huge success thanks in no small part to excellent contributions from the guest speakers, my Kingspan colleagues and a very engaged audience."

Dr. Karl Crowley
IKON Strategic Initiatives and Partnerships Manager







STEICO building products are made from 100% responsible sourced wood.

STEICO's passion for wood runs deep and is ingrained in its DNA. It has been driven by the vision of elevating natural resources to new heights from the outset, through innovation and optimisation.

Today, STEICO is a global leader in wood fibre insulation and a leading supplier of innovative timber-based construction products.

It offers solutions for use in almost the entire building envelope, from roofs, walls and ceilings to floors and facades. Products include a variety of both insulation and structural timber systems, supporting customers in the achievement of their sustainability goals.

2 INSULATE & GENERATE

We aim to develop novel solutions that enhance the functionality of the building envelope through superior energy efficiency and renewable energy generation.

Insulate and generate captures our goal to provide our customers with products which, not only offer high thermal performance but have an active contribution to the operation of the building.

Kingspan has to date developed 3 Solar products including PowerCanopy, PowerPlus KS1000RW and PowerPanel, to be launching quarter 1 of 2025.

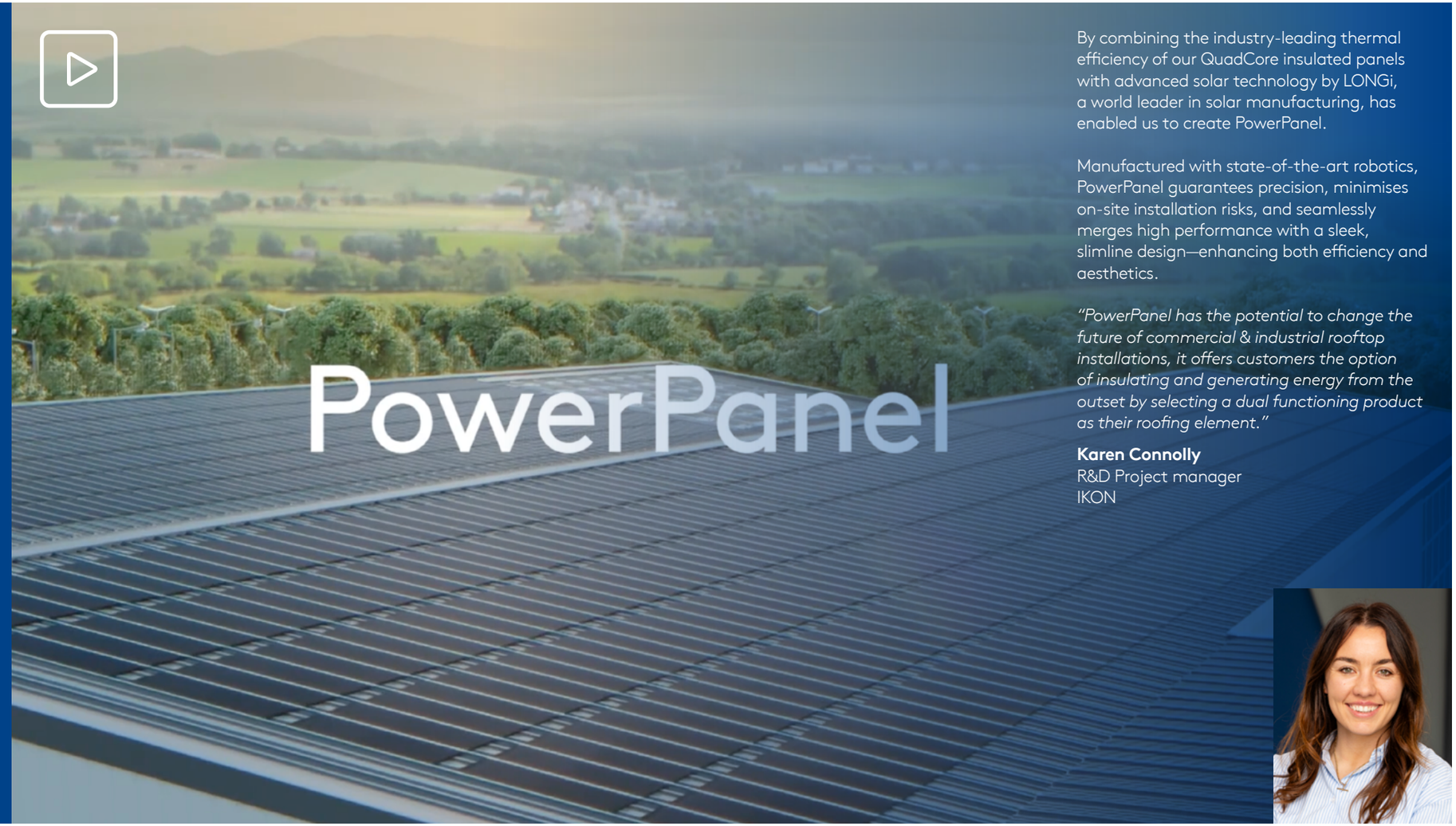
POWERPANEL

Power panel is an innovative solution that embodies the future of sustainable construction: a fully integrated, factory manufactured insulated panel with solar PV.

This solution is the result of meticulous planning and design by our in-house engineering team. It is a bespoke design, tailor-made to meet our unique requirements. We have worked closely with our trusted suppliers to customize the PV module, ensuring a seamless integration process.

One the most significant advantages of this solution is the efficiency and reduction in complexity it brings to a construction site. By integrating insulation and solar PV in a factory-controlled environment, we eliminate many of the challenges faced during onsite installations.

Our vision for the future is clear: we aim to see every roof equipped with this integrated solar solution, making sustainability accessible and convenient for everyone.



By combining the industry-leading thermal efficiency of our QuadCore insulated panels with advanced solar technology by LONGi, a world leader in solar manufacturing, has enabled us to create PowerPanel.

Manufactured with state-of-the-art robotics, PowerPanel guarantees precision, minimises on-site installation risks, and seamlessly merges high performance with a sleek, slimline design—enhancing both efficiency and aesthetics.

"PowerPanel has the potential to change the future of commercial & industrial rooftop installations, it offers customers the option of insulating and generating energy from the outset by selecting a dual functioning product as their roofing element."

Karen Connolly
R&D Project manager
IKON

PLANET PASSIONATE COMMUNITIES



COMMUNITIES MAP

EUROPE
APAC
THE AMERICAS

RECYCLING LIGHT, AIR + WATER KLA NA, USA

Giving clothes, shoes and electronics a new lease of life

Teams in Terrell, Wausau and Lake Forest, North America, brought in old/unworn shoes and clothing to be donated to local groups that help get them back into the community. Employees also participated in an electronics drive, which allowed their used and broken small electronics to be properly recycled.

NATURE INSULATED PANELS BALEX METAL, POLAND

Balex Metal goes above and beyond in Bolszewo

The Balex Metal team joined forces with local partners to clean up Bolszewo, collecting more than 200kg of trash. The team then participated in a workshop on building hives for wild bees – the youngest Balex team members were buzzing with excitement!

CLEAN-UP INSULATED PANELS KINGSPAN, COLOMBIA

Kingspan Colombia commits to the community

The team took to the beaches in Cartagena to collect trash and make sure the area could be enjoyed by everyone.

NATURE ROOFING + WATERPROOFING ONDULINE, INDONESIA

The Planting of 1,000 trees

The 'Planting of 1,000 trees' event saw the Onduline Indonesia team plant 150 she-oaks and 850 mangroves in Pasuruan, East Java. Recognised for their roles in reducing soil erosion and improving water quality, the team hopes planting these trees will contribute to the preservation and recovery of the local environment and coastal ecosystem.

Regions

1. UK
2. Switzerland
3. Sweden
4. Netherlands
5. France
6. Germany
7. Spain
8. Italy
9. Ireland
10. Denmark
11. Finland
12. Norway
13. Belgium
14. Romania
15. Hungary
16. Czech Republic
17. Lithuania
18. Poland
19. Austria
20. Serbia
21. Slovakia
22. Turkey
23. USA
24. Brazil
25. Colombia
26. Canada
27. Australia
28. Indonesia
29. Thailand

Europe | The Americas | APAC

PLANET PASSIONATE COMMUNITIES

WHILST OUR PLANET PASSIONATE STRATEGY SPEARHEADS OUR EFFORTS TO CURB OUR ENVIRONMENTAL IMPACTS, WE ARE ALSO SUPPORTING OUR LOCAL COMMUNITIES IN IMPLEMENTING ENVIRONMENTAL AND WELLBEING PROJECTS.

We aim to adhere to all applicable laws and regulations in all countries we operate in and to align with the needs and expectations of our stakeholders as a priority. Simultaneously, we understand that cooperation with our stakeholders is of paramount importance to reach our business objectives, grow as a business and contribute to sustainable development. At Kingspan, we define stakeholders as individuals or groups that have interests that are affected or could be affected by our activities. Maintaining an open dialogue has allowed us to build strong relationships in our value chain and local communities, as well as across the construction industry.

In 2021, we launched Planet Passionate Communities, the philanthropic arm of our Planet Passionate programme. This initiative is designed to give people and communities around the world the support they need to implement environmental and wellbeing projects, ultimately enriching life in the community.

At the heart of Planet Passionate Communities is an ambition to create a positive legacy and a better world, and it is already having a real impact, both locally and globally. Locally, our businesses are devoting their time and resources to support community projects.

On a global level, we have joined forces with GOAL, the international humanitarian response agency, in a five-year partnership that will make the lives better for some of the world's most vulnerable people. Over those five years, we will be providing them with the expertise, products and financial contributions they desperately need in their rapid responses to complex global issues. Our joint aim is to develop critical infrastructure in healthcare and education with sustainability at its core.





SAYRI MOLINA WARD PROJECT UPDATE

Kingspan and GOAL have worked hand-in-hand to build a new 400 sqm 12-bed ward beside the Puerto Cortes hospital in Honduras. The hospital was hit hard by the outbreak of COVID-19 as patient numbers soared, overextending the hospital's capacity but also unveiling critical structural limitations that needed to be addressed.

The new wing was designed to boost the hospital's capacity and provide essential recovery wards for hospitalised patients. In addition to donating building materials and financial support for the project, Kingspan contributed technical expertise and training throughout the construction process.

Construction began in July 2023 and by the end of 2024 the new ward was complete, with final functional enhancements expected in early 2025.

ABOUT GOAL

Humanitarian aid agency GOAL was founded in 1977 and is headquartered in Dublin. Over the last four decades, you will find GOAL responding to major humanitarian crisis after crisis. Today, it is working with vulnerable communities in 13 countries to help those facing poverty, conflict, hunger and climate change. GOAL brings emergency food and shelter when a crisis strikes; expertise and resources to strengthen health care systems; training leading to meaningful work and income; and education and support to fight hunger.

CLEANING UP OUR COMMUNITIES
PROJECT HIGHLIGHTS

Insulation
Logstor

LOGSTOR GOES A LONG WAY FOR THE COMMUNITY

LOGSTOR teams in Germany and Finland participated in clean-up events to help tidy the local area. The LOGSTOR team in Switzerland took it to the next level, collaborating with IGSU – the organisers of the national Clean-Up Day – to create a national campaign for the 2024 event. This resulted in more than 60,000 people collecting over 450 tonnes of waste together on Clean Up Day.

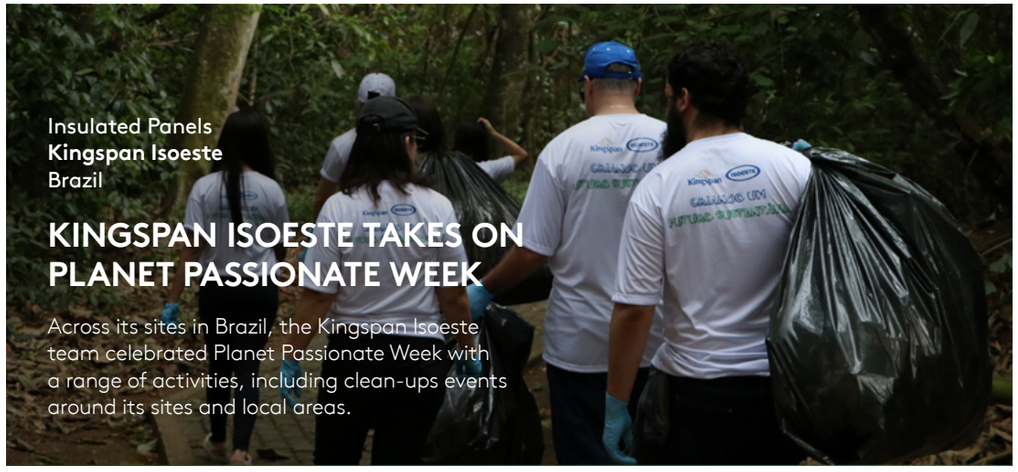




Tate, UK
Data Solutions

TATE TAKES TO THE STREETS TO CLEAN-UP TRASH

The Tate UK teams in London and Hull played their part to help tackle litter during Planet Passionate Week 2024.



Insulated Panels
Kingspan Isoeste
Brazil

KINGSPAN ISOESTE TAKES ON PLANET PASSIONATE WEEK

Across its sites in Brazil, the Kingspan Isoeste team celebrated Planet Passionate Week with a range of activities, including clean-ups events around its sites and local areas.



Roofing + Waterproofing
alwitra
Germany

MOSEL RIVERBANK CLEAN-UP

Armed with gloves, trash bags and plenty of motivation, a team of 30 from alwitra's administration department set out to clean up the Mosel riverbank in Trier, Germany. Along the way, the team collected plastic bottles, plastic bags and a range of other debris that could have made its way into the river.

WELLBEING AND EDUCATION
PROJECT HIGHLIGHTS

Light, Air + Water
Global

KINGSPAN CREATES 33 TOILET TWINS WITH TEARFUND

Kingspan Light, Air + Water is supporting Tearfund's Toilet Twinning program to improve sanitation and hygiene globally. This partnership aims to provide hygiene education and build toilets in impoverished communities. Kingspan has twinned 33 toilets to support communities, with a focus on those in Malawi. Each site received a certificate to inspire meaningful discussions on the importance of water and sanitation.



Wetterbest
Romania

WETTERBEST OPENS THE DOORS TO THE SCHOOL OF LIFE!

Students from the Dumitru Ghenoiu secondary school and Constantin Cantacuzino Technological High School in Băicoi, Prahova County, were welcomed to the Wetterbest site in Romania to attend a factory tour and a workshop on sustainability topics, including circularity.

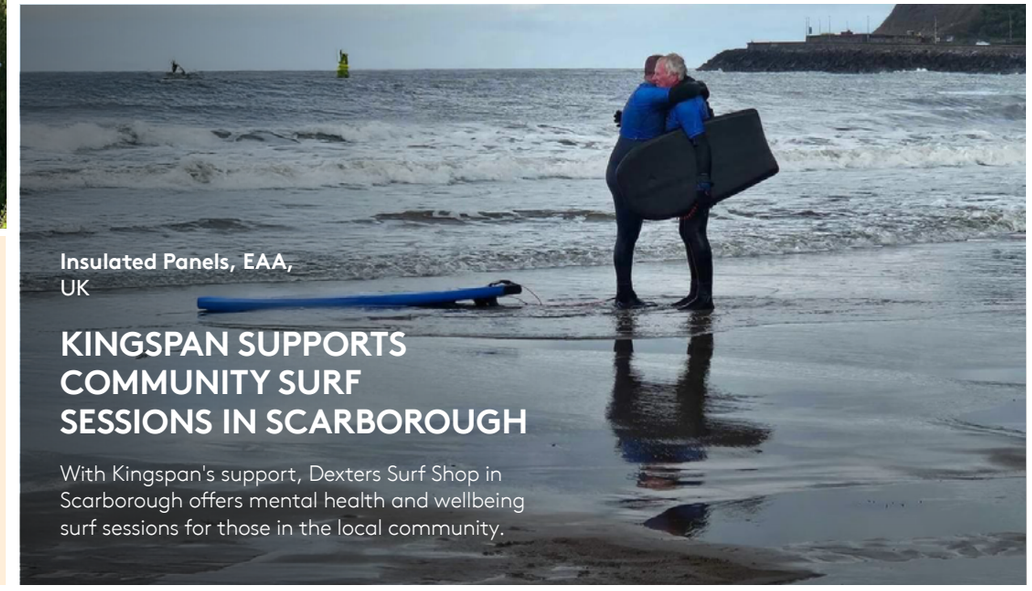




Insulation
Germany

GREENHOUSE FOR CHILDREN'S HOME

The team in Burkhardtsdorf donated and built a greenhouse for a local children's home, allowing the children to grow their own fruits and vegetables.



Insulated Panels, EAA,
UK

KINGSPAN SUPPORTS COMMUNITY SURF SESSIONS IN SCARBOROUGH

With Kingspan's support, Dexters Surf Shop in Scarborough offers mental health and wellbeing surf sessions for those in the local community.

NATURE
PROJECT HIGHLIGHTS

Insulated Panels
North America,
Columbus, Ohio, US

KIP NORTH AMERICA GIVES BACK TO NATURE

The Kingspan Insulated Panels North America team in Columbus, Ohio planted, potted and tied together over 3,000 tree seedlings. The planted trees were later handed out to the local community.

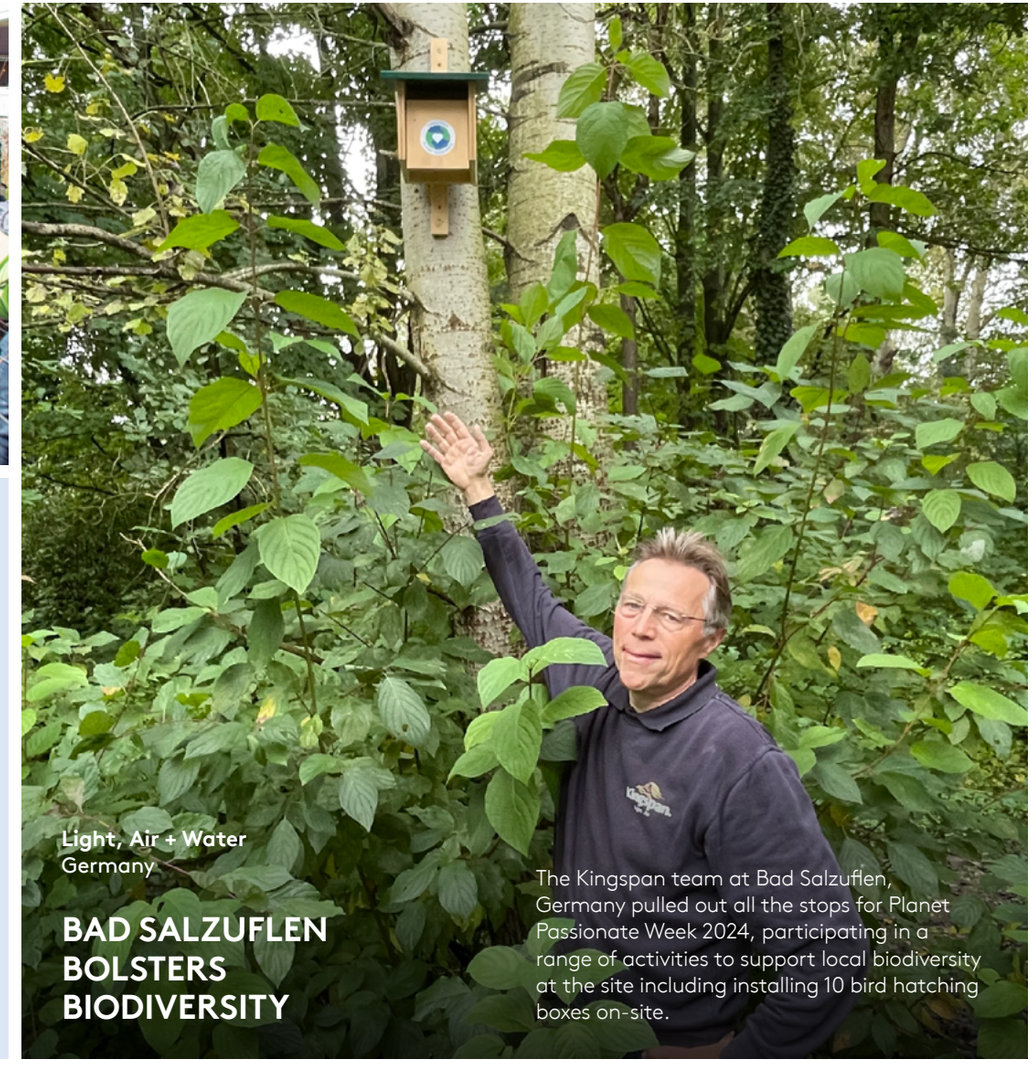




Data Solutions
Tate US
Jessup, Maryland, US

TATE US SUPPORTS LOCAL BEEHIVE

Tate US sponsored a local beehive and visited the site to get an up-close look at the honey-making process, where the team also discovered the importance of bees and the role they play in our environment.



Light, Air + Water
Germany

BAD SALZUFLEN BOLSTERS BIODIVERSITY

The Kingspan team at Bad Salzuflen, Germany pulled out all the stops for Planet Passionate Week 2024, participating in a range of activities to support local biodiversity at the site including installing 10 bird hatching boxes on-site.

APPENDICES

A1: Planet Passionate Metrics
A2: Environmental Indicators
A3: Assurance Statement

PHOTOGRAPHY CREDITS:
Building Image (p.10): David Norton Photography
Building Image (p.14): David Norton Photography
rePurpose Partnership (p.35): rePurpose Global
4ocean Partnership (p.35): 4ocean
Clearbot Partnership (p.36): Clearbot
Seabin™ Partnership (p.36): Seabin™
GOAL Partnership (p.47): GOAL

APPENDICES
A1: PLANET PASSIONATE METRICS

Planet Passionate Targets		Target Year	Underlying Business[1]					Whole Business[2]				
			2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Carbon	Net Zero Carbon Manufacturing - scope 1 & 2[3] GHG emissions (tCO_2e)	2030	409,746[4]	389,167[4]	243,714[4]	111,596[4]	82,865	870,482[4,5]	877,294[4,5]	689,103[4,5]	463,454[4,5]	337,837[5]
	50% reduction in product CO_2e intensity from primary supply chain partners (%)	2030	-	1.6[4]	3.1[4]	4.1[4]	3.9	-	1.6[4]	3.1[4]	4.1[4]	3.9
	Scope 1 & 2 Rebaselined (tCO_2e)		-	-	-	-		460,737	461,197	346,610	287,097	3,809
	Scope 3 Key raw materials (tCO_2e/t)		2.540[4]	2.499[4]	2.461[4]	2.435[4]	2.440	2.540[4]	2.499[4]	2.461[4]	2.435[4]	2.440
	Zero emission company cars[6] (annual replacement %)	2025	11	29	60	70	89	11	28	58	69	86[7]
	No. of replacement cars (annual conversion)		296	695	683	538	397	296	717	745	692	527[7]
	No. of electric cars (annual conversion)		32	202	411	374	354	32	204	435	475	453[7]
Energy	60% Direct renewable energy (%)	2030	19.9[4]	26.1[4]	35.1[4]	38.8[4]	43.3	19.9[4]	25.3[4]	34.5[4]	35.1[4]	59.4
	20% On-site renewable energy generation (%)	2030	4.9	5.1	7.4	9.9	10.2	4.9	4.9	7.3	8.8	30.3
	Solar PV systems on all wholly owned facilities (%)	2030	20.7[4]	28.4[4]	39.64	53.6[4]	64.0	20.7[4]	24.8[4]	33.9[4]	49.6[4]	56.8
	Renewable Energy Purchased and Used (GWh)		100.8[4]	162.0[4]	201.74	199.1[4]	226.0	100.8[4]	165.6[4]	240.0[4]	260.5[4]	753.2
	Onsite renewable energy generated and consumed (GWh)		26.3	27.4	36.9	48.1[4]	50.7	26.3	27.8	46.7	66.5[4]	746.6
	Onsite renewable energy generated (GWh)		31.1	37.1	50.6	63.1[4]	65.1	31.1	37.4	60.5	81.8[4]	764.8
	Total Energy Use (GWh)		637.4[4]	724.9[4]	679.94	636.7[4]	639.5	637.4[4]	765.8[4]	832.0[4]	932.7[4]	2,526.1
	No. of wholly owned sites		92[4]	95	96	97[4]	100	92[4]	109[4]	124[4]	133[4]	139
	Wholly owned sites with Solar PV		19	27[4]	38[4]	52[4]	64	19	27[4]	42[4]	66[4]	79
Circularity	Zero Company waste to landfill (tonnes)	2030	18,622[4]	16,088[4]	9,800[4]	8,288[4]	7,088	18,622[4]	16,903[4]	11,546[4]	12,393[4]	12,536
	Recycle 1 billion PET bottles into our manufacturing processes (million bottles)	2025	573	843	803	858	1,102	573	843	803	858	1,102
	QuadCore® products utilising recycled PET (sites)	2025	1	1	3	8	12	1	1	3	8	12
Water	Harvest 100 million litres of rainwater (ML)	2030	20.1	20.5	27.3	56.4[4]	62.1	20.1	20.5	27.4	56.7	63.2
	Support 5 Ocean Clean-Up projects (No. of projects)	2025	1	2	3	4	5	1	2	3	4	5

1: Underlying Business includes manufacturing, assembly, and R&D sites within the Kingspan Group in 2020 plus all organic growth to date.
2: Whole Business includes manufacturing, assembly, and R&D sites within the Kingspan Group, excluding acquisitions made after 30th September 2024 and three minor sites acquired in 2023, which have negligible environmental impacts due to data unavailability.
3: Excluding biogenic emissions. Scope 2 GHG emissions calculated using market-based methodology.
4: Restated figures due to improved data collection, change in calculation methodologies and site disposal.
5: GHG emissions were recalculated due to acquisitions that occurred in 2021 through to 30th September 2024.
6: Kingspan defines a 'zero emissions car' as a vehicle with zero tailpipe emissions. The boundary does not include the energy used to power the vehicle or the embodied emissions from manufacturing.
7: Due to data unavailability, STEICO and Mineral insulation are excluded.

APPENDICES
A1: PLANET PASSIONATE METRICS (CONT'D)

Planet Passionate targets		
Category	**Target**	**Definition**
Carbon	Net Zero Carbon Manufacturing	Minimum 90% absolute reduction in absolute scope 1 & 2 (market-based methodology) greenhouse gas (GHG) emissions (excluding biogenic emissions) with any residual GHG emissions (maximum 10%) neutralised. Only hard-to-abate GHG emissions will be neutralised with the use of high-quality credits that lead to an additional climate impact that is permanent and accurately quantified.
	50% reduction in product CO_2e from key supply partners	We aim to achieve a 50% reduction in the carbon (CO_2e) intensity of the primary raw materials supplied to Kingspan by 2030.
	Zero emissions company cars	Definition of a zero emissions car is a car with zero emissions at the tailpipe/in use, in line with Regulation (EU) 2019/631. The target boundary included all employee cars provided and funded by the company (car allowances). The reported annual renewals vehicles converted to electric vehicles does not include car allowances as these vehicles may not be converted annually. Kingspan defines a 'zero emissions car' as a vehicle with zero tailpipe emissions. The boundary does not include the energy used to power the vehicle or the embodied emissions from manufacturing.
Energy	60% Direct renewable energy	Energy is classed as 'direct renewable energy' if used to directly power our manufacturing processes (i.e. on-site renewable energy generation consumed) or via a purchase of renewable energy products from energy suppliers. This target includes purchased "Direct renewable energy" and renewable energy generated and consumed on-site.
	20% On-site renewable energy generation	Renewable energy generated on-site, both consumed and exported, calculated as an equivalent percentage of total energy consumption.
	Solar PV systems on wholly owned sites	Percentage of all sites that are wholly owned by the Kingspan Group (both land and buildings) that have rooftop solar PV systems installed.
Circularity	Zero Company waste to landfill	Minimum 90% landfill diversion of wastes generated in Kingspan manufacturing, R&D, and assembly facilities.
	Recycle 1 billion PET bottles into our manufacturing processes	Target to incorporate recycled PET to the equivalent weight of 1 billion PET bottles into our manufacturing processes annually by 2025
	QuadCore® products utilising recycled PET	The completion of pre-certification testing for QuadCore® products that utilising recycled PET polyol at 17 QuadCore® manufacturing sites across the Group.
Water	Harvest 100 million litres of rainwater	Capacity to harvest 100 million litres of rainwater per annum on Kingspan sites, with onwards use for all harvested water e.g. consumed, sold, or donated.
	Support 5 Ocean clean-up projects	Support five ocean clean-up projects by 2025 to help reduce marine pollution across the world's oceans.

APPENDICES
A2: ENVIRONMENTAL INDICATORS

	2020	2021	2022	2023	2024
Energy (MWh)					
Total energy consumption[1]	637,370	765,814	831,986	932,665	2,526,110
Total fossil energy consumption	510,294	572,121	544,914	605,325	1,024,081
Share of fossil sources (%)	80%	75%	65%	65%	41%
Coal and coal products	0	0	0	0	126,816
Crude oil & petroleum products	86,271	107,220	105,073	94,742	103,580
Natural gas	279,616	331,389	334,979	415,924	607,973
Other fossil sources[2]	19,822	27,489	24,116	15,381	8,801
Purchased electricity/heat/steam/ cooling from fossil sources[3]	124,585	106,023	80,746	79,278	176,911
Consumption from nuclear sources[3]	N/A	N/A	N/A	N/A	N/A
Total renewable energy consumption	127,076	193,693	287,072	327,340	1,502,029
Share of renewable sources (%)	20%	25%	35%	35%	59%
Renewable fuel	18,416	22,170	52,276	65,272	1,087,895
Purchased renewable electricity/heat/steam/ cooling from renewable sources	97,747	159,387	216,512	237,141	384,694
Self-generated, non-fuel	10,913	12,136	18,284	24,927	29,440
Total energy production[1]	42,099	52,582	73,466	90,320	814,259
Non-renewable energy production	10,993	15,147	13,011	8,555	49,506
Renewable energy production[1]	31,106	37,435	60,455	81,765	764,753

Note. Boundary: Whole Business includes manufacturing, assembly, and R&D sites within the Kingspan Group, excluding acquisitions made after 30th September 2024 and three minor sites acquired in 2023, which have negligible environmental impacts due to data unavailability.
1 Includes restated figures for historical data due to improved data collection & change in calculation methodologies.
2 Includes other non-renewable, non-fossil sources.
3 We're not actively sourcing energy from nuclear sources; however, the non-renewable electricity we purchase might include nuclear sources.

	2020	2021	2022	2023	2024
Carbon (tCO_2e)					
Gross Scope 1 GHG emissions[1]	606,488	594,753	445,154	264,707	227,672
Biogenic CO_2 emissions[1]	386,604	479,655	454,915	356,644	394,948
Gross location-based Scope 2 GHG emissions[1]	254,940	255,969	223,304	204,383	216,093
Gross market-based Scope 2 GHG emissions[1]	263,994	282,541	243,949	198,747	110,165
Scope 3 (tCO_2e)	**8,130,451**	**9,688,866**	**8,560,679**	**7,684,446**	**6,990,923**
Purchased goods and services[1]	6,680,401	8,163,984	7,486,560	6,846,605	6,375,447
Capital goods[1]	85,081	81,562	106,575	207,272	133,995
Fuel and energy related activities[1]	34,001	48,179	50,518	86,069	139,579
Upstream transportation and distribution[1]	297,778	292,795	190,161	291,311	222,506
Waste Generation in operations[1]	4,874	7,512	5,592	11,387	4,918
Business travel[1]	46,116	44,524	58,214	73,910	23,849
Employee commuting[1]	30,300	31,723	29,571	29,550	33,229
Use of sold products[1]	497,975	529,956	329,629	54,978	6,048
End of life treatment of sold products[1]	453,925	488,631	303,859	83,364	51,352
Total GHG emissions (location-based)[1]	8,991,879	10,539,588	9,229,137	8,153,536	7,434,688
Total GHG emissions (market-based)[1]	9,000,933	10,566,160	9,249,782	8,147,900	7,328,760
Non-HFC process emissions (not included in Scope 1)[1]	7,038	8,142	10,514	11,518	12,354

Note 1. Boundary: Whole Business includes manufacturing, assembly, and R&D sites within the Kingspan Group, excluding acquisitions made after 30th September 2024 and three minor sites acquired in 2023, which have negligible environmental impacts due to data unavailability. Sources excluded (e.g. offices) are not believed to be material.
Note 2. Significant changes: In 2024, we made significant changes to the definition of our reporting boundary due to strategic acquisitions. We acquired control of STEICO through a majority stake and also completed the acquisition of Bachl. We recalculate both base and interval years in line with the GHG Protocol's guidance, to allow for better and more accurate year-on-year comparability.
Note 3. GHG emissions include the following GHG gases: CO2, CH4, N2O and HFCs. PFC, SF6, and NF3 are not included as they are not considered to be associated with our inputs.

1: Includes restated figures due to improved data collection, change in calculation methodologies and recalculations due to acquisitions.

APPENDICES
A2: ENVIRONMENTAL INDICATORS (CONT'D)

	2020	2021	2022	2023	2024
Circularity (tonnes)					
Waste Generated*	94,243	112,931	138,051	148,514	172,261
Non-hazardous waste*	87,391	105,212	128,125	141,260	163,367
Hazardous waste*	6,852	7,718	9,927	7,255	8,894
Waste generated by disposal type					
Recycling & Reuse*	64,248	75,663	95,749	104,117	119,809
Incineration & Recovery, including energy recovery*	11,372	20,326	30,599	31,830	39,746
Landfill*	18,622	16,903	11,546	12,393	12,536
Rest*	1	39	158	174	171
Water(m^3)					
Total water withdrawal*	437,587	552,351	666,765	796,836	2,223,073
Third-part water*	345,545	411,509	461,719	524,422	592,289
Ground water*	71,991	120,305	177,604	215,677	242,314
Harvested rainwater*	20,051	20,529	27,442	56,737	63,168
Surface water*	0	9	1	0	1,325,301
Air Emissions (t)					
NOx	N/A	240	263	280	835
SOx	N/A	28	23	17	596

Note. Boundary: Whole Business includes manufacturing, assembly, and R&D sites within the Kingspan Group, excluding acquisitions made after 30th September 2024 and three minor sites acquired in 2023, which have negligible environmental impacts due to data unavailability. Sources excluded (e.g. offices) are not believed to be material.
* Includes restated figures due to improved data collection, change in calculation methodologies and recalculations due to acquisitions.



APPENDICES
A3: ASSURANCE STATEMENT

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Independent practitioner's assurance report to The Directors of Kingspan Group plc

Scope

We have been engaged by Kingspan Group plc (Kingspan) to perform a 'limited assurance engagement,' as defined by International Standards on Assurance Engagements, here after referred to as the engagement, to report on Kingspan's (the 'Company's') selected Subject Matter information (the 'Subject Matter') contained in Kingspan's (the 'Company's') Planet Passionate Report for the year ended 31 December 2024 (the 'Report'). The Subject Matter comprises the following:

Metric	Quantity	Units	Page number[4]
Scope 1 GHG emissions[2]	227,672	Tonnes CO_2e	54
Biogenic Scope 1 GHG emissions[2]	394,948	Tonnes CO_2e	54
Scope 2 GHG emissions (Location-based)[1,2]	216,093	Tonnes CO_2e	54
Scope 2 GHG emissions (Market-based)[1,2]	110,165	Tonnes CO_2e	54
Scope 3 GHG Emission Categories[3]: C1: Purchased goods & services C2: Capital goods C3: Fuel & energy related C4: Upstream transport & distribution C5: Waste generated in operations C6: Business travel C7: Employee commuting C11: Use of sold products C12: End-of-life treatment of sold products	**Total: 6,990,923** C1: 6,375,447 C2: 133,995 C3: 139,579 C4: 222,506 C5: 4,918 C6:23,849 C7: 33,229 C11: 6,048 C12: 51,352	Tonnes CO_2e	54
Non-HFC Process Emissions (not included in Scope 1 emissions)	12,354	Tonnes CO_2e	54
Total Energy Use	2,526.1	GWh	52
On-site renewable energy generation	764.8	GWh	52
% of wholly owned facilities with installed solar PV systems	56.8	%	52
Water withdrawal	2,223,073	m^3	55
Rainwater harvested and consumed	63,168	m^3	55
Waste generation	172,261	Tonnes	55
Waste to landfill	12,536	Tonnes	55
Annual conversion of company replacement cars to Electric Vehicles (EV)	86	%	52
PET bottles recycled into Kingspan's manufacturing processes	1,102	Million bottles	52

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Metric
Note 1: Scope 2, Location-based and Scope 2, Market-based are defined in the GHG Protocol Scope 2 Guidance, 2015
Note 2: GHG emissions were calculated using Global Warming Potentials from IPCC AR4 and AR5.
Note 3: Scope 3 is defined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, 2011
Note 4: Page numbers refer to Kingspan's Planet Passionate Report 2024

Other than as described in the preceding table, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

Criteria applied by Kingspan

In preparing the Subject Matter, Kingspan applied the World Resources institute Greenhouse Gas Protocol and Kingspan's specific criteria as described in the definitions in Appendix A1 of the Planet Passionate Report (Criteria). Such Criteria were specifically designed for Kingspan. As a result, the subject matter information may not be suitable for another purpose.

Kingspan's responsibilities

Kingspan's management is responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained. We conducted our engagement in accordance with the *International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* (ISAE 3000 (Revised)) and the *International Standard on Assurance Engagements (ISAE 3410), Assurance Engagement on Greenhouse Gas Statements*, and the terms of reference for this engagement as agreed with Kingspan on 14 February 2025. Those standards require that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error. We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Our independence and quality management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, and have the required competencies and experience to conduct this assurance engagement. EY also applies International Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires that we design, implement and operate a system of quality management including policies or procedures regarding

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compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance. Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems. A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information and applying analytical and other appropriate procedures. Our procedures included:

- Interviews with those responsible to confirm our understanding of Kingspan's business model and operations; GHG emissions sources; operation of oversight on the Subject Matter to assurance; and controls relating to the Subject Matter subject to assurance;
- A desktop review to assess GHG emissions and any potential risks of misstatement within the datasets;
- Preparation of a data trend analysis of the Subject Matter;
- Review of calculations, calculation methods and emission factors for completeness, accuracy and consistency;
- Review of the Subject Matter narrative included in the 2024 Planet Passionate Report for consistency with our limited assurance testing results and review of any limitations or assumptions.

Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the Subject Matter for the year ended 31 December 2024, in order for it to be in accordance with the Criteria.

Restricted use

Our assurance work has been undertaken so that we might state to the Directors those matters we are required to state to them in a limited assurance report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Entity and its Directors, as a body, for our limited assurance work, for this report, or for the conclusions we have formed.

Ernst & Young

Ernst & Young
Dublin, Ireland

26 February 2025

THE AMERICAS
SOLAR, WIND AND HEAT GENERATION ON-SITE

- Biomass
- Ground Air Source
- Solar Thermal
- Solar PV
- Wind
- Hydro
- CHP

Winchester
United States

Solar PV (1,365 kWp)



Vista
United States

Solar PV (801 kWp)



Lake Forest
United States

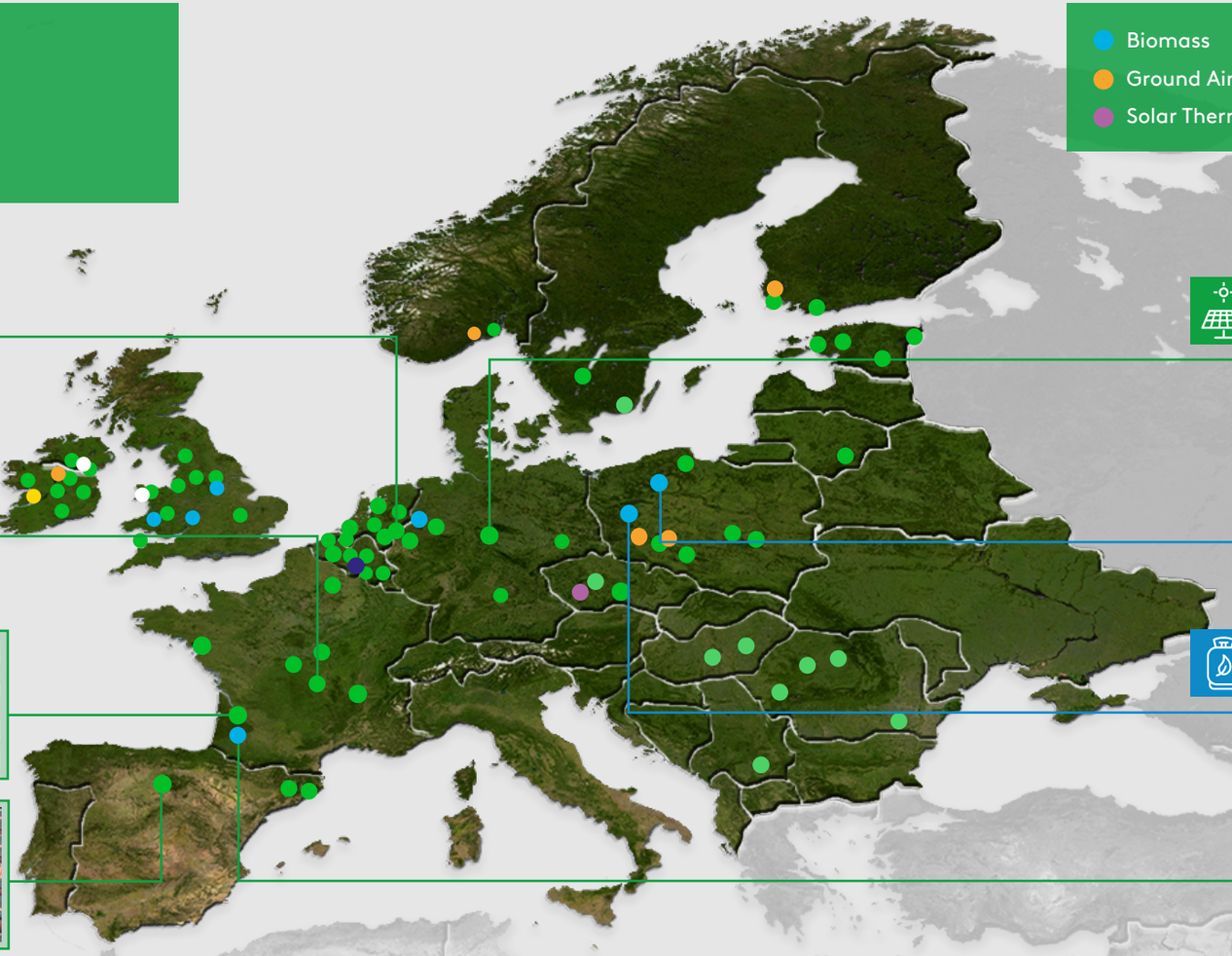
Solar PV (382 kWp)



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EUROPE
SOLAR, WIND AND HEAT GENERATION ON-SITE



- Biomass
- Ground Air Source
- Solar Thermal
- Solar PV
- Wind
- Hydro
- CHP

Cuijk-Katwijk (KLAC)
Netherlands

Solar PV (286 kWp)

Lempdes
France

Solar PV (429 kWp)

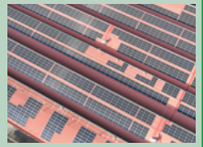
Haguetmau
France

Solar PV (362 kWp)



Burgos
Spain

Solar PV (1,550 kWp)



Hildesheim
Germany

Solar PV (292 kWp)



Czarnkow
Poland

Biomass Boiler

Czarna Woda
Poland

Biomass Boiler



Casteljaloux
France

Biomass Boiler

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ASIA AND OCEANIA
SOLAR, WIND AND HEAT GENERATION ON-SITE

- Biomass
- Ground Air Source
- Solar Thermal
- Solar PV
- Wind
- Hydro
- CHP

Dubai
United Arab Emirates

Solar PV (10 kWp)



Penang
Malaysia

Solar PV (371 kWp)



Phu My
Vietnam

Solar PV (1,250 kWp)



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