Kingspan Group PLC - Climate Change 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Kingspan is a global provider of high performance, sustainable building products and solutions for the international property and construction industry, contributing to major environmental benefits worldwide. Over 60% of Kingspan's revenue in 2022 was derived from products which directly contribute to improving resource efficiency through the sale of energy saving building envelope solutions, including building integrated renewable energy systems, and through the sale of rainwater and wastewater management systems. Kingspan has a presence in over 80 countries with 212 manufacturing sites employing over 20,000 globally. Kingspan has five operating divisions: Insulated Panels (62%), Insulation Boards (20%), Light and Air (8%), Data and Flooring (4%), Water and Energy (3%), Roofing and Waterproofing (2%). In 2022, Kingspan's turnover increased by 28% to €8.3 billion. In 2022, Kingspan recorded another meaningful year in its contribution to lowering the CO2 emissions of buildings combined with record revenue and EBITDA touching €1 billion for the first time. Despite ongoing challenges in the global economy, we expect to see a continuation of the structural drive in favour of more sustainable buildings over the longer term.

Kingspan's mission is to accelerate a net zero emissions future-built environment with people and planet at its heart. To achieve our mission, we aim to convert construction markets to high-performance, efficient methods of construction. We enable this conversion through four core strategic pillars – Innovation, Planet Passionate, Completing the Envelope and Global.

Innovation - Kingspan's product portfolio consists of products which make a positive impact on resource efficiency, particularly our high-performance insulation solutions in relation to in-use energy and carbon saving benefits. The embodied carbon of our products is only a fraction of the carbon that is saved by the products during their use. For example, we estimate that Kingspan insulation products sold in 2022, will save 771 million MWh of energy and 173 million tCO2e over their lifetime, which compares to 7.7 million tCO2e of Scope 1, 2 and 3 emissions emitted due to their manufacture. To support our innovation led strategy and to drive continuous improvement in process and products, Kingspan invests broadly 1% of revenue annually (€60.3m in 2022 on R&D) in research & development and digital transformation. Kingspan is the only global insulated panel and insulation board manufacturer, which gives us significant scale advantage versus competitors in innovation. We continue to develop the next generation of market leading products such as QuadCore™ 2.0 and Kooltherm® 200 series, and are at the cusp of launching a market first integrated insulated roof panel with solar generation - PowerPanel®.

Planet Passionate - We recognise the need to deliver sustainable solutions in the fight against climate change and to minimise the carbon emitted due to the manufacture our products. We have committed to science-based targets covering greenhouse gas emissions from company operations and value chain (scopes 1,2 and 3) that are consistent with reductions required to keep warming to 1.5°C. Through its Planet Passionate programme, Kingspan aims to help impact on three global issues: climate change, circularity, and protection of the natural world. The overarching goals of the programme are to significantly reduce the company's environmental impact, to further enhance the environmental performance of its products and to contribute towards the achievement of the UN SDGs. Kingspan is a light manufacturing business, our Scope 1&2 emissions equated to c.385k tonnes of CO2e in 2022 and we have a clear pathway developed to achieve our target of Net Zero Carbon manufacturing in our own operations by 2030. The majority of Kingspan's carbon emissions (almost 80%) come from Purchased Goods and Services in Scope 3 emissions, at 7.3 million tonnes of CO2e. We have a Planet Passionate target to decrease raw material CO2e intensity from our primary supply partners by 50% by 2030 and a Science Based Targets initiative (SBTi) approved target to reduce absolute Scope 3 emissions by 42% by 2030, from a 2020 baseline. The key contributors to our Scope 3 emissions are metals and chemicals and we have several examples, throughout this report (see section 2) and in our annual Planet Passionate report, of how we are working with our value chain to reduce Scope 3 emissions.

In summary, the climate change agenda is at the heart of Kingspan's vision and strategy. Our strategy will deliver best in class solutions to enable our customers to reduce their environmental impact, while we also invest to reduce ours.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for
1 year

Select the number of past reporting years you will be providing Scope 2 emissions data for
1 year

Select the number of past reporting years you will be providing Scope 3 emissions data for
1 year

C0.3

(C0.3) Select the countries/areas in which you operate.

Australia
Belgium
Brazil
Canada
China
Colombia
Czechia
Denmark
Finland
France
Germany
Hungary
India
Ireland
Latvia
Malaysia
Mexico
Netherlands
New Zealand
Norway
Panama
Poland
Romania
Russian Federation
Saudi Arabia
Serbia
Slovakia
Spain
Sweden
Turkey
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Financial control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	IE0004927939

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	Kingspan's Group Chief Executive Officer (CEO) is the individual on the board responsible for climate related issues. Climate related issues are addressed through our Planet Passionate strategy. As a manufacturer of climate-related solutions, Kingspan has identified Planet Passionate as one of the four core pillars of our strategy. Our Planet Passionate strategy and progress towards our goals is therefore overseen by the Kingspan Board in its entirety. The Board will get a formal update from our Global Head of Sustainability at least annually and will approve Kingspan's annual Planet Passionate report. The Kingspan CEO, who sits on the Board, is the person at the top of the chain of command specifically managing information on climate-related issues and making decisions about what the company will do and adapting those decisions based on climate-related information. The CEO receives formal updates from the Global Head of Sustainability, the Head of Innovation and each Divisional Management Team monthly and is therefore best positioned to monitor ongoing progress towards our sustainability goals as well as the changing landscape of climate related risks and opportunities. An example of a climate-related decision made by the Kingspan CEO in 2022 was the finalisation and agreement to implement a carbon-charge across the business from 2023. Each division will be charged €70/tone carbon relating to the CO2e emitted by the division during the year. The decision to implement a carbon charge is to help manage the risk of future rising energy costs or carbon fines/charges and to foster operational conversion to more efficient, lower carbon methods of manufacturing.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding annual budgets Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	The governance mechanisms highlighted in column 2 are all scheduled board items and are on the relevant board agenda. Reviewing and guiding annual budgets – Annual budgets are reviewed annually at a convening of the whole Board in Q4. The Board will have seen the budget in advance and probe on particular areas of interest. The budget is presented by the CFO. Reviewing innovation/R&D priorities – The Board reviews the strategic plan annually in Q4. R&D plans are included in the strategic plan. The strategic plan is presented by the CEO. Overseeing and guiding employee incentives/Monitoring progress towards corporate targets – Kingspan's Remuneration Committee, a sub-committee of the Board, is responsible for setting executive incentives. The short-term award (bonus) includes a customer performance indicator (NPS) and part of that score is derived from our perceived sustainability performance. The long-term award (PSP) includes targets relating to our Planet Passionate sustainability strategy. Performance is reviewed annually in Q4. In 2022 NPS met threshold but not max. PSP including sustainability targets will vest for the first time in 2024 (assessed by RemCo in Q4 in 2023). Performance against targets is presented by the Company Secretary and Head of Sustainability. Performance against targets is presented by the Company Secretary and Head of Sustainability. Reviewing and guiding strategy – the whole Board approves the Group strategy in Q4 annually. Including the sustainability strategy. Strategy is also reviewed at other Board meetings during the year, where a divisional MD might be invited to present on current plans, including risks and opportunities relating to climate change. In 2022 the Board visited 4 sites in Brazil and Uruguay to oversee and review strategy in the region. Overseeing and guiding the development of a transition plan/Monitoring the implementation of a transition plan/Monitoring progress towards corporate targets – the whole Board is updated on the implementation of our sustainability strategy and performance against our transition plan annually in Q4 by the Global Head of Sustainability. Reviewing and guiding the risk management process – annually in Q4 there is a full risk assessment conducted by Internal Audit. The results of his assessment are presented to the Audit and Compliance Committee sub-committee of the Board in Q4. Following review, the results of this assessment are presented to the whole Board in Q1 the following year.
Sporadic - as important matters arise	Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures	<Not Applicable>	Overseeing major capital expenditures – this is done by the whole Board on a sporadic basis, as capex projects come for review (this only applies to capex projects in excess of €25m). In 2022, the Board approved a new insulated panel line in France to address opportunities for the ongoing conversion to advanced methods of construction for the mainland Europe region. These projects are presented by the CEO or a divisional MD. Overseeing acquisitions, mergers, and divestitures – mergers and acquisitions (in excess of €25m) are approved by the whole Board, on a sporadic basis, as the opportunities arise. In 2022, there were 3 major acquisitions approved by the Board, Troldtekt, Ondura Group and Derbigum. Due diligence was conducted on all three acquisitions, including their climate change impact. Risks and opportunities identified as significant were raised with the Board for consideration before approval. These projects are presented by the Head of Development and the CEO or a divisional MD.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	We consider the following criteria when assessing board member competence on climate related issues: industry experience as it relates to major manufacturing or operational businesses; industry experience of any part of our key value chain; experience on other public company boards; experience advising other companies on matters of environment, social and governance; and public equity investment experience. Based on the criteria identified the following board members have competence on climate related issues. For example: * Chairman – significant experience in the steel industry. Steel is a key raw material for Kingspan and the largest source of our Scope 3 emissions. * CEO – Kingspan's CEO has operated at a senior level in the construction industry since 1993 and has been the CEO of Kingspan since 2005. The CEO has regular formal updates with the CEO level of our key suppliers, has extensive on the ground feedback from our global management teams and customers and receives regular formal updates from key personnel related to sustainability within Kingspan. * Senior Independent Director – as a former Head of Corporate Broking, has over 16 years' experience advising corporates on matters of corporate strategy and corporate governance. * Chair of the Audit Committee in 2022 – as a former co-CEO and COO of a major European airline, has significant operational experience of a major business, he remains on the board of said airline and receives quarterly updates on their journey to be carbon neutral by 2050. In 2022, the board appointed a new independent non-executive director. The new board member brings a wealth of industry and financial experience across multiple sectors including banking, building materials and renewable energy.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Developing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
Kingspan Group's CEO is the highest management-level position with responsibility for climate-related issues within Kingspan. Kingspan's mission has been set by the CEO, our mission is to "accelerate a net-zero emissions future built environment with the wellbeing of people and planet at its heart". We set out to achieve this mission across four strategic pillars – Innovation, Planet Passionate, Completing the Envelope and Global. Climate related risks and opportunities are fully assessed and considered across all four pillars. Not all elements will be discussed at each meeting, but as has been documented in section C1.1b the topic of climate change and its associated risks and opportunities are debated and reviewed at many of the Board's bi-monthly (every 2 months) scheduled meetings. The senior executives who ultimately deliver against this strategy, report to and are directly managed by the CEO.

Our Planet Passionate strategy was developed by the CEO and the Head of Sustainability – this part of our strategy directly covers the development and integration of our transition plan, setting climate related corporate targets, monitoring progress towards those targets and value chain engagement. While the CEO is responsible for overseeing Planet Passionate, the Head of Sustainability is responsible for the ongoing management of the programme. The Planet Passionate climate-related targets form the backbone of our transition plan. Progress towards these targets is assessed at least annually by the Board.

The CEO manages the prioritisation of capital allocation between organic capex projects and M&A prospects each year, and decides which of these go forward to the Board for approval. This capital allocation support our strategies to 'Complete the Envelope' and take our offering 'Global'. The aim of these strategies is to bring a wider set of energy efficient building envelope solutions to a wider set of geographies, hence addressing assessed climate related opportunities. Any capex projects greater than €25m go before the Board for approval. In 2022 these included a new insulated panel line in France and acquisitions such as Troldekt, Derbigum and Ondura.

The Head of Innovation also reports directly into the CEO, the CEO therefore also has responsibility for overseeing the prioritisation of R&D/Innovation and its associated budget.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The incentives Kingspan provide for the management of climate related issues include both short and long-term monetary awards in the form of bonus (as % of salary) and shares. The incentive type is dependent upon level of employment seniority. Short term rewards (annual bonus): Rewarded on Group Profits arising from the maximisation of the sale of low energy building solutions. Increases in sales of energy saving products, on-site renewables and climate adaptation products all assist profits. Targets are commercially sensitive. As part of our LTIP - In 2021, Kingspan introduced an additional ESG measure recognising the importance of non-financial measures to both short- and long-term performance. The measure is based on 10 of the Planet Passionate targets against 10% of the annual performance share plan award. Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 and 2030 targets.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Chief Executive Officer (CEO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Shares

Performance indicator(s)
Progress towards a climate-related target
Reduction in absolute emissions
Increased share of renewable energy in total energy consumption
Other (please specify) (Several additional Planet Passionate targets)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Short term rewards (annual bonus): Rewarded on Group Profits arising from the maximisation of the sale of low energy building solutions. Increases in sales of energy saving products, on-site renewables and climate adaptation products all assist profits. Targets are commercially sensitive
As part of our Long-Term Incentive Plan - In 2021, Kingspan Group introduced an additional ESG measure recognising the importance of non-financial measures to both short- and long-term performance. The measure is based on 10 of the Planet Passionate targets against 10% of the annual performance share plan award. Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 and 2030 targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 & 2030 targets. For example, we have a target of achieving net zero carbon manufacturing by 2030 and 3 renewable energy targets. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.

Entitled to incentive
Other C-Suite Officer

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Shares

Performance indicator(s)
Progress towards a climate-related target
Reduction in absolute emissions
Increased share of renewable energy in total energy consumption
Other (please specify) (Additional Planet Passioante targets)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Short term rewards (annual bonus): Rewarded on Group Profits arising from the maximisation of the sale of low energy building solutions. Increases in sales of energy saving products, on-site renewables and climate adaptation products all assist profits. Targets are commercially sensitive
As part of our Long-Term Incentive Plan - In 2021, Kingspan Group introduced an additional ESG measure recognising the importance of non-financial measures to both short- and long-term performance. The measure is based on 10 of the Planet Passionate targets against 10% of the annual performance share plan award. Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 and 2030 targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 & 2030 targets. For example, we have a target of achieving net zero carbon manufacturing by 2030 and 3 renewable energy targets. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.

Entitled to incentive
Business unit manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Reduction in absolute emissions

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Short terms rewards: No group level instruction, but most Business Unit Managers are incentivised on sales and/or profits including sales of energy saving products, on-site renewables and climate adaptation products.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Long term rewards: Ten of our Planet Passionate targets, based around saving energy, carbon, water and circularity, have been selected for inclusion 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 2025 & 2030 targets. For example, we have a target of achieving net-zero carbon manufacturing by 2030 and 3 renewable energy targets. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.

Entitled to incentive
Process operation manager

Type of incentive
Monetary reward

Incentive(s)
Other, please specify (Plant managers in one Division receive monetary reward for meeting energy saving targets.)

Performance indicator(s)
Energy efficiency improvement

Incentive plan(s) this incentive is linked to
Not part of an existing incentive plan

Further details of incentive(s)
Plant managers in one Division receive monetary reward for meeting energy saving targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 & 2030 targets. For example, we have a target of achieving net zero carbon manufacturing by 2030 and 3 renewable energy targets. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.

Entitled to incentive
Environment/Sustainability manager

Type of incentive
Non-monetary reward

Incentive(s)
Internal team/employee of the month/quarter/year recognition

Performance indicator(s)
Reduction in absolute emissions

Incentive plan(s) this incentive is linked to
Not part of an existing incentive plan

Further details of incentive(s)
Recognised as a key part of the KPIs of Safety, Health & Environment Managers (SHE)

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 & 2030 targets. For example, we have a target of achieving net zero carbon manufacturing by 2030 and 3 renewable energy targets. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.

Entitled to incentive
Facilities manager

Type of incentive
Non-monetary reward

Incentive(s)
Internal team/employee of the month/quarter/year recognition

Performance indicator(s)
Reduction in absolute emissions

Incentive plan(s) this incentive is linked to
Not part of an existing incentive plan

Further details of incentive(s)
Contribution to Group-wide Planet Passionate targets by 2030 part of KPIs.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 & 2030 targets. For example, we have a target of achieving net zero carbon manufacturing by 2030 and 3 renewable energy targets. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.

Entitled to incentive
Other, please specify (Kingspan Head of Sustainability)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Shares

Performance indicator(s)
Progress towards a climate-related target
Reduction in absolute emissions
Increased share of renewable energy in total energy consumption
Other (please specify) (Additional Planet Passionate targets)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Short term rewards (annual bonus): Rewarded on Group Profits arising from the maximisation of the sale of low energy building solutions. Increases in sales of energy saving products, on-site renewables and climate adaptation products all assist profits. Targets are commercially sensitive
As part of our Long-Term Incentive Plan - In 2021, Kingspan Group introduced an additional ESG measure recognising the importance of non-financial measures to both short- and long-term performance. The measure is based on 10 of the Planet Passionate targets against 10% of the annual performance share plan award. Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 and 2030 targets.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Kingspan has set internal annual targets at Group level to help keep the business on track to achieve our ambitious Planet Passionate 2025 & 2030 targets. For example, we have a target of achieving net zero carbon manufacturing by 2030 and 3 renewable energy targets. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	Kingspan considers 2022-2025 (0-3 years) as our short-term horizon. Capex 0-3 years: plans have already been signed off and are in the process of being implemented, these plans will include new facilities to manufacture energy efficient building solutions for our customers, plans to improve energy efficiency within our own operations and plans to generate renewable energy. Opex 0-3 years: contracts with energy suppliers are generally within 0-3 years; contracts with suppliers are generally within the range 0-3 years. R&D projects targeting near-term horizon opportunities would fall within the 0-3 year time-line when considering, development, testing, certification and production. Strategic planning for revenue growth and investment generally are set over 5 years, including some of our Planet Passionate goals. However, we have found that the rate of business growth has meant that many of these are revised and change significantly before that 5 year period, hence we define 3 years as short-term.
Medium-term	3	10	Kingspan considers 2026-2033 (3-10 years) as our medium-term horizon. Strategic planning for revenue growth and investment generally are set over 5 years, including some of our Planet Passionate goals. However, we have found that the rate of business growth has meant that many of these plans are revised and change significantly before that 5 year period has complete, hence we define anything over 3 years, but still within our planning phase, as medium-term. Risks or opportunities (as defined in section C2.3a and C2.4a) which can be defined as likely but cannot be assessed over a 3 year financial planning period have been defined as medium-term. For many of these potential impacts, there remains significant uncertainty about the potential financial or physical consequences at this time.
Long-term	10	27	Kingspan considers 2033-2050 (10-27 years) as our long-term horizon, out to 2050. There remains significant uncertainty about all aspects of the business out 10 years, and beyond to 2050. We conduct internal horizon planning and encompass strategies to mitigate risks and address opportunities beyond the 10 year time horizon. However we remain very flexible in some of these long-term strategies given the degree of uncertainty. A portion of our investment and R&D budget even today will already address some of these potential long-term impacts.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Financial: Kingspan considers any risk, including climate-related risks, which have the potential to impact group trading profit (EBITA) by 5% or more as substantive. In 2022, for example, that would be any risk that would potentially impact group trading profit (EBITA) by €42 million.

Operational: Kingspan considers any operational risk which has the potential to impact operations of over 5% of the group's trading profit or manufacturing capacity as substantive. In 2022, for example, that would be any risk that would potentially impact trading profit (EBITA) by €42 million.

Strategic: Kingspan considers any strategic risk which has the potential to impact revenues by over 5% as substantive. In 2022, for example, that would be any risk that would potentially impact revenue by over €400m.

Reputational: Kingspan is the market leader in high-performance building envelopes, but we also pride ourselves on our best-in-class service model. Any risk which would significantly impact our ability to deliver against this service level expectation would be considered as substantive. In addition, Kingspan has set itself challenging targets in the areas of energy, carbon, circularity and water, through our Planet Passionate initiatives. Any risk which would substantially impact our ability to deliver against those goals would be considered substantive by Kingspan.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Risks and opportunities (R/O) , as they relate to climate change, are managed through a multi-disciplinary, company wide risk management process. The purpose of this approach is to ensure we identify and manage risks and have effective risk reporting, across the organisation and across functionalities; and that this process supports our efforts to meet our strategic business plans.

Processes for identifying risks:
There are multiple strands within the business for identifying R/O as they relate to our value chain stages and there are formal monthly updates for escalating R/O to the Group management team, as well an annual risk review conducted by Internal Audit for the benefit of the Kingspan board's Audit & Compliance Committee.

Identification channels:
Kingspan employees are represented in trade associations and industry bodies; Kingspan attends major industry tradeshows; its employees are in discussions with Government and regulatory officials to ensure the management team remains fully appraised of emerging regulation; our commercial teams liaise with customers, building owners, design teams and architects daily and feed back any potential risks or opportunities from market demand changes or new technologies. R/O, as they relate to climate change, are also identified through our Innovation Team, both through market intelligence and through the monthly formal review with the CEO and bi-monthly innovation reviews with the business divisions. There are several committees within the business that monitor specific risks, for example: the Planet Passionate (PP) Committee, which tries to manage and address Kingspan's own environmental impacts; the Health and Safety Committee (H&S), which deals directly with environmental standards such as ISO; and the circularity committee which monitors changes in demand in relation to circularity and which drives Kingspan's circularity strategy. For upstream risks, we monitor the environmental plans and progress of our key suppliers and have regular formal updates at the highest level, including CEO to CEO dialogue. Our R&D teams also work closely with our suppliers to research and test more sustainable materials.

Escalation and assessment:
Risks and opportunities are escalated through the chain on consultation with next level management, these R/Os are assessed as to whether they are substantive, and further escalated to business unit and divisional reviews where relevant.
Kingspan is split in to ten operational divisions. The senior teams in each division meet monthly with at least two executive directors, including the CEO. These senior teams have representatives including management, finance, operational, technical and commercial directors. Therefore, there is representation from all aspects of the business. At these divisional reviews, R/O that are deemed substantive are brought to the attention of executive directors and are assessed on a divisional basis. This review process is replicated within each division, with each business unit, in advance of the divisional review. Further, Kingspan hosts a full strategic review of the business annually. This review includes all aspects of the business, it covers short-, medium- and long-term strategic decisions which include any climate change risks assessments or opportunities.

Processes for assessing:
Identified risks and opportunities are assessed for substantive financial or strategic impact (greater than our defined threshold level of €42 million on EBITA). The effect of revenue-related risks and opportunities on EBITA are estimated, and cost-related effects are calculated by multiplying specific effects (e.g., cost increase per MWh or per ton of CO2 or raw material) by volume. Within our CDP reporting, we assume that cost increases (direct or indirect) are not offset by product price increases, although historically Kingspan has been able to increase prices to recover cost of goods sold inflation. All financial risks and opportunities above an EBITA impact of €42 million or higher are to be reported as well as any risks which have the potential for significant reputational loss.

Process for deciding to mitigate, transfer, accept or control:

After climate related R/Os have been identified and assessed, they are prioritised according to impact, likelihood and potential influence on net sales. There are different ways to treat risks:
1. Avoid risks with a high likelihood and high impact by stopping specific activities.
2. Reduce risks with a high likelihood but low impact by mitigation measures.
3. Transfer risks with low likelihood but high impact by insurance, outsourcing, etc.
4. Accept risk with low likelihood and low impact, if the cost to mitigate risk is higher than cost to bear the risk.
Kingspan has identified and invested in mitigation strategies where it leads to a more resilient business and a more sustainable product offering for our customers. Where there is low risk but high impact, for example a weather event related outage at one or more of our facilities, we have insured against these risks and put emergency action plans in place. There have been instances where Kingspan has avoided risks, for example, we have decided not to proceed with some M&A opportunities where we felt climate related risks outweighed the opportunities and there were not sufficient mitigation options available to us. Transitional opportunities are supported by investment in innovation, new facilities and complementary technologies.

Transition Risk Case Study:
Situation: Risk of changing customer behaviour to seek out lower embodied carbon building products. This potential risk was deemed to be substantive at a revenue risk of over €1bn plus the risk of loss of reputation as market leader.
Task: Kingspan identified the need to reduce embodied carbon from our upstream raw materials through feedback from our customer base and horizon planning from our Planet Passionate team.
Action: Kingspan has made two public commitments to reduce its Scope 3 emissions:
- Verified Science Based Scope 3 Target: 42% absolute reduction in scope 3 emissions by 2030 from a 2020 baseline
- Planet Passionate target: 50% CO2 intensity reduction in products from primary supply partners by 2030 from a 2020 baseline.
In late 2021, we subscribed to EcoVadis to help with monitoring and tracking supplier's ESG performance, promote transparency, reduce risk, and identify areas for improvement. We have already started to work with suppliers with lower carbon steel. In addition, Kingspan made a small investment in a start-up steel producer, H2 Green Steel (H2GS). H2GS aims to be producing steel by 2025 with c.95% less embodied carbon to comparable steel today.
Result: Kingspan will launch two lower embodied carbon products in 2023, in our Insulated Panel division and in our Data + Flooring division (see C2.3a Risk 1& 2 for more detail).
Timeline: Risk is medium-term, response is short-term

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	CBAM / ETS Kingspan's operations have been impacted by regulation introducing carbon taxes, thereby incentivising us to improve our energy performance. While Kingspan is not included in current emissions trading scheme (e.g. EU ETS I) for its direct operations, it nevertheless pays carbon tax (via fossil fuel consumption) in several countries where it operates (e.g. Ireland, France). Energy costs impact the profitability of our business units, therefore any regulation which might lead to higher energy costs in the future is relevant and always included. Kingspan may be subject to additional future carbon taxes from its supply chain via ETS adjustments and the Carbon Border Adjustment Mechanism (CBAM) legislation. CBAM will enter into force in its transitional phase from October 2023, from 2026 imports of goods from outside of the EU covered by the CBAM will have to buy carbon certificates corresponding to the carbon price that would have been paid had the goods been produced under the EU carbon pricing rules. At the same time, ETS allowances will reduce for European manufacturers covered by the scheme. Example: Management of current carbon taxation risks -Situation: active management of current regulation risks -Task: Kingspan is trading in over 80 countries so we must prepare for the potential impact of a changing cost of carbon in our raw materials. -Action: Kingspan launched its Planet Passionate programme in 2019. A key goal of this programme is to reduce the carbon from our primary raw materials by 2030 (see C2.3a Risk 1& 2 for detail). We have had significant engagement with our key suppliers and have assessed the potential of alterantive suppliers. -Result: Working steadily with our suppliers since the launch of our Planet Passionate programme has led to ongoing collaborative innovation and investment. To date, we have created lower embodied carbon alternatives in our insulated panel and our raised access flooring range – QuadCore LEC and RMG LEC (LEC: lower embodied carbon). These products will launch in 2023. -Timeline: risk is medium term but response is short-term Magnitute of impact is low given mitigation strategies.
Emerging regulation	Relevant, always included	Emerging regulation can have varied and wide-ranging impacts for Kingspan, both in our own operations, and upstream/downstream. For this reason, it is relevant and always included. Situation: An example of an emerging regulation which will impact Kingspan is the development of the EU ETS II, an expansion of the current EU Emissions Trading System (ETS) to incorporate buildings and transport. Task: The "building" aspect of this new regulation will impact Kingspan's own operations and downstream (EU ETS I already largely covers our upstream). The intention of ETS II is to impose a price on emissions from buildings, by 2027, with the expectation that it will be set at €45/tCO2e in the initial phase. For Kingspan's own operations, this regulation has the impact of driving up the cost of energy at our sites. Action: Kingspan has an extensive sustainability programme which aims to increase on site renewable energy generation (target 20% by 2030) and to increase our share of direct renewable energy use (target 60% by 2030), this programme will serve us well in mitigating the risk of an increased cost of operations. For our customers (downstream), this regulation also has the impact of driving up the cost of operating a building. Kingspan's insulation systems and energy efficient building solutions, along with our supplier warranties on thermal performance become an even more compelling solution in helping our customers drive down emissions from the heating and cooling of buildings. Result: Kingspan has increased its direct use of renewable energy from 19.5% to 34.5% since the launch of our Planet Passionate programme in 2020. Our insulation systems sold in 2022 have the capacity to save 173 million tCO2e for building owners, over their lifetime. Timeline: Medium-term, it is expected at this stage that the regulation may not go live until 2028. Magnitude of risk is low given mitigation strategies
Technology	Relevant, sometimes included	Innovation is one of Kingspan's four strategic pillars, technology is therefore relevant. Innovation, by its nature, is not a new risk that is identified on an ongoing basis, it is therefore sometimes included in our risk assessments. Situation: Kingspan's strategy is to be the global leader in innovative building envelope solutions which reduce the resource consumption of buildings, lowering the building's long-term running costs and environmental impact. Failure to innovate ahead of our competitors is a risk to our business model. Task: Substitution risks would be identified through presence at trade shows and industry events; by our dedicated Innovation team; and through our commercial teams from customer interaction. Kingspan's Head of Innovation is responsible for the company's research and development functions. Action: Extensive research is underway with the aim of continually improving the energy and carbon saving performance of the existing product range whilst also developing new innovative solutions. Kingspan established the IKON in 2019, our new global innovation centre. IKON, with its state-of-the-art chemistry lab and prototyping capabilities, is itself a living research project. Kingspan invests broadly 1% of revenue annually (€60.3m in 2022 on R&D) on R&D and digital transformation, we are the only global insulated panel and insulation board manufacturer which gives us significant scale advantage in the innovation of carbon reducing technologies versus competitors. The Head of Innovation formally updates the CEO at least monthly on technology updates, including risks and opportunities. There is a bi-monthly Innovation review which includes the CEO and the Managing Directors. Results: One of Kingspan's key strategic pillars is to lead the innovation of new technologies which support the transition to a lower-carbon economy. There is a risk that our existing product set is substituted by competitor's products should Kingspan not retain this innovation leadership position. One example of how we have managed this risk to date would be the development of QuadCore, which outperforms the U-value (thermal efficiency) of PUR core insulated panels by almost 20%. In 2022, QuadCore accounted for 17% of Kingspan's insulated panel volume with a targeted revenue of 50% of insulated panel revenue within the next four years. Timeline: Medium-term Magnitude of risk is Medium to low given mitigation strategies

	Relevance & inclusion	Please explain
Legal	Relevant, always included	Kingspan is required to comply with national and international environmental laws and frameworks. If we do not comply with these laws, we could become subject to regulatory actions including monetary damages, fines, penalties or reputational damage. Therefore legal risk relevant and always included. Situation: As global operations must meet environmental compliance and are audited regularly by industry bodies such as the EPA. Any failure to pass audits or climate related litigation claims could result in fines and could damage Kingspan's reputation as a leader on the climate change agenda. Task: Identify legal risks at site level. Action: 'Climate change' risks and 'Laws and regulations' risks are both included in our enterprise risk management process and reported to the Group Audit and Compliance Committee through internal audit. Risks would be identified through local facilities management and escalated through the Planet Passionate and Health and Safety committees, divisional management and Kingspan Group's centralised legal team where necessary. Significant risks or opportunities of this nature would be assessed and escalated to divisional reviews where necessary. Divisional reviews are conducted monthly with at least two executive directors, including the CEO, and a multi-disciplinary senior team including commercial, operations, finance and general management. Significant risks or opportunities are updated monthly. Risks are mitigated by adopting globally recognised standards. Many of our sites have their environmental compliance monitored in line with standards such as ISO 14001 and ISO 50001. Result: 83 of Kingspan sites are certified to ISO 14001 and 37 sites to ISO 50001. These best practices are shared through the Health and Safety Committee and the Planet Passionate Committee. We are also in the process (Q1/Q2 2023) of conducting a significant materiality assessment, to further focus our efforts on the most material risks for the business. We will update on the outcome and actions taken as a result of this assessment in next year's report. Timeline is short-term, Magnitude of risk is low given mitigation strategies.
Market	Relevant, always included	Growing demand for low carbon building materials is expected as countries look to construct new low carbon assets and retrofit existing buildings. Understanding any significant changes to customer behaviour is critical to Kingspan's success and therefore is relevant and always included. Insulation materials will play a key role in helping to reduce operational and embodied carbon in buildings. We market our product's impact on resource efficiency, particularly in relation to in use energy and carbon saving benefits. The embodied carbon of our insulation is fractional compared to the impact of carbon saved in use. However, we recognise the need to minimise the carbon used to manufacture our products, much of which comes from the raw material stage. To be a market leader in carbon efficient solutions, we aim to realise significant carbon reductions in our processes and via our primary raw material supply partners. Failure to address this risk could negatively impact the future demand for our products. EXAMPLE: Management of product embodied carbon risk - Situation: Demand for low carbon building products - Task: To assess this risk, Kingspan undertook a value chain emissions assessment as part of the development of its science-based targets - Action: Kingspan has made two public commitments to reduce scope 3 GHG emissions (see C2.3a Risk1&2 for detail). Any sustained change in trend in customer behaviour would be notified to local commercial directors who would assess the potential impact and escalate to unit managing directors where appropriate. This would further be notified to divisional management for discussion at Divisional Reviews. Divisional Reviews are conducted monthly with at least two executive directors, including the CEO, and a multi-disciplinary senior team including commercial, operations, finance and general management. Significant risks or opportunities are updated monthly. We manage this risk through continuous engagement with our suppliers and via our innovation team's material science research. - Result: To achieve these targets, Kingspan actively engages and collaborates with key suppliers on an ongoing basis. Its work to date has resulted in the development and launch of two new lower embodied carbon products in 2023. These products will form part of a lower embodied carbon (LEC) product range that Kingspan will continue to expand as it makes progress towards its targets. - Timeline: risk is medium, response is short – medium term
Reputation	Relevant, always included	Kingspan has accumulated significant brand value over time. The Kingspan brand is associated with high quality, innovative, building envelope solutions which help design teams, building owners and architects design buildings which consume less energy and contribute toward the climate change agenda. Anything which detracts from that association is a reputational risk for Kingspan and may impact customer demand over the short- to long-term. Kingspan is seen as a premium brand and many of its products are warrantied for thermal performance, therefore reputation is a key facet to customer conversion and therefore reputation is relevant and always included. EXAMPLE: Management of product in-use performance risk - Situation: Product performance failure as it relates to thermal performance and therefore energy efficiency. - Task: management and process to manage product in-use performance risk - Action: To identify risks around product failure-in-use, Kingspan has regular contact with our customers, we follow up on all large projects and we have also introduced the Net Promoter Score (NPS) metric to measure our customer experience. We have also introduced a Group led product audit and compliance team which reports directly to the CEO and the Board of Kignspan plc. This team carries out site audits across our state and has introduced the the roll-out of ISO37301, the leading standard in Compliance Management Systems, and ISO9001, the leading standard in Quality Management Systems. - Result: We currently have 26 sites certified to ISO 37301 with aim of 58 certified by the end of 2023 - Timeline: short-term To further enhance our reputation, In December 2019 Kingspan announced the next phase of our internal commitment to tackling climate change, our Planet Passionate Commitments. 11 hard targets aimed at driving energy and carbon out of our business operations and supply chain, as well as increasing our recycling of rainwater and waste, while also accelerating our participation in the circular economy. To ensure all communications related to our progress on reducing our environmental impact, Kingspan is implementing procedures and processes in place to ensure environmental claims made are in line with relevant country and regional legislation and guidance. We see the risk as medium-low given the mitigation measures put in place.
Acute physical	Relevant, sometimes included	Acute physical risks are relevant and sometimes included, when a specific acute event occurs or is anticipated. Situation: Kingspan recognises the potential negative impacts represented by increased risk of flooding due to climate change. Its facilities are globally spread but consideration is given to potential acute physical events at local level. Task: Kingspan assesses its exposure to acute physical climate related risks (such as increased flooding) through regular audits and self-assessment questionnaires, updated on an annual basis by the health and safety and operations teams. Action: Kingspan's Insulated Panels site in Holywell, UK, is situated on the estuary of the River Dee. Storm or flood risk could impact operations at the site. The risk was identified by site managers and through consultation with local council. On further appraisal between the operations team and management it was decided to mitigate the risk through careful planning. Result: Local site management has introduced several flood mitigation factors, senior divisional management will coordinate an effort to transfer supplies or customer orders between sites should an event occur. Emergency planning procedures are set and reviewed annually. Changes to site level risk are under ongoing review. In addition, Kingspan has increased insurance on the site, and has developed regular training and maintenance reviews which include flood risk. There has not been a recent event. Timeline: Medium-term We see the risk as low impact given the mitigation measures in place to date and the diversification of our manufacturing base. However we are doing further assessments to get a more nuanced understanding of this risk.
Chronic physical	Relevant, sometimes included	Kingspan recognises the potential negative impacts represented by increased risk of water scarcity due to climate change. Its facilities are globally spread but consideration is given to potential chronic physical developments at a regional level. Given chronic physical impacts from climate change are longer-term risks and generally seasonal, they are relevant and sometimes included in risk assessments. It is likely we will update our assessment of these risks on a period basis. Example of Chronic Physical Risk Situation: The risk of ability to produce product given scarcity of water due to drought or other climate impacts Task: Understand the facilities that are at risk of water scarcity due to their location and their use of water as a critical input to the manufacturing process. Action: Map Kingspan's manufacturing sites through a location water risk assessment and overlay this risk assessment with the manufacturing sites which use water as a critical input. Develop mitigation plans for water risk at these sites. Result: Kingspan has, through its Planet Passionate programme, set a target to harvest 100m litres of rainwater across our estate by 2030. This will help relieve some of the water risk but we are looking to further our understanding of this risk and how we can we can reduce some of our dependencies. At this time we have identified 20 sites at risk or 29 sites in a stressed environment (c.10-15%). Timeline: This risk is long-term but we will look to put mitigation plans in place in the short- to medium-term. We see the magnitude of impact from this risk as low in the short-term.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Risk 1

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Kingspan's product portfolio consists of products which make a positive impact on resource efficiency, particularly in relation to in-use energy and carbon saving benefits. The embodied carbon of our insulation products is insignificant relative to the impact of carbon saved through our products' lifetime in use. For example, we estimate that Kingspan insulation products sold in 2022, will save 771 million MWh of energy and 173 million tCO2e over their lifetime, which compares to 7.7 million tCO2e of Scope 1, 2 and 3 emissions emitted due to their manufacture. However, we recognise the need to minimise the carbon produced due to the manufacture our products, much of which comes from the raw materials. To be a market leader in carbon efficient solutions, we have targets to realise significant carbon reductions in both our manufacturing process and via our primary raw material supply partners.

Kingspan has made two public commitments to reduce scope 3 GHG emissions:

- Verified Science Based Scope 3 Target: 42% absolute reduction from purchased goods and services, use of sold products and end-of-life treatment of sold products by 2030 from a 2020 baseline. This target is in-line with a 1.5oC trajectory and was set in June 2021.
- Planet Passionate target: 50% CO2 intensity reduction in products from primary supply partners by 2030 from a 2019 baseline. Failure to engage with our suppliers and actively work towards reducing upstream carbon emissions could negatively impact customer preferences.

We estimate the financial risk, in the event of shift in consumer preferences, to be in the region of €0-1,245m of revenue.
We see this risk as having a Medium-low impact for Kingspan given the decarbonisation commitments across our value chain. We believe the level of interest in lower embodied carbon products will grow in the short-term. While Kingspan's targets are medium-term (2030), we expect to have made strong progress towards them in the short-term.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
1245000000

Explanation of financial impact figure
Kingspan's business strategy is built around the importance of addressing climate change through the built environment. While our insulation systems enable significant energy and carbon savings in the operation of buildings, Kingspan recognises the importance of working with critical suppliers on emissions reduction activities to reduce the embodied carbon of our products. We believe it is imperative that the company continues to demonstrate leadership on the climate change agenda.

CALCULATION OF POTENTIAL FINANCIAL IMPACT: Growing demand for low embodied carbon building materials is expected as countries look to construct new low carbon assets and retrofit existing buildings. Insulation materials will play a key role in helping to reduce operational and embodied carbon. Failure to reduce upstream carbon emissions could negatively impact customer preferences.

Over 80% of Kingspan's revenue is derived from energy efficient products.
We have applied scenario analysis and using SSP's to conduct a qualitative risk assessment of our business model. Due to the lack of quantitative data on future demand of insulation products, based on that analysis we assess that our business model and strategy is resilient for all SSPS including worst case scenario of SSP3 (as insulating buildings will be mandated in all scenarios) which entails lower demand of sustainable products, based on that analysis for SSP1 which is best pathway we assume that demand for sustainable products will be even higher and for that SSP there is higher risk for us if we can not meet that demand.
Assuming Kingspan's customers who are interested in energy efficient products are more likely to seek out lower embodied carbon products, this segment of our revenue could be impacted by 0-15%, 0% is based on SSP 3 ("rocky way") which assumes consumer do not care about lower embodied carbon products and 15% is based on SSP1 ("sustainability pathway") which assumes that consumers are actively seeking our lower carbon product in line with most advanced markets. The 15% is aligned with markets where we see the strictest building codes.
The revenue impact could therefore be negative c.€0-1.245 million. This estimate is highly speculative.

We are managing this risk through the achievement of our scope 3 GHG emission targets via continual engagement with our primary supply partners and our innovation agenda.

Cost of response to risk

18500000

Description of response and explanation of cost calculation
Kingspan has made 2 public commitments to reduce scope 3 GHG emissions, for more details see above. Supplier engagement is generally prioritised on size of expenditure with focus on key raw material suppliers. Procurement & sustainability teams work closely with our key suppliers on decarbonisation strategy & product development.
ACTIONS TO MIGITATE: An example of Kingspan's intent to make meaningful progress towards this goal is its active engagement with suppliers on an ongoing basis to obtain data & project updates. Kingspan tracks supplier's carbon emissions performance annually to map progression against its targets. Engagement to date has included site visits, meetings, conference calls, electronic communications between procurement & sustainability functions and testing/development of alternative materials. Kingspan's IKON Innovation centre supports our efforts to decarbonise our supply chain by researching & testing lower carbon alternative materials from suppliers.
Case Study: Development of QuadCore LEC insulated panel
- SITUATION: Engaging & collaborating with key suppliers to develop a lower embodied carbon variant of an existing product.
- TASK: Through 2021and 2022 we engaged with several new & existing steel suppliers to find a lower embodied carbon steel source.
- ACTION: From our extensive engagement with suppliers, we identified a lower embodied carbon steel supply source. We tested the proposed steel product to ensure it met the technical performance specification & worked collaboratively with our supplier to develop a market ready lower embodied carbon panel.
- RESULT: In Q2 2023 we launched a QuadCore lower embodied carbon (LEC) insulated panel into the UK & Irish markets. The LEC insulated panel has 21% less embodied carbon across lifecycle stages A -C.
- TIMELINE: the risk is medium – long, response is short term
CALCULATION OF COST OF MANAGEMENT: Total cost of management: c. €18,500,000. The cost of management is estimated as – c.€1,000,000 based on the cost of internal & external resources required to monitor & implement initiatives to achieve targets. This includes internal meetings, research, engagements & testing with external stakeholders; plus - a portion of the ongoing investment in R&D, which was €60.3m in 2022; plus - the capitalised expense of the investment in the IKON & our Fire Centre (c.€10m total investment, capitalised at €2.5m/annum).
The same approach is being taken to mitigate against both Risk 1 & Risk 2.

Comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
As a global leader in high-performance insulation and building envelope solutions, we rely on a global network of suppliers, from raw material to the transportation companies that deliver our products to our customers. Any carbon related policy changes affecting our suppliers could affect our cost of production if the suppliers pass through a percentage of the (increased) carbon price to Kingspan. Purchased good and services account for 82% of our total value chain GHG emissions footprint, with the largest proportion attributable to the metals materials category. To address scope 3 emissions, we have set two ambitious targets:
- 50% reduction in product CO2e intensity reduction from primary supply partners by 2030
- 42% reduction in scope 3 GHG emissions by 2030 from 2020 baseline (verified science-based target)

Our approach to date has been to actively engage with our suppliers on this issue to better understand their strategies, challenges, and potential areas of collaboration. Kingspan's IKON Innovation centre also supports our efforts to decarbonise our supply chain by researching and testing lower carbon alternative materials from existing and new suppliers. From 2026, metals sourced from outside of the EU may be subject to additional carbon taxes via the Carbon Border Adjustment Mechanism (CBAM) legislation. During the CBAM phase in period, free EU ETS allocation for sectors included in the CBAM will be completely phased out over a 9-year period.

We see this risk as having a Medium-low impact for Kingspan given the diversity of our supplier network, our strategic commitment and focus on our supply chain decarbonisation via our Planet Passionate programme and our scale of innovation in comparison with our peers.
We estimate the financial impact of this risk to be in the region of €0-1.25bn. We see this risk as having a Medium-low impact for Kingspan given the decarbonisation commitments across our value chain.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
1250000000

Explanation of financial impact figure
If our key suppliers fail to decarbonise in line with the latest climate science there's a risk they will pass through their increased cost to their customers – including Kingspan. Their ability to decarbonise is highly dependent on how easily the supplier can substitute its raw materials and/or manufacturing processes with lower-carbon alternatives.
Calculation of potential financial impact:

Any calculation of financial impact is heavily reliant on assumptions, e.g. cost of carbon, rate of decarbonisation and degree of pass through. However, to give some idea of potential quantum, we look at the potential impact of the changing EU ETS on the cost of steel. We make the following assumptions:
• a carbon tax of €95-303 per tonne of CO2etwo combinations of SSPs and RCPs: 1. SSP1 - 1.9 and 2. SSP2 - 1.9
• the expectation that free carbon allowances for steel will fall by 50% by 2030 (i.e. free allowances today based on 1.5tCO2e/1tonne steel falling to 0.75tCO2e/1 tonne steel)
• An average cost of steel of €900/tonne
• 2 tCO2e/1 tonne of steel on average
Calculation:
Cost increase per tonne of steel based on falling ETS free allowances, over a range of carbon prices based on scenario analysis.
Minimum: Carbon cost per tonne of steel = 0.75 (i.e., 1.5tCO2e – 50%) * €95 = €71.25 increase; implies c.8% increase based on €900/tonne steel price
Maximum: Carbon cost per tonne of steel = 0.75 (i.e., 1.5tCO2e – 50%) * €303 = €227.25/tonne increase = c.25% increase based on €900/tonne steel price
We don't break out our total steel costs for reasons of commercial sensitivity, but it is the single largest cost in Kingspan and therefore the cost of carbon in steel manufacturing could have a significant impact to our cost of production. It is difficult to make assumptions about how much of this will be passed on to Kingspan or other customers, but historically Kingspan has been very successful passing on price increases as evidenced during 2017/18 and 2021/22 inflation periods. Therefore, we see the impact to Kingspan as low but the risk to end markets is clearly inflationary.
Taking all of the above into account, we estimate the potential impact to Kingspan of €0-125m in operating profitability annually. (This risk is ranked #2 as this is a profitability impact, some risks are given as revenue impact, at today's trading margins this would be the equivalent of a loss of revenue of €1.25bn).

Cost of response to risk
18500000

Description of response and explanation of cost calculation
Our response is structured around two areas: active engagement with key suppliers & a focus on increasing our adaptive capacity. We define adaptive capacity as the ability to source lower-carbon raw material options to take the place of existing carbon-intensive ones to help progress towards our targets. In 2022, we bolstered our working relationships with our existing key suppliers & identified several new lower carbon supply options. Our activities included cross functional team meetings & site visits. Our sustainability & procurement teams worked with our key raw material suppliers during the year, which has resulted in several collaborative projects. The team is supported in these discussions by the CEO ad hoc. We also further refined our data collection methodology. IKON Innovation centre supports our decarbonisation efforts by researching and testing lower carbon alternative materials from suppliers.
CASE STUDY: Supply chain investment
SITUTATION: engaging with suppliers to reduce the embodied carbon of key raw material categories
TASK: Kingspan explored multiple alternative lower embodied carbon materials & supplier options in 2020 & 2021 as part of its supplier decarbonisation trajectory development.
ACTION: Discussion with key suppliers, data collection, material testing & research at our IKON Innovation centre
RESULT: A key outcome was a small investment in a start-up steel producer, H2 Green Steel (H2GS) in early 2021. H2GS aims to reduce the carbon impact of the steel production process by 95% when it begins to produce steel in 2026. In 2022 Kingspan increased its shareholding in H2GS with a further investment and are committing to a future supply relationship.
TIMELINE: the risk is medium term risk, the response is short term
Explanation of cost calc.: Total cost of management: c. €18,500,000 The cost of management is estimated as – c.€1,000,000 based on the cost of internal & external resources required to monitor & implement initiatives to achieve targets. This includes meetings, research & engagements with external stakeholders; plus - a portion of the ongoing investment in R&D, which was €60.3m in 2022; the capitalised expense of the investment in the IKON & our Fire Centre c.€10m total investment, capitalised at €2.5m/annum). The investments in H2GS are not disclosed, but we are a minority equity investor in the business with a single digit % investment.
The same approach is being taken to mitigate against both Risk 1 & Risk 2.

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver

Technology	Substitution of existing products and services with lower emissions options

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Kingspan's strategy is to be the global leader in innovative building envelope solutions which reduce the resource consumption of buildings, lowering the long-term running costs and the environmental impacts of those buildings. Innovation is a key facet to our strategy and Kingspan has market leading products, particularly in the field of building insulation. Kingspan's high performance insulation solutions help architects and building owners design buildings that consume less energy for the long-term. Failure to innovate ahead of our competitors is a risk to our business model. We invest approximately one per cent of revenue annually in research and development and digital transformation, which gives us significant scale in innovation versus our peers. Should a competitor bring a higher performing insulation technology – in terms of thermal performance – to market, it could impact revenue in that product range. Kingspan's energy efficient insulation products and ancillaries account for over 80% of revenue. A company specific example: QuadCore® is Kingspan's most innovative, highest performing insulated panel product with a U-value of 0.018W/mK. QuadCore® was brought to the market by Kingspan in 2015. Since then, we have been rolling out capacity globally and it has been taking share from traditional insulation as well as PIR core insulated panels. In 2022, QuadCore® revenue grew 46% and accounted for c.17% of our insulated panel volume. Should a competitor innovate an insulated panel product with substantially superior energy and carbon saving performance to QuadCore®, it could take share from QuadCore® and PIR core insulated panels. We estimate the financial risk, in the event of significant product substitution, to be in the region of €148-875m of revenue.
We consider the 'Magnitude of Impact' Medium-Low given our considerable response to the risk and we see this risk as being over the medium-term.

Time horizon
Medium-term

Likelihood
Unlikely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
148000000

Potential financial impact figure – maximum (currency)
875000000

Explanation of financial impact figure
If Kingspan does not continue to develop industry leading high performance, low carbon insulation technologies there is a risk that our existing products are substituted by a competitor's products. CALCULATION OF POTENTIAL FINANCIAL IMPACT: Assuming a competitor can innovate a product with substantially superior thermal performance to QuadCore® it could take share from QuadCore®. Kingspan is the only Global manufacturer of high-performance insulation, so in a baseline scenario we are only likely to lose share to a local competitor in a local market. In a 1.5o C degree scenario, where there would be a step-up in expected demand for high-performance insulation technologies, there could be a global rollout of a competitive product and we could lose share globally. We would not expect this share loss to be permanent as Kingspan is already working on its next generation of QuadCore®, as well as an integrated insulated panel and solar solution.
We make the following assumptions: - 16% share loss in our largest division (in line with the share gains realised by QuadCore®) - Insulated panels - 65% of revenue – at minimum takes 16% share in only one market, assume 16% (largest single market), at maximum assume takes share globally (unlikely).
Minimum: €8.3billion (Group revenue 2022) * 62% (Insulated Panel rev) * 16% (largest geographic market) * 17% (share loss) = €148m
Maximum: €8.3billion (Group revenue 2022) * 62% * 100% (all markets) * (Insulated Panel Rev) * 17% (share loss) = €875m

Cost of response to risk
62800000

Description of response and explanation of cost calculation
Kingspan sees innovation as one of our four strategic pillars and therefore it is a key priority to maintain our leadership position on product performance.
Kingspan conducts a full strategic review of its product portfolio annually, to assess the performance of our current portfolio and to identify product gaps. On an ongoing basis, technology opportunities are identified through attendance at tradeshows and industry events, liaising with universities and industry experts and talking to our customers.

Case study: Innovation
Situation: Kingspan seeks to maintain its leadership position in high-performance building materials.
Task: Invest and sustain leadership position through ongoing innovation.
Action: Kingspan established IKON in 2019. IKON is Kingspan's new global innovation centre located in Ireland. IKON contains state-of-the art laboratories and prototyping capabilities. It will bridge business divisions and regions and continue to drive Kingspan's position as leader in sustainable and energy efficient building solutions. Kingspan invests approximately 1% of revenue annually in research and development and digital transformation. In 2022 the investment in R&D was €60.3m, in addition to over €10 million of capital expenditure on IKON and our new fire research facility in 2019. We view this as a fundamental investment to retain Kingspan's leadership position.

Result: Kingspan's continuing investment in research and development involves over 40 key projects. An example of a result from this process is QuadCore Lower Embodied Carbon. Quadcore is Kingspan's most innovative, highest performing insulated panel product with a U-value of 0.018W/mK. QuadCore was brought to the market by Kingspan in 2015, since then we have been rolling out capacity and it has been taking share from traditional insulation as well as PIR core insulated panels. In 2022 Quadcore accounted for c.17% of our global insulated panel volume. Kingspan has continued to develop QuadCore and, working with our supplier on lower carbon raw materials, we launched a lower embodied carbon version of QuadCore, with over 20% less embodied carbon. This is just one example of how we drive sustainable change within our products.

Timeline: Risk is medium-term, response to risk is in the short-term

We calculate the cost of management of the risk as our annual investment in R&D plus the capitalized expense of the investment in our research facilities: €60.3m + €2.5m = €62.8m.

Comment

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Water scarcity

Primary potential financial impact
Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Kingspan manufactures and sells a plethora of products and as a result its operations across the globe are diverse. This diverse nature can also be seen in our facilities use of water. The importance of water quantity for our operations varies from vital for some of our sites (meaning that production could be compromised, and output and finances affected at the divisional level, if the water supply was insufficient) to not important at all (i.e., water is not a key component of operations directly or indirectly and water quantities are of less concern).
In addition, robust water management practices are important for brand reputation with customers and the general public. Water issues may help to maintain a social license to operate in regions of increasing water stress.
As a first step in our analysis, we assessed which of our 212 manufacturing, R&D and assembly sites operate in areas of high water stress. We also performed an extensive internal analysis of water consumption, withdrawal and disposal practices across our global operations. As a result, we managed to identify sites of potentially high impact.

Current situation: The results showed that 27% of our sites are located in regions with High or Extremely High Baseline Water Stress. For 25 out of those, water is of very high or vital importance since it is used for product manufacturing and 20 of those sites withdraw material amounts of water.

2040 risk assessment: We then conducted a scenario analysis to understand how this risk will evolve over the medium and long term. Examining the pessimistic scenario (i.e. ssp3 rcp85), the percentage of sites increases to 28%, and the number of sites that depend on water for their products increases to 29.

We estimate the potential impact of chronic physical risk as it relates to water as €110-250m. This estimate relies on assumptions.

We consider the magnitude of impact as low given our response to date and the potential to make further inroads over the coming years.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
110000000

Potential financial impact figure – maximum (currency)
250000000

Explanation of financial impact figure
As described, Kingspan assessed the sites which we deemed to be at risk of water stress, looking at it through a lens of geographical water stress and the impact of water on production. Through this assessment we identified up to 29 sites at risk in a stressed environment, based on scenario analysis.

The financial impact is estimated before consideration of actions to mitigate risks. We make the following assumptions:
At minimum, 20 sites are at risk, only 1 region (e.g. EU/US) is at risk at any given time, and revenue is only impacted for one quarter of the year given weather seasonality. We assume all revenue is lost which is a very conservative assumption given our mitigation measures.

At maximum, 29 sites are at risk (using stressed scenario), we assume 2 regions are impacted at any given time, and again we assume for only one quarter of the year.

We don't give detailed disclosure on sites or revenue per site as this is commercially sensitive.

Financial impact range - €110-250m.

Cost of response to risk
2000000

Description of response and explanation of cost calculation
Kingspan sites use water for various purposes, ranging from use in products to just sanitary use. Several of our sites are located in areas of high-water risk, which might pose an operation risk to the former and compromise the social license to operate for those sites if not managed properly. That's one of the key reasons we set a rainwater harvesting target as part of our 2030 Planet Passionate programme. We aim to harvest 100 million litres of rainwater per annum by 2030, having harvested 26.3 ML in 2022. Moving towards the end of the decade and taking into account the results of the scenario analysis of water stress, we will start to shift our focus to sites located in high water stress areas and sites for which water is a key input. In addition, we will explore additional ways to reduce our water risks, increase our resilience of our business model and reduce our dependency on water in water-stressed areas.

Case study: Rainwater Harvesting project

• Situation: Our manufacturing site in Gemert, Netherlands, is located in a high-water stress area according to area according to Aqueduct, WRI's water risk atlas tool. Water availability is an important issue for the site, as water is used for product manufacturing.
• Task: Reduce water impacts on local reserves and ecosystems from the manufacturing process.
• Action: As a first step to mitigate our impacts, the site is equipped with a rainwater harvesting tank. The capacity of this under-building structural concrete reservoir is 16,000 m3.
• Result: All of the harvested rainwater is used in the manufacturing process. In 2022, almost 50% of the site's water needs were covered by the rainwater that was harvested during the year.
• Timeline: Project was part of the original building design.

Total cost of management calculation: we don't yet have a reliable estimate on the total cost of management. We have recently identified sites that are at risk over the long-term of water scarcity and we are currently assessing means of reducing this risk. Rainwater harvesting will not always be the best or a viable solution. In the interim we are targeting total rainwater harvesting for the group of 100m litres pa and this is a core target within our Planet Passionate strategy. We estimate the annual capital cost and the management cost of achieving this target to be in the region of €1-2m annually out to 2030.

Comment

Identifier
Risk 5

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Emerging regulation can have varied and wide-ranging impacts for Kingspan, both in our own operations, and upstream/downstream. An example of an emerging regulation which will impact Kingspan is the development of the EU ETS II, an expansion of the current EU Emissions Trading System (ETS) to incorporate buildings and transport. The "building" aspect of this new regulation will impact Kingspan's own operations and downstream (EU ETS I already largely covers our upstream). The intention of ETS II is to impose a price on emissions from buildings, by 2027, with the expectation that it will be set at €45/tCO2e in the initial phase. For Kingspan's own operations, this regulation has the impact of driving up the indirect cost of energy at our European sites. Kingspan is an industry leader in manufacturing products which help to mitigate climate risk in the construction sector. We take this leadership position very seriously and have set ourselves industry leading targets with respect to our own carbon emissions. Kingspan already has an extensive sustainability programme which aims to increase on-site renewable energy generation (target 20% by 2030) and to increase our share of direct renewable energy use (target 60% by 2030), this programme will serve us well in mitigating the risk of an increased cost of operations. For our customers (downstream), this regulation also has the impact of driving up the cost of operating a building. Kingspan's insulation systems and energy efficient building solutions, along with our supplier warranties on thermal performance become an even more compelling solution in helping our customers drive down emissions from the heating and cooling of buildings.
We estimate the financial impact of the EU ETS II to be in the range of €1.3m to €65m, over a medium-term horizon.
We see the risk as having a low impact to Kingspan given the considerable mitigation efforts we have in place to reduce carbon emissions from our operations.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
1300000

Potential financial impact figure – maximum (currency)
65000000

Explanation of financial impact figure
If Kingspan does not deliver on its Planet Passionate (sustainability) objectives, to reduce the use of fossil fuel energy at our sites, we will be more exposed to the impact of the introduction of the EU's planned buildings emissions charge.
CALCULATION OF POTENTIAL FINANCIAL IMPACT:
We make the following assumptions:
At the minimum end of the range – we assume we meet our target of reducing carbon emissions by 10% per annum until 2030, and the ETS is set at the EU's initial amount of €45/tCO2e, and only applied to EU sites. At the maximum end of the range, we assume no change to carbon emissions from today, use SSP1 as our pathway and 1.9 as the mitigation target, which gave us an upper end of the range of €303/tCO2e, and apply to our global sites.
Minimum: 83k tCO2e (total EU S1&2 emissions, +10%pa for growth, -10% pa for mitigation strategies) = 83k tCO2e * €45/tCO2e = €1.3m
Maximum: 215k tCO2e (total EU emissions, 83k, +10%pa for growth) = 215k tCO2e * €303/tCO2e = €65m

Cost of response to risk
7000000

Description of response and explanation of cost calculation
Kingspan has an extensive sustainability programme, Planet Passionate, which we launched in 2019. While also establishing our leadership position in energy efficiency, this will also help to mitigate against the impacts of carbon taxes/charges introduced by the EU or globally.

Case Study: Operational carbon reduction
Situation: Kingspan currently operates 131 sites within the EU. The EU expects to impose an Emissions Trading System (ETS) on emissions from buildings by 2027/28 which will impact the cost of energy and emissions from our European sites.
Task: Kingspan must aim to meet its ambitious sustainability objectives in order to reduce the risk of rising costs related to the EU ETS. For example, our objectives to have 20% of our energy from on-site renewable energy by 2030, for 60% of our energy to come from direct renewable by 2030 and to achieve net zero carbon manufacturing by 2030 (these targets relate to the 2020 underlying business).
Action: We have targets to install roof-top solar PV on all of our wholly-owned manufacturing facilities by 2030. We installed 18 new roof-top solar PV projects in 2022 which will have the capacity to generate 6.4 GWh of energy annually. We also introduced a €70/tCO2e carbon charge for Scope 1&2 emissions across the business to drive investment towards renewable and low carbon alternatives.
Result: By end 2022, 35.2% of our sites had roof-top solar, and contributed toward the 59k GWh of renewable energy generated on site, 7.1% of total energy use. We will have more to report on the impact of the carbon charge in time as the first year of the charge is 2023.
Timeline: The risk is over the medium-term but the response to the risk is over the short-term.

Cost of management of risk calculation: We estimate the cost of management annually to be approximately €7m.
- In early 2020, we announced that we arranged a bilateral "Green Loan" of €50 million to fund our Planet Passionate Initiatives over the programme, over 10 years (~€5m annual investment)
- €2m in time commitment and the budget for integrated systems for managing progress against our targets.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Use of public-sector incentives

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
There has been a quantum leap in energy efficiency & renewable energy requirements from new buildings in Europe as its leaders seek to address the impact of EU buildings on climate change.
In October 2020, the EU adopted the strategic communication on the Renovation Wave which contains an action plan aiming to at least double the annual energy renovation rate of buildings by 2030 & to foster deep renovations. Only 3% of buildings in Europe were classed as highly energy efficient by a BPIE study (2017) indicating the extensive level of renovation that will be required across Europe. Aligned with the ambition of the Renovation Wave initiative, a revision of the Energy Performance of Buildings Directive (EPBD) is currently underway which will review specific aspects such as the phased introduction of mandatory minimum energy performance standards for all types of buildings (public & private), an update of the framework for Energy Performance Certificates, the introduction of Building Renovation Passports and the introduction of a 'deep renovation' standard in the context of financing & building decarbonisation objectives. A key facet within the renovation wave is to improve the energy efficiency of the building envelope. In the US, the 2022 Inflation Reduction Act includes $369 billion of funding programs & incentives to accelerate the transition to a clean energy economy and tackle climate change. Supports include $9 billion for home energy rebate programs for energy efficient retrofits and $1 billion grant program to make affordable housing more energy efficient.
Kingspan's ultra-performance insulation products are ideally suited for renovation given that dimension can be a key constraint in refurbishment. We have published several reports on how investment in premium insulation an immediate & significant return can have when dimension is considered. Kingspan's advanced insulation offers significant thermal outperformance versus fibre type insulation materials, thereby offering an enhanced dimension solution for the refurbishment market. For example, Kingspan's Optim-R insulation board can obtain the same thermal performance for almost one quarter of the thickness of fibre type insulation. We estimate the potential impact as high for Kingspan given our product range and geographic exposure (€860-1,700 million). While this opportunity should start to impact in the short-term (out to 2025), it will support renovation revenue over the long-term, out to 2050.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
860000000

Potential financial impact figure – maximum (currency)
1700000000

Explanation of financial impact figure
While it is widely acknowledged that the energy efficiency of the building stock (i.e. buildings which have already been constructed) must be addressed to meet the objective of the Paris Accord for its long-term temperature goal to hold global average temperature increase to "well below 2oC above preindustrial levels", it is not certain how this will be financed. The EU has made a clear commitment to finance green renovation projects but the national mechanisms by which this finance will be committed remains unclear. The new US administration has also made its intentions clear on addressing energy inefficiency in the building stock.

Assuming the rate of renovation will increase to double the current rate (2% instead of 1%), in line with the objective of the Paris Accord to pursue efforts to limit the temperature increase above pre-industrial levels to 1.5oC, this could add up to €1,400m of additional revenue annually for Kingspan. At minimum we assume renovation targets are missed by 50%, at maximum we assume renovation targets are achieved. We only include the EU, US and Britain exposure at this time, reflecting the progressive approach in these regions.

Minimum Calculation (assumes 50% of target renovation rate achieved, i.e. 50% of a doubling of the renovation rate): • 2022 Revenue * group renovation exposure * approx. EU + US exposure * probability = €8,300m * 23% * 90% * 50% = €860m
Maximum Calculation • 2022 Revenue * group renovation exposure * approx. EU + US exposure * probability (assumes 100% of target renovation rate achieved, i.e. a doubling of renovation rate):= €8,300m * 23% * 90% * 100% = €1,700m

Cost to realize opportunity
200000000

Strategy to realize opportunity and explanation of cost calculation
Through our development teams & marketing initiatives, Kingspan aims to helps the market to see the benefits of high-performance insulation as they relate to renovation. Education is a core part of our strategy to convert the market to high-performance insulation. The education strategy involves presenting at trade shows, industry events and development of white papers on EU building stock renovation needs. We are working on pilot projects with regulatory bodies, to demonstrate the performance benefits of our products and how they can contribute to an efficient solution. We are also members of industry alliances that enable us to engage with policy makers, NGOs and thought leaders.

Case study: Enabling retrofit programmes in the Irish market
Situation: use of public sector incentives: helping to enable building renovation projects in Ireland. The Sustainable Energy Authority of Ireland (SEAI) estimates that over €35 billion will be required to make the existing housing stock low carbon by 2050.
Task: to realise the renovation opportunity in Ireland by providing services, products & education to help enable building renovation.
Action: Kingspan Retrofit is an approved SEAI counterparty, which has a nationwide network of contractors carrying out energy efficiency upgrades to existing homes, technical support & guidance on available grants in Ireland for energy efficiency measures.
Result: As per the SEAI 2022 annual report, over 27,000 home energy upgrades (up 78% year on year) and over 16,000 home insulation upgrades support grants (up 107% year on year) were provided in 2022. This indicates an increase of renovation activity within Ireland which Kingspan will continue to help support in line with the national renovation plan 2030 targets.
Timeline: opportunity is medium, response is short term.

COST OF MANAGEMENT: More generally, we invest c.10% of revenue in selling and administration expenses. Therefore, we estimate the cost to realise the opportunity as €90 to €200 million. Kingspan is also adding capacity across Europe to address the renovation demand. We expect to invest an additional €140m of development capital expenditure over the next 2-3 years to add capacity as needed. At least 50% of this is for European capacity. Annual op ex €90-200 million - Additional cap ex €140m (over 2 years, perhaps more in the future) In the next 2 – 3 years, we expect the annual investment to support this opportunity will be €180-400m.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Increased revenues through access to new and emerging markets

Company-specific description
Kingspan recently invested in new territories including Iberia, Latin America and India. Each of these markets is at a much earlier stage than Kingspan's more developed markets in terms of adoption of high-performance insulation materials. We have opened a new facility bi-annually in Brazil since entering the market in 2017. Over time, Kingspan will help to develop these markets and to educate building owners and regulators to the benefits of high-performance insulation and thermally efficient building envelopes. We have announced our organic development plans for an additional 20+ sites or operational lines around the world, five of these new facilities are in relatively new geographies for Kingspan, or are adding additional categories to markets, and most are in geographies which are at an earlier stage of development for high performance materials. Kingspan's short- and medium-term strategic plans include ambitions to expand to markets in which we are not active today, but the timing and scale of this expansion is difficult to give guidance on.
We estimate the contribution from access to new markets could add €625-1,250m of annual revenue scaling up to 2028. We estimate the magnitude of impact as high given our announced commitments to expand organically and the ongoing global adoption of high-performance materials.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
625000000

Potential financial impact figure – maximum (currency)
1250000000

Explanation of financial impact figure
There is a significant opportunity, over time, to convert developing energy efficiency markets from traditional building methods and to bring premium products through Kingspan's commercial network. Historically, Kingspan has utilised mergers and acquisitions (M&A) as one means of entering new markets. For this reason, it is difficult to be very specific about timing or financial impact. If we consider our organic expansion plans, we estimate new markets can add €625m to €1,250m in annual revenue, scaling up, over the next five years. M&A has the potential to increase that range.

Cost to realize opportunity
300000000

Strategy to realize opportunity and explanation of cost calculation
A key pillar of Kingspan's strategy is to grow in new markets, bringing our high-performance building envelope solutions to markets at an earlier stage of their adoption of advanced materials.

Case Study: Growth in new markets
Situation: Deliver on strategy to grow in new markets both geographically and technologically
Task: Kingspan has highlighted over 20 key organic expansion plans, with over half of these expanding our presence in relatively new geographies or our ability to service existing geographies where the use of high-performance building materials is growing. We need to support this expansion with development teams who can educate the market on the value of high-performance materials.
Action: Finance and build new manufacturing facilities. Engage development teams to educate governments, architects, design teams and building owners, not only to the direct cost benefits of a more energy efficient building, but also to the long-term environmental impact and the perception impact to customers, investors and employees. For example: -Presenting at tradeshows, industry events; -Engaging with trade associations, regulators, building designers and owners; -Hosting lunch and learns; -Hiring technically qualified commercial teams.

Result: A recent result is Kingspan's growth in Brazil. Kingspan acquired a controlling stake in an insulated panels business in Brazil at the end of 2017. Since then we have constructed 3 new state of the art facilities and have seen significant growth and success as that market moves towards more advanced building solutions. In 2022, we broke ground on an insulated panels site in Vietnam.
Timeline: Short-term, our organic expansion plans are focused over the next 5 years.

Calculation of cost to realise opportunity: Kingspan invests approximately 10% of revenue in general selling and administration expenses. This is likely to be higher in the early stages of developing a market. Therefore, we estimate the cost to realise the opportunity as €62 million to €130 million annually. Kingspan is also adding capacity to address the demand from new markets. We expect to invest an additional €140m of development capital expenditure annually over the next 3 years. In the next 2–3 years, we expect the annual investment to support this opportunity will be €200-300m. While the investment to support the opportunity will be over the short-term, the benefits will be realised in both the short, medium and long-term.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of new products or services through R&D and innovation

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Kingspan's strategy is to be the global leader in innovative building envelope solutions which reduce the resource consumption of buildings, lowering the long-term running costs and the environmental impact of those buildings. Innovation is a key facet to our strategy and Kingspan has market leading products, particularly in the field of building insulation. Kingspan strives to be the market leader with the most advanced solutions. We invest approximately 1% of revenue annually in research and development and digital transformation which gives us significant scale in innovation versus our peers. Kingspan's innovation effort has led to breakthrough products such as QuadCore and Kooltherm. QuadCore is an insulated panel technology which is almost 20% more thermally efficient than a traditional PUR (polyurethane) core panel. Kooltherm is an insulation board technology which is almost twice as efficient as traditional mineral fibre type insulation. These innovative products and future innovative products, such as QuadCore Lower Embodied Carbon will continue to differentiate Kingspan from our competitors and help to drive adoption of advanced materials to bring down the energy consumption of buildings. Kingspan targets each of QuadCore and Kooltherm to be 50% of their relative portfolios within the next 4 years. Kingspan continues to invest in R&D to create technologies which combat climate-change, we expect innovation to increment revenue in the future. A company specific example: QuadCore is Kingspan's most innovative, highest performing insulated panel product with a U-value of 0.018W/mK. QuadCore was brought to the market by Kingspan in 2015, since then we have been rolling out capacity and it has been taking share from traditional insulation as well as PIR core insulated panels. In 2022, QuadCore accounted for c.17 % of our global insulated panel volume. Should Kingspan innovate an energy efficient product with substantially superior carbon saving performance to alternates, it could accelerate share gains from traditional insulation. In addition, Kingspan will continue to grow its market share in innovative technologies like QuadCore and Kooltherm. We estimate the contribution from recent innovation could add €400-850m of annual revenue, scaling up, over the short-term.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
400000000

Potential financial impact figure – maximum (currency)
850000000

Explanation of financial impact figure
Kingspan targets QuadCore to be 50% of our insulated panel revenue within the next 4 years. Additionally, Kingspan targets Kooltherm to be 50% of our rigid board revenue within the next 4 years. These are both Kingspan innovations. Each of these technologies can open new revenue opportunities that would not have been possible with traditional technologies. Naturally there will also be an element of upgrading from other insulation materials. PowerPanel, a fully integrated insulated panel with solar technology, is expected to launch within the next 12 months. It will increase our revenue per square metre of panel sold as it will have a higher price point than an insulated roof panel.
Taking all of these elements into consideration, we estimate that the current roll-out plans of Kingspan's innovative technologies could add €400-850m to revenue annually scaling up to 2028. Revenues from specific product ranges are commercially sensitive so we cannot give detail here. Our assumptions are based on our view of innovative technology share of revenue and potential for new product revenue.

Cost to realize opportunity
62800000

Strategy to realize opportunity and explanation of cost calculation
Kingspan sees innovation as one of our four strategic pillars and therefore it is a key priority to maintain our leadership position on product performance.
Kingspan conducts a full strategic review of its product portfolio annually, to assess the performance of our current portfolio and to identify product gaps. On an ongoing basis, technology opportunities are identified through attendance at tradeshows and industry events, liaising with universities and industry experts and talking to our customers.

Case study: Innovation

Situation: Kingspan seeks to maintain its leadership position in high-performance building materials.

Task: Invest and sustain leadership position through ongoing innovation.
Action: Kingspan established IKON in 2019. IKON is Kingspan's new global innovation centre located in Ireland. IKON contains state-of-the art laboratories and prototyping capabilities. It will bridge business divisions and regions and continue to drive Kingspan's position as leader in sustainable and energy efficient building solutions. Kingspan invests approximately 1% of revenue annually in research and development and digital transformation. In 2022 the investment in R&D was €60.3m, in addition to over €10 million of capital expenditure on IKON and our new fire research facility in 2019. We view this as a fundamental investment to retain Kingspan's leadership position.
Result: Kingspan's continuing investment in research and development involves over 40 key projects. An example of a result from this process is QuadCore Lower Embodied Carbon. Quadcore is Kingspan's most innovative, highest performing insulated panel product with a U-value of 0.018W/mK. QuadCore was brought to the market by Kingspan in 2015, since then we have been rolling out capacity and it has been taking share from traditional insulation as well as PIR core insulated panels. In 2022 Quadcore accounted for c.17% of our global insulated panel volume. Kingspan has continued to develop QuadCore and, working with our supplier on lower carbon raw materials, we launched a lower embodied carbon version of QuadCore, with over 20% less embodied carbon. This is just one example of how we drive sustainable change within our products.
Timeline: Risk is medium-term, response to risk is in the short-term

We calculate the cost of management of the risk as our annual investment in R&D plus the capitalized expense of the investment in our research facilities: €60.3m + €2.5m = €62.8m.

Comment

Identifier
Opp4

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of climate adaptation, resilience and insurance risk solutions

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Kingspan is the global market leader in advanced insulation materials as they relate to the building envelope. Our strategy is designed to convert construction methods from inefficient, traditional technologies to high-performance, energy efficient technologies. We help regulators, building owners, architects and design teams to understand not only the considerable efficiency pay back from an investment in thermal performance, but also the strategic importance of positioning yourself as a responsible business with your stakeholders. Regulation is also a driver, for example, the EU is expected to include the carbon emissions from buildings in the next phase of its Emissions Trading Scheme (ETS II). This will support the demand for high-performance building envelope products as they help to lower the heating and cooling needs of a building. The conversion to high performance, energy efficient building envelopes, from traditional construction methods, has been a successful strategy for Kingspan for decades. This strategy has helped to drive a Compounded Annual Growth Rate (CAGR) of over 17% in revenue since 1994, well in advance of construction macro growth. Kingspan's current balance of products and markets, coupled with increasing regulation, offer significant opportunity for this conversion strategy to continue to deliver organic growth above market growth. We estimate conversion to higher performance insulation materials can add ~3-4% organic growth above construction macro, which is approximately €150-250m in revenue annually. We estimate the magnitude of impact as medium given our historic experience and our market exposures.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
150000000

Potential financial impact figure – maximum (currency)
205000000

Explanation of financial impact figure
Kingspan is a global insulated panel and insulation board manufacturer and has exposure to structural growth opportunities in markets which are converting to higher energy performance building materials. As an example, in the UK, over 60% of relevant buildings are being constructed with high-performance insulated panel technology. In the US, less than 20% of buildings, which could be constructed using high-performance insulated panels, are being constructed using insulated panel technology, in Germany it is less than 50%. Based on our market experience, the distribution of our product set and our end markets, we estimate conversion to energy efficient buildings and higher performance insulation materials can add ~3-4% organic growth for Kingspan, above construction macro annually. Approximately 85% of revenue for Kingspan in 2022 was driven by a demand for energy efficient products and their ancillaries. Approximately 77% of revenue is new build, hence the annual incremental impact could be estimated to be in the range of €150-205m in revenue.

Calculation of impact:
Minimum – €8.3bn (Group revenue) * 80% (share energy efficiency) * 77% (New Build) * 3% = €150m
Minimum – €8.3bn (Group revenue) * 80% (share energy efficiency) * 77% (New Build) * 4% = €205m

Cost to realize opportunity
160000000

Strategy to realize opportunity and explanation of cost calculation
Kingspan's strategy is designed to convert choices of building products and methods of construction to high-performance building materials as they relate to the energy efficiency of the building envelope.
Case Study: US market penetration of high-performance insulation in commercial new build

Situation: Insulated panels are at an early stage of adoption in the US market
Task: Kingspan aims to significantly increase the market share of high-performance insulation in US commercial new build versus traditional methods of construction
Action: Engage development teams to educate governments, architects, design teams and building owners, not only to the direct cost benefits of a more energy efficient building, but also to the long-term environmental impact and the perception impact to customers, investors and employees. For example: -Presenting at tradeshows; -Presenting at industry events; -Engaging with trade associations; -Liaising with regulators and government officials; -Engaging with building owners, architects and design teams at the design stage; -Hosting lunch and learns; -Hiring technically qualified commercial teams, and. -Organically or acquisitively expanding in existing markets. Invest in facilities to support growth of the US market.
Result: To date Kingspan's actions have been a key driver in converting the US market from traditional methods of construction to high performance materials. In the US alone, the penetration (market share) of insulated panels has more than doubled in the past 15 years. This penetration/conversion strategy has been successful for Kingspan for decades, which along with M&A, has led to 17% compounded annual growth in revenue since 1994.
Timeline: Opportunity is expected to be realised in the short-term

Cost of management calculation: Kingspan invests broadly 10% of revenue on SG&A so the incremental cost to realise this conversion revenue, from a sales effort point of view, is in the region of €20m. We expect to invest an additional €140m of development capital expenditure annually over the next 2-3 years to add capacity as needed and a portion of this is to realise the conversion opportunity. Therefore, in the next 2–3 years, we expect the annual investment to support this opportunity will be €150-160m. While the investment to support the opportunity will be over the short-term, the benefits will be realised in both the short, medium and long-term.

Comment

Identifier
Opp5

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resilience

Primary climate-related opportunity driver
Participation in renewable energy programs and adoption of energy-efficiency measures

Primary potential financial impact
Reduced direct costs

Company-specific description
At Kingspan we understand that the built environment has an important part to play in tackling climate change, and we pledge to lead by example in both our products and our operations. Through its 10-year Planet Passionate programme, Kingspan aims to futureproof its operations by significantly reducing the company's carbon footprint by continuing to reduce its energy demand through energy efficiency and rapidly increasing its use of renewable energy (both from the grid and from on-site generation).

Kingspan, via its Planet Passionate 2030 energy targets, aims to increase direct renewable energy use to 60% of total energy use, to generate the equivalent of 20% of total energy demand on-site and to install solar PV systems on all wholly owned sites.

We estimate the savings if this opportunity materialises to be in the region of €32-58m and we estimate that the time horizon is medium-term.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
32000000

Potential financial impact figure – maximum (currency)
58000000

Explanation of financial impact figure
Energy efficiency measures: Improving energy efficiency is managed via our Planet Passionate programme and through this programme we have made a significant contribution to reducing energy costs. However, there are still multiple initiatives that can be rolled out across the business to further reduce our energy costs.

Example: We are currently assessing the viability of rolling out energy performance contracts across our sites. Based on successful contracts already in place at sites in the UK and Ireland (approx. €40,000 per annum savings per site) we estimate potential annual energy savings of up to €8,360,000 across 209 sites that do not currently have energy performance contracts in place.

Renewable energy programmes To increase energy resilience, amongst other things, Kingspan has set three renewable energy targets to achieve by 2030.
Example: To reduce potential exposure to increased operational costs from future rises in electricity costs. Assuming Kingspan can lock-in today's energy prices, by deploying renewable electricity projects and signing renewable electricity contracts, we estimate we can save up to €24-50m on the c.289.6 GWh currently being consumed by the business.

CALCULATION OF PONTENTIAL FINANCIAL IMPACT:

Energy efficiency: energy performance contracts: 209 sites x 40,000 = €8,360,000 potential saving pa.

Renewable energy:
Kingspan has 212 manufacturing facilities globally purchases 289.6 GWh of electricity. Based scenario analysis the examined models project the below price increases for GWh of electricity:

2030 predicted price (BAU scenario) = price increase x2
2030 predicted price (1.5C scenario) = price increase x1.5
Potential increase in electricity costs €24-50m

Total potential saving opportunity: €8.36m (energy performance contracts) + €24-50m (lock-in today's energy prices) = €32-58m

Cost to realize opportunity
6000000

Strategy to realize opportunity and explanation of cost calculation
Kingspan has set three renewable energy targets as part of its Planet Passionate programme to be achieved by 2030. Achieving these targets will help us to increase our energy resilience, exposure to increase energy prices and continual improve and expand our energy efficiency measures across the business.

CASE STUDY: On-site renewable energy generation programme
- Situation: Kingspan has set a target to generation the equivalent of 20% of its total energy use on-site by 2030
- Task: deployment of on-site renewable energy systems that can generate the equivalent of 20% of total energy demand by 2030
- Action: In 2022 we deployed 18 rooftop solar PV systems with estimated 6.4 GWh additional annual capacity.
- Result: In 2022, Kingspan generated the equivalent of 7.1% (4.8% in 2021) of its total energy use on-site via 70 renewable energy generation systems.
- Timeline: medium

We are currently planning and deploying multiple solar PV projects across our operations which by end of 2024, will generate estimated 32.7 GWh of renewable electricity, 3.2% of Kingspan's total energy use.

If prices are secured at current or below current market rates for all projects, we expect to save between €24-50m in additional annual operational energy costs by 2030 and a potential further €8.36m via energy efficiency savings.

COST TO REALISE OPPORTUNITY: We estimate the cost of management annually to be approximately €6m - In early 2020, we announced that we arranged a bilateral "Green Loan" of €50 million to fund our Planet Passionate Initiatives over the programme, over 10 years (~€5m annual investment) - €1m in time commitment and the budget for integrated systems for managing progress against our targets.

Comment

Identifier
Opp6

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
We are starting to see increased awareness and action from our top tier customer base (end clients, developers etc) to address the embodied and operational carbon impact of their building (new and existing) assets. Almost 40% of annual energy related carbon emissions are attributable to the built environment. Within the EU, regulation to reduce emissions from the built environment is expected to increase to help achieve EU climate goals via building regulations, access to financing (EU Taxonomy) and carbon pricing mechanisms (EU ETS II). This has led to increased focus on addressing building emissions to meet corporate responsibility requirements and to ensure assets developed in the short term are not subject to high operational carbon taxes in the future.

A significant proportion of a building embodied and operational carbon impact comes from how the building has been designed and the materials used. Based on this, we have seen increased interest and engagement from top tier customers seeking to develop strategic partnerships with key suppliers to enable them to develop lower embodied carbon, net zero energy buildings. Kingspan see this as a significant opportunity to strengthen its relationships with key customers who have similar strategic decarbonisation goals.
We estimate that the financial impact- if this opportunity materialises -will be between €1bn-€1.9bn.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
1000000000

Potential financial impact figure – maximum (currency)
1950000000

Explanation of financial impact figure
In opportunity 1 and opportunity 4 we demonstrated the potential to add €1000 - 1905m of incremental revenue over the short-medium term. Engagements with our key customers on how we can help them to meet their sustainability goals, strengthens our position in relation to being able to realise those opportunities.

Calculation of potential financial impact: this opportunity helps us to achieve opportunity 1 and 4 opportunity, therefore the potential financial impact is assumed as €1,000 - 1,905m if both opportunities are realised.

Cost to realize opportunity
1000000

Strategy to realize opportunity and explanation of cost calculation
Our strategy to realise this opportunity is to leverage our existing internal expertise and resources within the relevant business units to develop project specific recommendations and potential operational and embodied carbon savings estimates that could be achieved from optimising multiple Kingspan solutions together on a building.

Case study: Developer customer logistics building
Situation: A developer customer is seeking to reduce the operational and embodied carbon impact of a new logistic building.
Task: Review the project requirements and determine how Kingspan products can help to reduce the whole life carbon impact of the building.
Action: A project team was developed including technical, commercial and sustainability colleagues from our Group and divisional teams. The team worked closely with the customer to develop a project proposal which was presented back to the customer's internal teams.
Result: the project proposal presentation was able to clearly outline the potential whole life carbon savings form utilising Kingspan solution together (insulation, roofing, solar PV, daylighting and natural ventilation). The presentation also led to an additional request for the team to review a large project the customer was developing in another country.
Time: Opportunity is medium – long term, response is short term

Cost to realise this opportunity: We estimate the cost of management annually to be approximately €1m. This includes cost includes both internal (time and meetings) and external resources (modelling software etc) required to assess and determine potential whole life carbon savings for specific projects.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan
Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan
Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan
Our climate transition plan is voted on at Annual General Meetings (AGMs)

Description of feedback mechanism
<Not Applicable>

Frequency of feedback collection
<Not Applicable>

Attach any relevant documents which detail your climate transition plan (optional)
Kingspan_PP Report_22_final.pdf

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future
<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy
<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios: Customized publicly available transition scenario	Company-wide	1.5ºC	Being aware of the limitations and constraints of publicly available scenarios, we also included in our scenario analysis a mix of Shared Socioeconomic Pathways (SSPs) and related Integrated Assessment Models (IAMs). More specifically, we used SSP1 (a low challenges to mitigation and adaptation pathway), SSP2 (a medium challenges to mitigation and adaptation pathway), SSP5 (a high challenges to mitigation, low challenges to adaptation) and three Representative Concentration Pathways (RCP) targets: 1.9, 3.4 and 6.0 w/m2 targets (1.3 – 1.4, 2.1 – 2.3 and 3.2-3.3 Co respectively). This approach allowed us to better understand broad socioeconomic trends that could shape future society and gain access to a wider array of quantitative information (e.g. carbon prices).
Physical climate scenarios: RCP 6.0	Company-wide	<Not Applicable>	To understand and assess our vulnerable to physical risks across our global operations, we looked at two RCP emissions pathways (RCP 6.0 and RCP 8.0) as these were modelled via global models. The projected datasets were then used to evaluate our vulnerability and exposure of our manufacturing facilities to both acute and chronic physical climate risks.
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	To understand and assess our vulnerability to physical risks across our global operations, we looked at two RCP emissions pathways (RCP 6.0 and RCP 8.5) as these were modelled via global models. The projected datasets were then used to evaluate our vulnerability and exposure of our manufacturing facilities to both acute and chronic physical climate risks.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

What potential developments need to be analysed to inform our strategy and improve the resilience of our strategy?

Results of the climate-related scenario analysis with respect to the focal questions

To address our focal question, we used a combination of transition and physical scenarios. For the former we used a mix of Shared Socioeconomic Pathways (SSPs) and related Integrated Assessment Models (IAMs). Specifically, we used SSP1 (a low challenges to mitigation and adaptation pathway), SSP2 (medium challenges to mitigation and adaptation), SSP5 (high challenges to mitigation, low challenges to adaptation) and three Representative Concentration Pathways (RCP) targets: 1.9, 3.4 and 6.0 w/m2 targets (1.3 – 1.4, 2.1 – 2.3 and 3.2-3.3 Co respectively).

We chose these scenarios to help us better understand broad socioeconomic trends that could shape future society and gain access to a wider array of quantitative information (e.g. carbon price). The results of the climate-related scenario analysis are used to assess, among others, the demand for low carbon products, our exposure to high energy and carbon prices and vulnerability to physical risks (see questions C2.3a and C2.4a for more details). A wide range of carbon prices (€95-€303) were outputted from the scenario process, which we used to assess the potential future impact of energy costs to Kingspan's manufacturing operations under a range of pathways and socioeconomic trends.

See C2.3a Risk 5, we estimate higher energy prices could add €1.3-65m in cost to Kingspan if not addressed. Based on the results of our scenario analysis, in 2021 Kingspan announced its intention to implement a carbon charge throughout the business. The aim of this charge is to motivate businesses to drive efficiencies in their processes & to accelerate investment in low carbon technologies to manufacture our products.

We conducted an internal review to set the charge at a level which would incentivise the business to meet our Planet Passionate (sustainability) targets. The carbon charge has been set at €70/tCO2e. Returns on investment are calculated utilising this carbon charge and therefore it has a significant relevance for capital expenditure and capital allocation. As a direct result of the decision to apply a carbon charge, projects which had previously not been given the green-light for not meeting the necessary returns hurdle, are now being reconsidered.

The scenario analysis results also prompted a need for a deeper insight into the energy policy landscape, the current and future state of the market and a more detailed analysis of our manufacturing sites' heat processes, we therefore commissioned a renewable heat study. The heat study examined our current heat use across our global business and modelled potential options for decarbonising multiple processes, an assessment of the financial investments required and the impact on fuel costs to 2030. We will utilise the results of the study to make targeted investments in line with our Group specific needs and market specificities.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Kingspan recognises climate related risks and opportunities in its products and services strategy. Kingspan is the market leader in high-performance insulation technologies. As described in section 2.3a (Risk 1,3) and 2.4a (Opp 3,4,6), Kingspan recognises both risks and opportunities from the development of products which enable our customers to design, build or own buildings which minimise the contribution to operational and embodied carbon emissions. We have conducted scenario analysis to understand the potential impacts to our business from failing to innovate to address the demand for lower carbon construction products. We estimate this risk to be in the range of €0 to €1.25 billion, depending on the scenario used (see Risk 1). To be a market leader in carbon efficient solutions, we took the strategic decision to transform our Net Zero Energy strategy to become our Planet Passionate strategy which sets targets and strategies to realise significant carbon reductions in both our manufacturing process and via our primary raw material supply partners. Kingspan has made two public commitments to reduce Scope 3 emissions, i) Planet Passionate target: 50% CO2 intensity reduction in products from primary supply partners by 2030 from a 2019 baseline, and ii) a verified SBTi (see detail 2.3a Risk 1). We have been engaging with our supply chain on an ongoing basis since the launch of this strategy. A direct result of this engagement has been the development of QuadCore lower embodied carbon (LEC), which is an insulated panel product with over 20% lower embodied carbon than our market leading QuadCore insulated panel. We also launched RMG600 (raised access floor) lower embodied carbon in our data and flooring division. We will continue our engagement and collaboration approach with our suppliers (see H2GS example in Supply Chain comment below) with the aim of widening and further improving our lower embodied carbon portfolio. Magnitude of impact is high: a) C2.3a Risk 1 €0-1.25billion; b) Opportunity, C2.4a Opp 3,4,6 €400-1,050m Time horizon is: short-, medium- and long-term
Supply chain and/or value chain	Yes	We recognise the need to minimise the carbon emitted due to the manufacture of our products, much of which comes from raw materials in our value chain. We acknowledge the potential risk to revenue if customers seek out lower embodied carbon alternatives (2.3a Risk 1) and the risk of potential higher costs of materials due to higher energy/carbon prices in the future (2.3a Risk 2). Scenario analysis informed our view on the potential risk to future materials prices, as per Risk 2. To be a market leader in carbon efficient solutions, we took the strategic decision to transform our Net Zero Energy strategy to our Planet Passionate strategy which sets targets and strategies to realise significant carbon reductions in both our manufacturing process and via our primary raw material supply partners. Kingspan has made two public commitments to reduce Scope 3 emissions, i) Planet Passionate target: 50% CO2 intensity reduction in products from primary supply partners by 2030 from a 2019 baseline, and ii) a verified SBT (see detail 2.3a Risk 1). Mitigation activities include establishing a Kingspan Group Sustainability Team to monitor emissions and implement projects to reduce Scope 1, 2 & 3 emissions; engagement with our supply partners at the highest level; and ongoing R&D projects with new and existing suppliers with a view to reducing Scope 3 emissions. A substantial outcome of these mitigation activities has been the investment by Kingspan in H2 Green Steel (H2GS). Steel is a key raw material for Kingspan and the largest contributor to our Scope 3 emissions. H2GS aims to be producing steel in 2025 with 95% less carbon than comparable steel today. Kingspan will be a minority equity investor in H2GS but will have a future supply agreement in place. Kingspan is the only construction company invested in H2GS to date, demonstrating our leadership position in the sector. As described in 2.4a Opp 4 & 6, a core part of Kingspan's strategy is to convert construction methods to high-performance building solutions. While embodied carbon in our insulation systems is fractional when compared with the carbon savings in use, any reduction in embodied carbon would offer an even more compelling case for our conversion strategy. Magnitude of impact is high; a) Risk (2.3a Risk 1&2): €0m–2,500m; b) Opportunity (2.4a Opp 3,4&6): €150-1,050m Time horizon is short- to medium-term.
Investment in R&D	Yes	Climate-related risks and opportunities are core elements of Kingspan's Research and Development (R&D) investment strategy. Innovation is one of Kingspan's key strategic pillars. As a manufacturer of climate-mitigating low-carbon technologies, our innovation agenda is centred around creating products which reduce the carbon emissions of the built environment. We recognise Innovation both as a risk (2.3a Risk 1&3) and an opportunity (2.4a Opp 3) in the short-, medium- and the long-term. Kingspan invests approximately 1% of revenue annually on R&D and digital transformation which gives us significant scale advantage in innovation versus our peers. The most substantial strategic decision taken to date has been to invest in a global centre of excellence for innovation, IKON, at Kingspan's Group Headquarters in Ireland. This centres innovation as a groupwide function with a Global Head of Innovation reporting directly to the CEO. The group role enables close collaborations with the sustainability team, our supply partners and the managing directors of the various divisions at Kingspan. Kingspan's innovation and sustainability strategies are inextricably linked with both functions working closely together. Work at IKON will drive future product innovation at Kingspan, cementing our position as the market leader in energy efficient building envelope products. Kingspan's commitment to innovation has resulted in market leading technologies. A key example of this would be Kingspan's development of our lower embodied carbon portfolio, bringing QuadCore LEC (insulated panels) and RMG600 LEC (data and flooring) to market in early 2023. This is a good example of how product and service, supply chain, and innovation all come together to bring sustainably different products to market. This strategy is also informed by scenario analysis as demonstrated in Risk 1&3. Magnitude of risk is high: a) Risk (2.3a Risk 1 and 3): €0m - €2,500m; b) Opportunity (2.4a Opp 3): €400 - €850m. Innovation is a risk and opportunity over the short-, medium- and long-term.
Operations	Yes	Kingspan business operations strategy has been influenced by climate change risk planning, predominantly as it relates to mitigating against risks of direct and indirect operational cost increases due to the rising cost of energy and/or carbon taxes. Many countries in which Kingspan operates have already implemented carbon pricing mechanisms, with more expected to implement carbon taxes or pricing mechanisms in the future. In addition, to meet the objectives of the Paris Accord, we expect increases to the current carbon taxes or pricing mechanisms from changes to initiatives such as the EU's Emissions Trading Scheme. As per section 2.3a Risk 4, we estimate energy costs for Kingspan could increase €0-65million by 2030, therefore the risk is medium-term. These estimates are based on an assumption of an introduction of a carbon charge of €45/tCO2e (rising to €303/tCO2e in a stressed scenario) through the EU ETS which is set to encompass buildings in its next phase. As per section 2.3a Risk 4, we estimate carbon costs within our supply chain could rise by €95-€303 per tCO2e by 2030. These risks and the strategies to mitigate them were informed by our scenario analysis (2.3a, risks 2&4). In 2011, Kingspan initiated a strategy to attain Net Zero Energy status by 2020. In 2019 we updated our strategy to our Planet Passionate programme with the aim of mitigating against climate change by reducing energy consumption and increasing our use of renewable energy. Within this programme we have targets to a) increase our direct use of renewable energy to 60% by 2030; b) increase our on-site generation of renewable energy to 20% by 2030; c) install solar PV systems on all wholly owned facilities by 2030; and d) to reduce carbon emissions in our primary raw materials by 50% by 2030. This strategy will reduce Kingspan's energy consumption from the grid and reduce the carbon associated with our energy consumption, therefore reducing the risk associated with increased, carbon related, energy costs. Kingspan arranged a €50m Green Loan in 2019 to support these initiatives. In 2022, we installed PV solar project on 18 sites, with potential generation over 6.4 GWh of renewable electricity per annum. Magnitude of Impact, medium/high: Risk (2.3a Risk 2&4) - €0m-€1,300m. Opportunity (2.4a Opp 5) - lower energy costs €32-58m. Time horizon - This is a risk and opp over the medium-term.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	Revenues: Time horizon – short, medium and long-term. Magnitude of Impact – High, €1-3billion. Kingspan's strategic plan includes significant future revenue impact from climate related opportunities. Kingspan's core strategy is to convert construction markets from inefficient, traditional methods of construction, to constructing with high-performance building envelopes, which reduce energy consumption and carbon emissions (Opp1&6). Supported by our innovation (Opp3, Risk 3), expansion (Opp2) and Planet Passionate (Risk 1,2) strategies. There is some overlap in these opportunities and strategies. Direct costs: Time horizon – medium-term. Magnitude of Impact – Low, €32-65million. The key area in which direct costs are likely to be impacted as a result of climate change is energy costs, including carbon fines/taxes. Kingspan launched its Planet Passionate strategy to align with our mission, as well as to manage risks around direct costs. Planet Passionate targets include sourcing 60% of our energy requirements directly from renewables by 2030, reducing direct (i.e. manufacturing) energy price risks related to carbon (Risk 4, Opp 5). Indirect costs. Time horizon – short-term. Magnitude of Impact – Low, €60-65million. Kingspan aims to lead the advancement of materials, building systems and digital technologies to address issues such as climate change and circularity. In order to meet these strategic objectives, Kingspan must invest in indirect expenses, such as R&D, a technically educated sales team and the Planet Passionate (Sustainability) Team. The largest indirect cost related to climate-change is R&D, in 2022 the R&D investment amounted to €60.3m. These investments support revenue growth (Opp 1,2,3&4) and protect against risks to revenue and rising energy costs (Risks 1,2&3). Acquisitions. Time horizon – short-term. Magnitude of impact – high. Kingspan invested €887m in 2022 on acquisitions. Kingspan has historically targeted mergers and acquisitions (M&A) as a route to execute its strategy. Kingspan plans to allocate future capital to M&A for the following reasons: i) to consolidate an end market, augmenting our ability to convert that market to high-performance building envelopes which save energy and carbon (Opp 1,2,3,4&6); ii) to expand to new geographies which are at an earlier stage in their adoption of high-performance building envelopes, a significant long-term growth opportunity (Opp 2); and iii) to acquire new technologies which complement our energy and carbon efficient building envelope solutions (Opp 3). Access to Capital. Time horizon – short-term. Magnitude of impact – low (defined as low because incremental contribution to cost of capital is low). Kingspan's Planet Passionate sustainability strategy has enabled us to access cheaper forms of capital, for example, in 2020, Kingspan issued a sustainability aligned €750m Green Private Placement. This loan has favourable terms, aligned with Kingspan meeting its Planet Passionate objectives. Assets: Time horizon – short-term. To date, impact to assets is low. Investment in assets is a continuation of investment in high-performance building envelope technologies and capacity. Kingspan aims to construct new manufacturing assets utilising as much renewable energy as possible while also improving the performance of our current estate (Opp 5; Risk 4&5). Liabilities: Time horizon – short-term. Magnitude of Impact – low. One notable change is the inclusion of the €750m green Private Placement loan which has favourable terms, aligned with meeting our sustainability objectives. The following case study should demonstrate the way in which capital allocation and capital expenditure have been impacted by climate related planning. Case Study: Capital Allocation and capital expenditure. Time Horizon – short-term. Magnitude of Impact – High. In 2021 Kingspan announced its intention to implement a carbon charge throughout the business. The aim of this charge is to motivate businesses to drive efficiencies in their processes and to accelerate investment in low carbon technologies to manufacture our products. We conducted an internal review to set the charge at a level which would correctly incentivise the business to meet our Planet Passionate targets. The carbon charge has been set at €70/tCO2e. Returns on investment are calculated utilising this carbon charge and therefore it has a significant relevance for capital expenditure and capital allocation. As a direct result of the decision to apply a carbon charge, projects which had previously not been given the green-light for not meeting the necessary returns hurdle, are now being reconsidered. For example, in 2022, one of our facilities in the US switched from non-renewable electricity to a green renewable product. The carbon charge was critical to incentivising the business to make this conversion.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with a sustainable finance taxonomy	At the company level only

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric
Revenue/Turnover

Type of alignment being reported for this financial metric
Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported
EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported
Climate change mitigation

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
0

Percentage share of selected financial metric aligned in the reporting year (%)
0

Percentage share of selected financial metric planned to align in 2025 (%)
52

Percentage share of selected financial metric planned to align in 2030 (%)
52

Describe the methodology used to identify spending/revenue that is aligned
Numerator: Included in the numerator for taxonomy eligible and aligned activities2 are activities under Annex I – 3.5. Manufacturing of energy efficiency equipment for buildings, 3.6. Manufacture of other low carbon technologies, 7.1. Construction of new buildings and 7.2 Renovation of existing buildings. The difference between eligible

and aligned turnover reflects products for which there is no technical hurdle defined, or products which don't meet the requisite technical hurdle.
Key assumptions:
Insulated pipework for district heating has been included under Annex I, 3.5.
Denominator: Kingspan's total revenue as disclosed in our 2022 preliminary results and in Note 2 of our 2022 Annual Report.
Minimum Safeguards:
Kingspan is fully committed to the highest standards as it relates to human and labour rights, bribery, taxation and fair competition.
In late 2021 we subscribed to EcoVadis as a supplier management platform, to help us monitor and track the environmental, social and governance performance of our suppliers. To date we have received scorecards which cover 41% of our key suppliers by spend. For those suppliers which may not have the resource to complete an EcoVadis review, we are developing a due diligence process, in line with OECD and UN guidelines for multinational enterprises. We expect this due diligence process to be rolled out globally through 2023.
We are also in the process of conducting a Human Rights Risk Assessment globally.
As these processes are underway rather than complete, we have taken the decision to declare zero percent EU Taxonomy alignment for Kingspan for Financial Year 2022, with the expectation that we will more toward the eligibility percentage by Financial Year 2023.
Do No Significant Harm (DNSH)
In addition - until have implemented a more thorough system of data collection and analysis, we also took the decision to say that we are not aligned under the pillars of DNSH. We are currently scoping a system to test our alignment on both pillars.
Our target is based on closing the gap between eligible and aligned.

Financial Metric
CAPEX

Type of alignment being reported for this financial metric
Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported
EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported
Climate change mitigation

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
0

Percentage share of selected financial metric aligned in the reporting year (%)
0

Percentage share of selected financial metric planned to align in 2025 (%)
40

Percentage share of selected financial metric planned to align in 2030 (%)
40

Describe the methodology used to identify spending/revenue that is aligned
Taxonomy Eligible and Aligned Capital Expenditure
Numerator: Items in the denominator relating to taxonomy eligible and aligned activities.
Denominator: Additions to tangible, including IFRS 16 Right of Use Assets, and intangible assets during the financial year considered before depreciation, amortisation, and any re-measurements, including those resulting from revaluations and impairments, for the relevant financial year and excluding fair value changes (Notes 11, 12 and 17 of the 2022 Annual Report1). The denominator shall also cover additions to tangible and intangible assets resulting from business combinations as defined in Note 23 of our 2022 Annual Report1. Goodwill is not included in the denominator. The difference between eligible and aligned capital expenditure reflects expenditure related to products or services for which there is no technical hurdle defined, or which don't meet the requisite technical hurdle.
Minimum Safeguards:
Kingspan is fully committed to the highest standards as it relates to human and labour rights, bribery, taxation and fair competition.
In late 2021 we subscribed to EcoVadis as a supplier management platform, to help us monitor and track the environmental, social and governance performance of our suppliers. To date we have received scorecards which cover 41% of our key suppliers by spend. For those suppliers which may not have the resource to complete an EcoVadis review, we are developing a due diligence process, in line with OECD and UN guidelines for multinational enterprises. We expect this due diligence process to be rolled out globally through 2023.
We are also in the process of conducting a Human Rights Risk Assessment globally.
As these processes are underway rather than complete, we have taken the decision to declare zero percent EU Taxonomy alignment for Kingspan for Financial Year 2022, with the expectation that we will more toward the eligibility percentage by Financial Year 2023.
Do No Significant Harm (DNSH)
In addition - until have implemented a more thorough system of data collection and analysis, we also took the decision to say that we are not aligned under the pillars of DNSH. We are currently scoping a system to test our alignment on both pillars.
Our target is based on closing the gap between eligible and aligned.

Financial Metric
OPEX

Type of alignment being reported for this financial metric
Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported
EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported
Climate change mitigation

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
0

Percentage share of selected financial metric aligned in the reporting year (%)
0

Percentage share of selected financial metric planned to align in 2025 (%)
76

Percentage share of selected financial metric planned to align in 2030 (%)

76

Describe the methodology used to identify spending/revenue that is aligned

Taxonomy Eligible and Aligned Operational Expenditure
Numerator: Items in the denominator relating to taxonomy eligible and aligned activities.
Denominator: Direct non-capitalised costs that relate to research and development, building renovation measures, maintenance, and repair. Other direct expenditures relating to day-to-day servicing of assets of property, plant and equipment are not included as they are not recorded separately, cannot be readily approximated and are not considered material. The difference between eligible and aligned operating expenditure reflects expenditure related to products or services for which there is no technical hurdle defined, or which don't meet the requisite technical hurdle.
Operating expenditures are included in 'Cost of sales' and 'Operating costs excluding intangible amortisation' as per the Consolidated Income Statement on page 138 of our Annual Report1 with detail on the total R&D expense of €60.3m in Note 6 of our 2022 Annual Report.
Minimum Safeguards:
Kingspan is fully committed to the highest standards as it relates to human and labour rights, bribery, taxation and fair competition.
In late 2021 we subscribed to EcoVadis as a supplier management platform, to help us monitor and track the environmental, social and governance performance of our suppliers. To date we have received scorecards which cover 41% of our key suppliers by spend. For those suppliers which may not have the resource to complete an EcoVadis review, we are developing a due diligence process, in line with OECD and UN guidelines for multinational enterprises. We expect this due diligence process to be rolled out globally through 2023.
We are also in the process of conducting a Human Rights Risk Assessment globally.
As these processes are underway rather than complete, we have taken the decision to declare zero percent EU Taxonomy alignment for Kingspan for Financial Year 2022, with the expectation that we will more toward the eligibility percentage by Financial Year 2023.
Do No Significant Harm (DNSH)
In addition - until have implemented a more thorough system of data collection and analysis, we also took the decision to say that we are not aligned under the pillars of DNSH. We are currently scoping a system to test our alignment on both pillars.
Our target is based on closing the gap between eligible and aligned.

C3.5c

(C3.5c) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

Our EU Taxonomy disclosures are not verified at this time but we expect them to be verified within the next 2 years. Context relating to measurements, assumptions and calculations is given in section C3.5a.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
1.5°C aligned

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Base year
2020

Base year Scope 1 emissions covered by target (metric tons CO2e)
454788

Base year Scope 2 emissions covered by target (metric tons CO2e)

82145

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
536933

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
90

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
53693.3

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
366937

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
44750

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
411687

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
25.9179864568246

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
The target boundary includes biogenic emissions and removals from bioenergy feedstocks.

Plan for achieving target, and progress made to the end of the reporting year
Our plans to achieve this target include, but are not limited to: process emissions reductions, energy productivity improvement, energy use reduction and renewable energy use increase. The anticipated progress curve is expected to be variable. For more information please visit our 2022 Planet Passionate Report.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

Target reference number
Abs 2

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
1.5°C aligned

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 11: Use of sold products
Category 12: End-of-life treatment of sold products

Base year
2020

Base year Scope 1 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
6603178

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
452094

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
417220

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
7472492

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
7472492

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
100

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
100

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
100

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
97

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
97

Target year
2030

Targeted reduction from base year (%)
42

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
4334045.36

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
6288115

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
324621

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
303859

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
6916595

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
6916595

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
17.7124884939895

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
The target covers the outlined categories of our scope 3 emissions for our global operations.

Plan for achieving target, and progress made to the end of the reporting year
We're planning to achieve this target by, among others, continuous supplier engagement and collaboration and by procuring lower embodied carbon raw materials. For more information please visit our 2022 Planet Passionate Report.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2020

Target coverage
Company-wide

Target type: energy carrier
All energy carriers

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2020

Consumption or production of selected energy carrier in base year (MWh)
638200

% share of low-carbon or renewable energy in base year
19.5

Target year
2030

% share of low-carbon or renewable energy in target year
60

% share of low-carbon or renewable energy in reporting year
33

% of target achieved relative to base year [auto-calculated]
33.3333333333333

Target status in reporting year
Underway

Is this target part of an emissions target?

This is a company specific target which formed part of our commitments made through our company wide Planet Passionate programme. This target will help to support the achievement of our science based targets (as described above).

Is this target part of an overarching initiative?
Other, please specify (This target is part of our Planet Passionate strategy and will help us meet out SBTs.)

Please explain target coverage and identify any exclusions
For the calculation of our progress against this target we're including heat generated (output) as opposed to total biomass input to account for losses.

Plan for achieving target, and progress made to the end of the reporting year
We have developed a pathway to achieve our target by reducing the energy intensity of our processes and increasing our procurement and generation of renewable energy. We intend to replace fossil fuel with bio-based fuels, electrification and innovative new renewable energy sources and technologies as they become available. For more information, please see our 2022 Planet Passionate report.

List the actions which contributed most to achieving this target
<Not Applicable>

Target reference number
Low 2

Year target was set
2020

Target coverage
Company-wide

Target type: energy carrier
All energy carriers

Target type: activity
Production

Target type: energy source
Renewable energy source(s) only

Base year
2020

Consumption or production of selected energy carrier in base year (MWh)
37300

% share of low-carbon or renewable energy in base year
4.9

Target year
2030

% share of low-carbon or renewable energy in target year
20

% share of low-carbon or renewable energy in reporting year
7.1

% of target achieved relative to base year [auto-calculated]
14.5695364238411

Target status in reporting year
Underway

Is this target part of an emissions target?
This is a company specific target which formed part of our commitments made through our company wide Planet Passionate programme. This target will help to support the achievement of our science based targets (as described above).

Is this target part of an overarching initiative?
Other, please specify (This target is part of our Planet Passionate strategy and will help us meet out SBTs.)

Please explain target coverage and identify any exclusions
This target was set in 2020 and covers our global operations (offices are excluded as they are not deemed material).

Plan for achieving target, and progress made to the end of the reporting year
We are deploying options to generate both renewable electricity and heat. For more information, please see our 2022 Planet Passionate report.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	69	2446
Implementation commenced*	4	947
Implemented*	10	177609
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Non-energy industrial process emissions reductions	Process material substitution

Estimated annual CO2e savings (metric tonnes CO2e)
148000

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
<1 year

Comment

Initiative category & Initiative type

Low-carbon energy consumption	Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)
26500

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
<1 year

Comment
Conversion of 24 electricity contacts to renewable.

Initiative category & Initiative type

Low-carbon energy consumption	Other, please specify (Conversion of fossil fuel contacts to renewable alternatives)

Estimated annual CO2e savings (metric tonnes CO2e)
1500

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
<1 year

Comment

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
1036

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
280000

Investment required (unit currency – as specified in C0.4)
1000000

Payback period
4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
15 lighting convesion projects across our business

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
80

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
120000

Investment required (unit currency – as specified in C0.4)
1000000

Payback period
4-10 years

Estimated lifetime of the initiative
21-30 years

Comment

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
82

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
26720

Investment required (unit currency – as specified in C0.4)
189000

Payback period
4-10 years

Estimated lifetime of the initiative
21-30 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
43

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
13500

Investment required (unit currency – as specified in C0.4)
6000

Payback period
<1 year

Estimated lifetime of the initiative
16-20 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
24

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
7400

Investment required (unit currency – as specified in C0.4)
10000

Payback period
<1 year

Estimated lifetime of the initiative
11-15 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
74

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
23300

Investment required (unit currency – as specified in C0.4)
141300

Payback period

4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
Various optimisation projects across our global operations.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
270

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
84672

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
16-20 years

Comment

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	In some regions of operation, regulatory frameworks require reporting of emissions and the identification of reduction plans. In addition, Kingspan's sales teams highlight the benefit of using the Kingspan suite of products in order to meet these regulatory requirements / standards.
Employee engagement	Planet Passionate, Kingspan's sustainability programme, is one of the four key pillars of our strategy to grow and sustain the business. It therefore has huge profile within the business globally. Divisional progress towards our Planet Passionate targets is updated monthly at the highest level. There is significant employee engagement because of the profile given to environmental sustainability, this is enhanced with educational programmes and community initiatives to drive emissions reductions and environmental awareness, not just in our business but also in our communities. Disclosure activities such as that required for CDP provide an important framework for year-on-year performance measurement and the identification of future initiatives.
Dedicated budget for other emissions reduction activities	In June 2021, we signed up to a five-year €700m Revolving Credit Facility. The facility has an in-built pricing incentive on the achievement of sustainability indicators that are based on our Planet Passionate commitments, across the themes of carbon, energy, circularity and water. To date we have made investments such as solar PV, geothermal heat technology and process electronification.
Dedicated budget for low-carbon product R&D	Kingspan invested €60.3m in R&D in 2022 (€40.9m 2021). Kingspan aims to be the market leader in high performance building materials which can help our customers save energy and carbon. A goal of our R&D function is to continue to make iterative improvements to the thermal performance of our building envelope solutions. Another significant goal of our R&D function is to reduce embodied carbon within our products. This can be done through efficiencies in our own operations, but also by using low-carbon alternatives for our current raw materials. Examples of this would be our investment in H2 Green Steel, a company which aims to produce steel with 95% less carbon from the manufacturing process from 2026 or the development of a low carbon insulated panel with a value chain partner which we launched in 2023. Our R&D function has a dedicated budget, which is overwhelmingly geared towards reducing carbon emissions in the built environment.
Internal price on carbon	Kingspan is introducing an internal carbon charge in 2023, set at €70/tonne of CO2e. This carbon charge is set at a level which we have analysed will drive significant capital investment to lower the use of non-renewable fuel and lower carbon emissions across the organisation. See Section 11 for more detail.
Dedicated budget for energy efficiency	In June 2021, we signed up to a five-year €700m Revolving Credit Facility. The facility has an in-built pricing incentive on the achievement of sustainability indicators that are based on our Planet Passionate commitments, across the themes of carbon, energy, circularity and water. As part of the energy theme, investments are also being made in energy efficiency projects. To date we have made investments such as replacement of lighting systems with more efficient ones (e.g. LED) and machinery upgrades.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Buildings construction and renovation	Building orientation: Thermal performance

Description of product(s) or service(s)
Kingspan manufactures insulation materials used in the construction and refurbishment of buildings, to provide a thermal barrier for containing heating or cooling within the building structure. High performance insulation reduces the energy consumption needed to heat or cool a building, therefore saving energy and carbon emissions. Products included in the numerator for taxonomy eligible activities are activities under Annex I – 3.5. Manufacturing of energy efficiency equipment for buildings, 3.6. Manufacture of other low carbon technologies, 7.1. Construction of new buildings and 7.2 Renovation of existing buildings. We don't break out the individual revenues per component as this is commercially sensitive information.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
Other, please specify (Independent analysis by engineering consultants.)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Cradle-to-grave

Functional unit used
linear meter

Reference product/service or baseline scenario used
Baseline scenario includes no insulation within the building architypes.

Life cycle stage(s) covered for the reference product/service or baseline scenario
Cradle-to-grave

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
173000000

Explain your calculation of avoided emissions, including any assumptions
An analysis was conducted to calculate the estimated energy and CO2e savings derived from the use of Kingspan insulation panel and board products. The information used included sales figures (by m²) for each country/region. and Environmental Product Declaration documents (EPDs) for the selected insulation products. Kingspan also identified which countries/regions are served by the different factories for which EPDs were provided. This allowed AECOM to determine which EPD applied to the products being sold in each country listed in the sales data. The three key sectors used in the analysis were industrial, commercial and residential. A typical archetypal building for each of the sectors was modelled using dynamic thermal modelling software to generate the appropriate annual space heating and cooling loads in each scenario.

Each building was modelled using several climate zones to represent the regions in which Kingspan insulation products are sold. In each instance the analysis compared the space heating and cooling demands of the sample buildings with no insulation to the demands of the same buildings with Kingspan insulation to achieve the U-value performance recommended for the relevant climate zone under the widely used ASHRAE 90.1 standard.

The EPD stated the U-value and thickness of the product being declared, and or the thermal conductivity. This information was used to extrapolate the EPD data to provide a representation of each product achieving the ASHRAE m2 90.1 standard U-values for each climate zone to align with the thermal modelling. The extrapolated results per area were then multiplied by the total areas of the walls, roof or ground for the building types modelled. Carbon dioxide equivalent (CO2e) savings were calculated based on the energy savings modelled for heating and cooling, and information gathered from several sources relating to the CO2e intensity of the dominant heating solution and electricity in each country considered.

Please note*: this independent study was undertaken to demonstrate the estimated lifetime CO2e reduction from insulation products sold in 2022. These savings do not directly correlate to the EU Taxonomy revenue figure below as the Taxonomy criteria has a wider scope of inclusion for climate mitigating products and technologies.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
52

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?
Yes, an acquisition

Name of organization(s) acquired, divested from, or merged with
Kingspan acquired 6 companies of various sizes in 2022. The 3 main ones (based on size and impact) were: Ondura, Derbigum and Troldtekt.

Details of structural change(s), including completion dates
Acquisition dates: Ondura (Q3 2022), Derbigum (Q2 2023), Troldtekt (Q1 2023). Kingspan has financial control of the emitting activities and as such, this will be reflected in the GHG reporting.

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, location-based Scope 2, market-based Scope 3	The "significance threshold" we apply to decide on historic emissions recalculation is 5%. We used the "pro-rata" recalculation methodology for a fixed year as defined by the GHG protocol.	Yes

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
435827

Comment
The figure does not include biogenic emissions. Biogenic emissions are reported separately.

Scope 2 (location-based)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
96676

Comment

Scope 2 (market-based)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
82145

Comment

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
6603178

Comment
Restated figures due to improved data collection & change in calculation methodologies.

Scope 3 category 2: Capital goods

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
37427

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
32736

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
139623

Comment

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
4607

Comment

Scope 3 category 6: Business travel

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
23917

Comment

Scope 3 category 7: Employee commuting

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
20669

Comment

Scope 3 category 8: Upstream leased assets

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
This category is not applicable because Kingspan does not have upstream leased assets.

Scope 3 category 9: Downstream transportation and distribution

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
Reported under category 4 instead of category 9 (in accordance with GHG protocol guidance)

Scope 3 category 10: Processing of sold products

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
Kingspan products do no need processing, so this category is not applicable.

Scope 3 category 11: Use of sold products

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
452094

Comment
Restated figures due to improved data collection & change in calculation methodologies.

Scope 3 category 12: End of life treatment of sold products

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
417220

Comment
Restated figures due to improved data collection & change in calculation methodologies.

Scope 3 category 13: Downstream leased assets

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
Kingspan does not have leased assets, so this scope 3 category is not applicable.

Scope 3 category 14: Franchises

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
Kingspan did not operate any franchises, so scope 3, category 14 is not relevant to our operations.

Scope 3 category 15: Investments

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
According to the GHG protocol, category 15 is designed primarily for private financial institutions (e.g., commercial banks), but is also relevant to public financial institutions (e.g., multilateral development banks, export credit agencies) and other entities with investments not included in scope 1 and scope 2. As a result, it's not relevant for Kingspan.

Scope 3: Other (upstream)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
No other upstream scope 3 emissions are applicable to Kingspan.

Scope 3: Other (downstream)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment
Kingspan does not have scope 3 emissions from other downstream activities.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
340406

Start date
January 1 2022

End date
December 31 2022

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
445186

Start date
January 1 2021

End date
December 31 2021

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
88393

Scope 2, market-based (if applicable)
44750

Start date
January 1 2022

End date
December 31 2022

Comment

Past year 1

Scope 2, location-based
97707

Scope 2, market-based (if applicable)
74390

Start date
January 1 2021

End date
December 31 2021

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions
Only manufacturing , R&D and assembly sites are included in the reporting boundary. Sites excluded (e.g. offices, storage facilities) are not material; emission from these sites are estimated at less than 0.5% of overall scope 1&2 emissions (market-based).

Scope(s) or Scope 3 category(ies)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Relevance of Scope 1 emissions from this source
Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of Scope 3 emissions from this source
<Not Applicable>

Date of completion of acquisition or merger
<Not Applicable>

Estimated percentage of total Scope 1+2 emissions this excluded source represents
1

Estimated percentage of total Scope 3 emissions this excluded source represents
<Not Applicable>

Explain why this source is excluded
Sites excluded (e.g. offices) are not material; emission from these sites are estimated at less than 0.5% of overall scope 1&2 emissions (market-based).

Explain how you estimated the percentage of emissions this excluded source represents
The emissions from offices were estimated based on the number of employees.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
6288115

Emissions calculation methodology
Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
For this category we used a combination of spend-based and supplier specific emission factors (the latter only for some of our key product categories, for which we have more information). The emission factor sources include EPA and the GHG Protocol.

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
81264

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
For this category we used spend-based emission factors. The emission factor sources include EPA and the GHG Protocol. We had to make assumption when categorising our asset types to make sure they match with the emission factor categories available.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
49253

Emissions calculation methodology
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
We calculated this category by using the amount of fuels and electricity consumed during the year and a combination of WTT emission factors (mainly DEFRA).

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
153404

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
According to the GHG Protocol - Guidance document: Outbound transportation and distribution services that are purchased by the reporting company are excluded from category 9 and included in category 4 (Upstream transportation and distribution) because the reporting company purchases the service. Taking this into account, all transport costs (both for upstream and downstream transport) are reported under this category.
We used spend-based emission factors and calculated our emissions based on the amount we spent on transportation costs. The factors were from DEFRA.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
5325

Emissions calculation methodology
Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
We calculated the emissions for waste generated in our operations using the amount of waste generated during the year and waste specific emission factors (mainly DEFRA).

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
54207

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
We used the cost for business travel across our Group for 2022 and then we made assumptions for the breakdown of that cost in different categories (e.g. hotel stays and meals). We then applied relevant factors from the GHG protocol to calculate our emissions for this category.

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
26001

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
We based our calculations for this category on the number of employees. Then we made estimates on the number of commute return trips and the working days and finally we applied the relevant emission factor (DEFRA) for car trips based on the previous assumptions.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Kingspan does not have upstream assets, so this category is not applicable.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
According to the GHG Protocol - Guidance document: Outbound transportation and distribution services that are purchased by the reporting company are excluded from category 9 and included in category 4 (Upstream transportation and distribution) because the reporting company purchases the service. Taking this into account, all transport costs (both for upstream and downstream transport) are reported under C4.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Kingspan products do no need processing, so this category is not applicable.

Use of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
324621

Emissions calculation methodology
Other, please specify (This category includes emissions from blowing agents that are taking place during use. Each blowing agent has a annual loss rate (presented in detail by IPPC), so we use this rate for a 50-year period to calculate the total emissions of our products.)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
For this category we use figures from IPPC to calculate the fugitive emissions from the use of blowing agents that are taking place every year from the use of our products. We then make an assumption for the lifespan of our products, and we apply the relevant annual loss % factors provided by IPPC to calculate the total emission losses for our products sold in 2022 during their lifetime.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
303859

Emissions calculation methodology
Other, please specify (Explained below in the relevant section)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
More than 98% of the emissions of this category are attributed to the end-of-life loss of blowing agents used for our insulation products. The E-o-l percentage is derived from IPPC. The rest of the emissions are from the end of life treatment of sold products. They are estimated based on sold product weights and industry average end-of-life management practices.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Kingspan does not have downstream assets, so this category is not applicable.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not operate franchises, so this scope 3 category is not applicable.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
According to the GHG protocol, category 15 is designed primarily for private financial institutions (e.g., commercial banks), but is also relevant to public financial institutions (e.g., multilateral development banks, export credit agencies) and other entities with investments not included in scope 1 and scope 2. As a result, it's not relevant for Kingspan.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Kingspan does not have scope 3 emissions from other sources.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not have scope 3 emissions from other downstream activities, so this category is not applicable to Kingspan group.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date
January 1 2021

End date
December 31 2021

Scope 3: Purchased goods and services (metric tons CO2e)
7387673

Scope 3: Capital goods (metric tons CO2e)
47971

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
46914

Scope 3: Upstream transportation and distribution (metric tons CO2e)
202559

Scope 3: Waste generated in operations (metric tons CO2e)
7245

Scope 3: Business travel (metric tons CO2e)
31100

Scope 3: Employee commuting (metric tons CO2e)
25410

Scope 3: Upstream leased assets (metric tons CO2e)
0

Scope 3: Downstream transportation and distribution (metric tons CO2e)
0

Scope 3: Processing of sold products (metric tons CO2e)
0

Scope 3: Use of sold products (metric tons CO2e)
484058

Scope 3: End of life treatment of sold products (metric tons CO2e)
455433

Scope 3: Downstream leased assets (metric tons CO2e)
0

Scope 3: Franchises (metric tons CO2e)
0

Scope 3: Investments (metric tons CO2e)
0

Scope 3: Other (upstream) (metric tons CO2e)
0

Scope 3: Other (downstream) (metric tons CO2e)
0

Comment

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	26531	

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.000046

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
342318

Metric denominator
unit total revenue

Metric denominator: Unit total
8330000000

Scope 2 figure used
Market-based

% change from previous year
35.9

Direction of change
Decreased

Reason(s) for change
Change in renewable energy consumption
Other emissions reduction activities

Please explain
The intensity was calculated by dividing the Scope 1 and 2 Emissions for our business, excluding the rebaselined emissions from our 2022 acquisitions. These emissions are related to energy use from acquisitions procured in 2022 - prior to point of ownership - and are excluded as the revenue for this period isn't included in our total revenue figure.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	109835	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	1394	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	298	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	228878	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Ireland	3065.11
United Kingdom of Great Britain and Northern Ireland	14582.951
Australia	724.986
United Arab Emirates	235.127
India	375.974
Turkey	8974.513
Russian Federation	367.165
United States of America	231822.472
Canada	1726.344
Mexico	122.99
Colombia	124.885
Brazil	5742.384
Panama	7696.124
Spain	21590.091
China	2.133
New Zealand	27.757
Uruguay	963.17
Belgium	9012.781
Czechia	662.029
Denmark	905.512
Finland	330.382
France	2095.55
Germany	3925.077
Hungary	479.635
Latvia	14.917
Malaysia	3578.022
Netherlands	7801.516
Norway	239.525
Poland	11360.723
Romania	1037.946
Serbia	467.351
Slovakia	268.081
Sweden	83.179

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Insulated Panels	46226.064
Insulation Boards	254109.387
Water + Energy	5473.7
Light + Air	2359.393
Data + Flooring	2065.974
Roofing + Waterproofing	30171.897

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Ireland	3977.849	54.015
United Kingdom of Great Britain and Northern Ireland	7758.719	63.576
Belgium	3834.379	1438.98
Australia	2226.59	748.84
United Arab Emirates	2385.874	2385.874
India	1160.124	351.226
France	904.069	228.819
Czechia	2064.396	354.407
Poland	20704.627	12024.666
Hungary	525.299	0
Turkey	2839.34	2839.34
Germany	4337.766	3618.619
Finland	832.99	44.846
Romania	754.36	271.801
Russian Federation	190.428	190.428
United States of America	17257.696	11348.185
Canada	510.104	508.376
Mexico	214.291	214.291
Colombia	200.289	200.289
Brazil	1563.656	939.879
Netherlands	4381.73	144.026
Norway	6.954	0
Slovakia	139.027	80.053
Latvia	36.232	22.754
Panama	246.064	246.064
Spain	4352.459	1167.043
Saudi Arabia	3.748	3.748
China	35.189	35.189
New Zealand	155.433	47.737
Uruguay	77.801	77.801
Sweden	177.726	40.264
Denmark	1837.102	3048.972
Serbia	692.298	2.244
Malaysia	2007.938	2007.938

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Insulated Panels	28373.449	8370.767
Insulation Boards	32611.983	11391.207
Water + Energy	2637.78	414.723
Light + Air	4117.826	1379.041
Data + Flooring	3891.696	1468.094
Roofing + Waterproofing	16759.827	21726.468

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Not relevant as we do not have any subsidiaries

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	28000	Decreased	5.4	In 2022, there was a reduction of 28,000 tCO2e in respect of changes in renewable energy consumption. Scope 1 and 2 emissions in the previous year were 519,576 tCO2e (restated 2021 emissions). Therefore the calculation was (-28,000/519,576)*100 =-5.4%. The reduction can be mainly attributed to the switching of non-renewable electricity and fossil fuel contracts to renewable.
Other emissions reduction activities	149609	Decreased	28.8	In 2022, there was a reduction of 149,609 tCO2e due to the implementation of other emissions reduction activities. Scope 1 and 2 emissions in the previous year were 519,576 tCO2e (restated 2021 emissions). Therefore the calculation was (-149,609/519,576)*100 =-28.8%. The reduction can be attributed to various emissions reduction initiatives, but mainly the substitution of process materials -see question 4.3b.
Divestment		<Not Applicable>		
Acquisitions	0	No change	0	Since our organization changed structurally through acquisitions and the resulting change in GHG emission was material, we recalculated our base year emissions. Hence, this category is not applicable.
Mergers		<Not Applicable>		
Change in output	43190	Increased	8.3	In 2022, there was an increase of 43,190 tCO2e in respect of changes in output. Scope 1 and 2 emissions in the previous year were 519,576 tCO2e (restated 2021 emissions). Therefore the calculation was (43,190/519,576)*100 = 8.3%. The increase can be attributed to an increase in demand leading to increased output.
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?
Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?
More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	53109	466439	519548
Consumption of purchased or acquired electricity	<Not Applicable>	210490	79091	289581
Consumption of purchased or acquired heat	<Not Applicable>	5882	3445	9327
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	18068	<Not Applicable>	18068
Total energy consumption	<Not Applicable>	287549	548975	836524

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
22254

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
22254

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
24116

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
24116

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
30856

MWh fuel consumed for self-generation of electricity
7274

MWh fuel consumed for self-generation of heat
18168

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
5413

Comment

Coal

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment

Oil

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
65959

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
65959

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment

Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
336769

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
336769

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
39596

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
39596

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Comment

Total fuel

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
519548

MWh fuel consumed for self-generation of electricity
7274

MWh fuel consumed for self-generation of heat
506862

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
5413

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	35430	22284	35430	22284
Heat	36890	36890	23650	23650
Steam	0	0	0	0
Cooling	0	0	0	0

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption
Australia

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
2147.67

Tracking instrument used
Australian LGC

Country/area of origin (generation) of the low-carbon energy or energy attribute
Australia

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Belgium

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
12830.56

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Brazil

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
6678.56

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Brazil

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Canada

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier) from a grid that is 95% or more low-carbon and where there is no mechanism for specifically allocating low-carbon electricity

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
1399.83

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Canada

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Czechia

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
4189.09

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Czechia

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Denmark

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
8946.03

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Finland

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
7098.03

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Finland

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
France

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
11647.37

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
France

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Germany

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
8296.39

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Germany

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Hungary

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
2577.52

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Hungary

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Ireland

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
13248.34

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Ireland

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Latvia

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
94.1

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Latvia

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Netherlands

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
14958.46

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Netherlands

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
New Zealand

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
830.99

Tracking instrument used
NZREC

Country/area of origin (generation) of the low-carbon energy or energy attribute
New Zealand

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Norway

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
939.84

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Norway

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Poland

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
21325.58

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Poland

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Romania

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
1787.1

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Romania

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Serbia

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
899.56

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Serbia

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Slovakia

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
158.99

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Slovakia

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Spain

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
25013.49

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Spain

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Sweden

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
5262.33

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
Sweden

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
39940.58

Tracking instrument used
GO

Country/area of origin (generation) of the low-carbon energy or energy attribute
United Kingdom of Great Britain and Northern Ireland

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
United States of America

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
20219.59

Tracking instrument used
US-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Denmark

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Heat

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
3012.48

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Finland

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Heat

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
1739.35

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Finland

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Germany

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Heat

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
661.93

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Germany

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Sweden

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Heat

Low-carbon technology type
Renewable energy mix, please specify (Kingspan doesn't have visibility of the specific renewable energy mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
468.6

Tracking instrument used
Other, please specify (Good Enviromental Choice)

Country/area of origin (generation) of the low-carbon energy or energy attribute
Sweden

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Australia

Consumption of purchased electricity (MWh)
3191

Consumption of self-generated electricity (MWh)
692

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
3883

Country/area
Belgium

Consumption of purchased electricity (MWh)
18938

Consumption of self-generated electricity (MWh)
2034

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
20972

Country/area
Brazil

Consumption of purchased electricity (MWh)
15382

Consumption of self-generated electricity (MWh)
1089

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
16471

Country/area
Canada

Consumption of purchased electricity (MWh)
6178

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
6178

Country/area
China

Consumption of purchased electricity (MWh)
57

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
57

Country/area
Colombia

Consumption of purchased electricity (MWh)
869

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
869

Country/area
Czechia

Consumption of purchased electricity (MWh)
4189

Consumption of self-generated electricity (MWh)
103

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
2076

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
6368

Country/area
Denmark

Consumption of purchased electricity (MWh)
11074

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
3090

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
14164

Country/area
Finland

Consumption of purchased electricity (MWh)
7098

Consumption of self-generated electricity (MWh)
448

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
2002

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
9548

Country/area
France

Consumption of purchased electricity (MWh)

13992

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
13992

Country/area
Germany

Consumption of purchased electricity (MWh)
9667

Consumption of self-generated electricity (MWh)
7

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
662

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
10336

Country/area
Hungary

Consumption of purchased electricity (MWh)
2578

Consumption of self-generated electricity (MWh)
264

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
2842

Country/area
India

Consumption of purchased electricity (MWh)
1674

Consumption of self-generated electricity (MWh)
198

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1872

Country/area
Ireland

Consumption of purchased electricity (MWh)
13343

Consumption of self-generated electricity (MWh)
477

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
13820

Country/area
Latvia

Consumption of purchased electricity (MWh)
169

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
169

Country/area
Malaysia

Consumption of purchased electricity (MWh)
543

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
543

Country/area
Mexico

Consumption of purchased electricity (MWh)
538

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
538

Country/area
Netherlands

Consumption of purchased electricity (MWh)
15278

Consumption of self-generated electricity (MWh)
2292

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
17570

Country/area
New Zealand

Consumption of purchased electricity (MWh)
1199

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1199

Country/area
Norway

Consumption of purchased electricity (MWh)
940

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
940

Country/area
Panama

Consumption of purchased electricity (MWh)
743

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
743

Country/area
Poland

Consumption of purchased electricity (MWh)
25082

Consumption of self-generated electricity (MWh)
102

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
820

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
26004

Country/area
Romania

Consumption of purchased electricity (MWh)
2752

Consumption of self-generated electricity (MWh)
413

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
3165

Country/area
Russian Federation

Consumption of purchased electricity (MWh)
529

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
529

Country/area
Saudi Arabia

Consumption of purchased electricity (MWh)
6

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
6

Country/area
Serbia

Consumption of purchased electricity (MWh)
902

Consumption of self-generated electricity (MWh)
73

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
975

Country/area
Slovakia

Consumption of purchased electricity (MWh)

593

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
593

Country/area
Spain

Consumption of purchased electricity (MWh)
25856

Consumption of self-generated electricity (MWh)
467

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
26323

Country/area
Sweden

Consumption of purchased electricity (MWh)
5262

Consumption of self-generated electricity (MWh)
1153

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
677

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
7092

Country/area
Turkey

Consumption of purchased electricity (MWh)
2254

Consumption of self-generated electricity (MWh)
5

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
2259

Country/area
United Arab Emirates

Consumption of purchased electricity (MWh)
4514

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
4514

Country/area
United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)
40122

Consumption of self-generated electricity (MWh)
7269

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
47391

Country/area
United States of America

Consumption of purchased electricity (MWh)
52137

Consumption of self-generated electricity (MWh)
981

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
53118

Country/area
Uruguay

Consumption of purchased electricity (MWh)
1931

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1931

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Other, please specify (Non-HFC process emissions)

Metric value
10499

Metric numerator
tCO2e

Metric denominator (intensity metric only)

% change from previous year
28.5

Direction of change
Increased

Please explain

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
LRQA assurance statement_160223.pdf

Page/ section reference
Page 3, table 1. Summary of Kingspan's Assertion for CY 2022.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
LRQA assurance statement_160223.pdf

Page/ section reference
Table 1: Summary of Kingspan's Assertion for CY 2022. Page 3

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
LRQA assurance statement_160223.pdf

Page/ section reference
Page 3 of 4. Table 1: Summary of Kingspan's Assertion for CY 2022, row 4.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting
Scope 3: Use of sold products
Scope 3: End-of-life treatment of sold products

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
LRQA assurance statement_160223.pdf

Page/section reference
Table 1: Summary of Kingspan's Assertion for CY 2022 on page 3 out of 4.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we are waiting for more mature verification standards and/or processes

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price
Other, please specify (Charge as an overhead)

How the price is determined
Cost of required measures to achieve emissions reduction targets
Price with material impact on business decisions

Objective(s) for implementing this internal carbon price
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

Scope(s) covered
Scope 1
Scope 2

Pricing approach used – spatial variance
Uniform

Pricing approach used – temporal variance
Evolutionary

Indicate how you expect the price to change over time
We will be examining the level of the carbon charge on an annual basis to make sure that it reflects all latest developments in the climate change discourse and that it keeps playing a material role in our business decisions and decarbonisation strategy.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)
70

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)
70

Business decision-making processes this internal carbon price is applied to
Capital expenditure
Operations
Remuneration

Mandatory enforcement of this internal carbon price within these business decision-making processes
Yes, for all decision-making processes

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan
Starting January 1st 2023, each operating business unit will be charged €70/tonne for each ton of CO2e that was emitted by their business during the year. The charge will be included in the business P&L accounts, directly affecting business profitability and management remuneration.
The decision to implement a carbon charge was made to help manage the risk of future rising energy costs or carbon fines/charges and to foster operational conversion to more efficient, lower carbon methods of manufacturing.
As a direct result of the decision to apply a carbon charge, projects which had previously not been given the green-light for not meeting the necessary returns hurdle, are now being reconsidered. For example, in 2022, one of our facilities in the US switched from non-renewable electricity to a green renewable product; one of the challenges to sourcing renewable electricity in that market is highly prices. Even though it was more expensive to do so, by considering the carbon price charge that is going to be introduced, it then made financial sense to make the switch.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Innovation & collaboration (changing markets)

Details of engagement
Invest jointly with suppliers in R&D of relevant low-carbon technologies

% of suppliers by number
8.1

% total procurement spend (direct and indirect)
51

% of supplier-related Scope 3 emissions as reported in C6.5
38

Rationale for the coverage of your engagement
Kingspan's purchased goods and services (category 1) account for over 80% of its total value chain GHG emission footprint in 2022. To address upstream scope 3 GHG emissions, Kingspan has made two public commitments:
• Verified Science Based Scope 3 Target: 42% reduction in scope 3 emissions by 2030 from a 2020 baseline)
• Planet Passionate target: 50% CO2 intensity reduction in products from primary supply partners by 2030 from a 2020 baseline.

Suppliers are a critical partner in Kingspan's value chain and significantly impact our ability to deliver on our targets and climate change mitigation strategies. Failure to engage with our suppliers and actively work towards reducing upstream carbon emissions could negatively impact customer preferences in the future. To significantly reduce our scope 3 GHG emissions footprint by 2030, Kingspan needs to:

(1) To able to purchase volume supply of key raw materials with significantly lower embodied carbon that what is currently available on the market
(2) deliver the equivalent or better in terms of product performance (lower embodied carbon that maintains or improves the technical performance requirements of a given product)

Achieving the above both require innovation and collaboration between and by Kingspan and its suppliers. For innovation and collaboration projects, we prioritise suppliers who make up 80% of our scope 3 emissions with particular focus on the raw material categories that represent the most significant proportion of our emissions and that are raw materials for our key product groups. This category mainly comprises of tier 1 raw material suppliers. Our innovation and collaboration engagement activities including decarbonisation trajectory reviews and feedback, new product development projects and where appropriate, investment to accelerate decarbonisation agenda.

Impact of engagement, including measures of success
Impact of engagement: we have seen multiple benefits from our innovation and collaboration efforts with our key suppliers.
Collaboration:
Supplier forum: Kingspan holds an annual supplier forum with specific focus given to our sustainability programme. Discussions & workshops are held with a range of suppliers to brainstorm ideas and actions that can help to deliver our supply chain targets. In 2022 our goal was to hold the event in person at our Innovation Centre in Ireland and bring a new mix of strategically important suppliers together who are at different stages of their decarbonisation journey. Measure of success: In November 2022 we held our annual forum in person with number of key suppliers represented. Productive discussions & workshops were held throughout the day with a range of suppliers resulting in some collaborative projects that will support the delivery of our supply chain targets.

New product development: Kingspan aims to bring lower embodied carbon variants of its key products to market as soon as technically feasible.
Threshold for measure of success: threshold goal set for launching at least one new product into the market within the first 3 years of the programme (2020-2023). To achieve this target, Kingspan explored multiple alternative lower embodied carbon materials and supplier options throughout 2020 & 2021 as part of its supply chain decarbonisation trajectory development. A key result from this work was a collaborative project with an existing supplier to obtain lower embodied carbon steel supply for the development of a lower embodied carbon insulated panel product. This collaboration enabled us to successfully launch a QuadCore lower embodied carbon (LEC) insulated panel into the UK and Irish markets. The LEC insulated panel has 21% less embodied carbon across lifecycle stages A -C.
Innovation: In 2021 Kingspan made investments in H2 Green Steel (H2GS). H2GS aims to reduce the carbon impact of the steel production process by 95% when it begins production in 2026. In 2022 Kingspan increased its shareholding in H2GS with a further investment and are committing to a future supply relationship. The investments have become a strong signal to our existing suppliers of our commitment to procuring lower carbon raw materials at scale to achieve our targets and deliver a lower embodied carbon product offering to our customers.

Comment

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Collect GHG emissions data at least annually from suppliers
Collect targets information at least annually from suppliers

% of suppliers by number
8.1

% total procurement spend (direct and indirect)
51

% of supplier-related Scope 3 emissions as reported in C6.5
38

Rationale for the coverage of your engagement
Kingspan believes all suppliers should have a climate change mitigation strategy as part of their performance objectives, including GHG emissions reduction targets in line with climate science. Kingspan's purchased goods and services (category 1) account for over 80% of its total value chain GHG emission footprint. To address upstream GHG emissions, Kingspan has made two public commitments:
- Verified Science Based Scope 3 Target: 42% reduction in scope 3 emissions by 2030 from a 2020 baseline)
- Planet Passionate target: 50% C02 intensity reduction in products from primary supply partners by 2030 from a 2020 baseline.

Suppliers are a critical partner in Kingspan's value chain & significantly impact our ability to deliver on our targets and climate change mitigation strategies. Failure to engage with our suppliers and actively work to reduce upstream emissions could negatively impact customer preferences in the future. To measure & track progress, we must be able to capture & analyse supplier information. We actively engage with key suppliers to obtain annual datasets & decarbonisation strategies. Taking these actions, enables Kingspan to monitor progress towards its targets & adjust strategies accordingly. Supplier engagement is generally prioritised by magnitude of expenditure. Kingspan's focus is on its key suppliers who make up over 80% of our total spend & 80% of scope 3 emissions. This threshold was determined based on our annual scope 3 GHG emissions calculations and is reviewed annually. We give particular focus to critical suppliers as they cover the key raw material groups for key products which make up the largest proportion of our group revenue. This category mainly comprises of tier 1 raw material suppliers. We collect information via:
(1) Meetings: our strategy involves cross functional working relationships between our procurement & sustainability functions, along with support from the senior management teams as required. Our teams have bi-weekly progress reviews (reviewing supplier data, target trajectory mapping etc) & quarterly reviews with the senior management team.
(2) Supplier ratings: EcoVadis: Kingspan subscribes to EcoVadis to help with monitor & track supplier's ESG performance over time, promote transparency, reduce risk, and identify areas for improvement.

Impact of engagement, including measures of success
Impact of engagement: we have seen multiple benefits from our supplier engagement activities including better understanding an oversight of our upstream GHG emissions and strengthened relationships with our key suppliers.

Better understanding oversight over upstream GHG emissions:
through our information collection efforts, we now have a more granular understanding of most material carbon impacts of our key raw materials and how the impact can vary from supplier to supplier and geographic location. This enables us to further develop our decarbonisation trajectory mapping and our ability to meet our 2030 targets.

We have found that our suppliers are at different stages of their carbon reporting and target setting journey. Kingspan has actively worked with these suppliers to explain why reporting this information is important for their customers to track their progress towards emissions reduction goals. In 2022 we began onboarding our key suppliers to the EcoVadis ESG rating platform. Our threshold target for onboarding of suppliers in 2022 was a minimum of 25% of supplier base by group spend.

Threshold for measure of success: By the end of 2022 we received ESG scorecards for 41% of our supplier base by group spend and are actively working to continually increase coverage. We believe this has been successful engagement as more suppliers have now committed to completing the EcoVadis assessment in 2023. This information enables Kingspan to make more informed decisions based by our ability to develop embodied carbon targets for key raw material categories that we want to achieve to help us reach our targets (i.e. if we can purchase steel that has X% less embodied carbon, that would enable us to reduce scope 3 emissions by X%)

Strengthened our relationships with key suppliers: Stronger business relationships across geographical regions have been formed with ongoing bi-weekly dialogue between Procurement & Sustainability teams along with discussion at CEO level. We are also now working collaboratively with some key suppliers to develop lower embodied carbon variants of existing products based on shared decarbonisation goals.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number
65

% of customer - related Scope 3 emissions as reported in C6.5
0

Please explain the rationale for selecting this group of customers and scope of engagement
Kingspan product offering is centred around providing solutions that enable resource efficiency and often result in energy and carbon savings from products such as insulation. As our products do not use energy in use, we do not report customer related emissions within in our scope 3 inventory. However, we still work to educate and inform customers about how our products can help to reduce the whole life operational (via reduce energy use from use of insulation) and embodied carbon impact).) of their buildings.

Our target customer audience for this type of education includes but is not limited to design teams, building owners and developers. The rationale for educating these customers is that they are actively involved in the design, development and procurement of new and existing buildings and therefore can directly impact the sustainable development of the built environment. This should ultimately help to mitigate the impacts of climate change associated to the built environment. The scope of our educational initiatives are delivered by the sales, sustainability and technical teams with different levels of coverage (estimated at 65%) across the 5 global divisions through multiple mediums include continued professional development (CPD) presentations, industry conferences, literature, reporting, website and our ESG commitments.

Impact of engagement, including measures of success
Impact of engagement: through this engagement we believe we are helping to support our customers in the design of lower whole life carbon buildings. We have seen a significant increase in interest in the decarbonisation agenda from the design and end client community in the last year. This has led to an increased demand for product environmental product declarations (EPDs). This information helps to inform customers of the environment impacts of our products. EPD's also contribute towards points in all major environmental assessment methods and rating systems including BREEAM, LEED, GreenStar, HQE, the WELL Standard and the Living Building Challenge. Energy and carbon emissions are covered in depth in most of these rating systems. Kingspan's engagement with customers helps them to better understand how best to utilise their solutions and how they can achieve enhanced green building ratings for their building projects

How we measure success: We seek to create differentiation in the marketplace through increased customer awareness related to Kingspan's independently verified EN 15804 environmental product declarations (EPD's) across the global business. Threshold: provide environmental product declarations for products in at least 3 divisions by end of 2022.

The increased demand for product EPD information informs our EPD development programmes across the divisions. We seek to promptly respond to customer demand for new EPDs. A positive outcome of the programme in 2022 was that we were able to increase our EPD product coverage to products groups across three (insulation, insulated panels and raised access floors) of our five divisions by the end of 2022, with all five divisions expected to have some EPDs by end of 2023.

Project example of where EPDs provide value to customers: BREEAM rated buildings: Multiple Kingspan products were used on a BREEAM 'Outstanding' rated project at Chatterley Valley, Staffordshire, UK. The project utilised multiple Kingspan products on the distribution centre and office buildings and helps to demonstrate the business case for going beyond building regulations backstop U values. Certified buildings like this help to increase awareness and set precedent for building beyond building code and will help to achieve our collective industry goal of net zero carbon buildings globally by 2050.

Type of engagement & Details of engagement

Other, please specify	Other, please specify (Ongoing educational updates)

% of customers by number
65

% of customer - related Scope 3 emissions as reported in C6.5
0

Please explain the rationale for selecting this group of customers and scope of engagement
Kingspan's product offering is centered around providing solutions that enable resource efficiency and often result in energy and carbon savings from products such as insulation. As our products do not use energy in use, we do not report customer related emissions within in our scope 3 inventory. However, we still work to encourage our customers to help reduce the climate change impacts associated with the built environment through use of our products/services.

Kingspan provides ongoing educational updates to its customers to ensure they are informed about our latest product innovations and how they can help them to deliver

more energy efficient buildings. Its target customer audience for this type of education includes but is not limited to design teams, building owners, developers and contractors. The rationale for providing ongoing educational information to these customers is that they are actively involved in the design, development and construction/refurbishment of new and existing buildings and therefore are in a position to directly impact the sustainable development of the built environment.

The scope of our engagement is delivered by the sales, sustainability, field services and technical teams with different levels of coverage (estimated at 65%) across the 5 global divisions through multiple mediums including formal campaigns, industry conferences, product and installation training, technical updates, calls for partnerships and informal opportunities to reduce negative impacts.

Impact of engagement, including measures of success

Impact of engagement : Kingspan works with selected design teams, building owners, developers and contractors to provide services such as building energy modelling, embodied carbon analysis, product/ installation training and technical updates to help create energy efficient buildings. We regularly run professional accredited (such as RIBA, RIAI, CIBSE and Engineers Ireland) continued professional development presentation programs to educate our partners on climate related issues and how are solutions can help to create sustainable low carbon buildings. We generally prioritise engagement based on the strength of the business case benefit to Kingspan and our partners.

How we measure success: A successful outcome of our climate related engagement strategy includes increased dialogue and stronger collaborative relationships with our key customers who have specific company level carbon emissions reduction goals for their construction projects. We are working closely with several of our key clients to develop solutions to help reduce the operational and embodied carbon of their buildings. We are also exploring product innovation opportunities together to support our clients to achieve their long-term objectives. In 2022, as outlined in opportunity 6, we strengthen our working relationship with a global developer customer by demonstrating the whole life carbon benefits of utilising multiple Kingspan solutions holistically for a specific project . This led to an engagement request for an additional project which we are now also supporting.

Threshold: develop a multi-geographic working relationship with at least one global client who has similar strategic decarbonisation ambitions .
Example: A positive outcome of our climate related engagement strategy with customers has been the successful ongoing growth of the business at a compound annual revenue growth rate of 10.5% over the past five years.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

Attached our Planet Passionate report 2022
Kingspan_PP Report_22_final.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

The focus of the Kingspan Group businesses is such that the 'direction of travel' with respect to climate change strategy is critically important to the Group and this is implemented as a key part of the annual strategic planning process at both Group and divisional level. Reporting on progress and plans to deliver our all Planet Passionate targets are a mandatory part of strategic planning on an annual basis. Since the approach to climate change is integrated into the overall business plan, even down to the asset level, the objectives are consistently reviewed by all management teams. Indeed, the strategic alignment of the divisions around a central statement is regularly checked. The company seeks to use its own facilities as exemplars of what can and should be done elsewhere. The culture is to be sure to 'walk the talk'. However, when evaluating solutions, whether for internal use or for the wider market, the company recognises that solutions are situation-specific and therefore seeks to promote a range of solutions, without pre-judging the outcome. That said, the overall view is that efforts to reduce energy demand/intensity (e.g. energy efficiency) should come first, before efforts are made to deliver the remaining energy requirement from low-carbon sources. Specific strategies for the reduction of the carbon footprint of the Group via the planet Passionate programme and our science-based targets are fully coordinated at Group level through quarterly meetings involving representatives from all divisions representing every site across the globe.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Energy Performance of Buildings Directive (EPBD) review

Category of policy, law, or regulation that may impact the climate
Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate
Other, please specify (Energy efficiency of buildings will save fossil fuels, emissions and will increase health of occupants)

Policy, law, or regulation geographic coverage
Regional

Country/area/region the policy, law, or regulation applies to
EU27

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
Advocacy through EuroACE, Renivate Europe Campaign and Europe Alliance to Save Energy. Meeting politicians with those groups.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
Over 80% of Kingspan's emissions are from Scope 3 purchased goods and services. Therefore a reduction in the embodied carbon of our purchased goods and services is central to our transition plan. Critically, our suppliers will have to invest significantly to upgrade their facilities to enable renewable energy. Policies which support this investment are central to our transition plan. For example, the EPBD is set to address carbon emissions over the full lifecycle of a business, which will include carbon emissions. This should create the demand to enable the transition of our supply chain to low carbon alternatives, thereby helping Kingspan to reduce our Scope 3 emissions.

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Energy Efficiency Directive (EED) review

Category of policy, law, or regulation that may impact the climate
Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate
Other, please specify (Energy efficiency will save fossil fuels, reduce CO2 emissions)

Policy, law, or regulation geographic coverage
Regional

Country/area/region the policy, law, or regulation applies to
EU27

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
Advocacy through Europe Alliance to Save Energy. Meeting politicians with those groups.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
This policy is not central to the achievement of our climate transition plan. However this directive is very support for the realisation of some of the opportunities identified in section C2.4a.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (World Green Building Council (WGBC))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
Their position is: "The World Green Building Council (WorldGBC) catalyses the uptake of sustainable and decarbonised built environments for everyone, everywhere. We work with businesses, organisations and governments to deliver on the ambitions of the Paris Agreement and UN Global Goals for Sustainable Development.
Through a systems change approach, we challenge business as usual, stimulate market change and champion best practice to deliver on the 2030 decarbonisation and sustainability goals for our sector."

In 2022, they published a study called "Climate Change Resilience in the Built Environment" supporting a global transition towards infrastructure solutions which focus on people.
Kingspan is a official programme partner of WorldGBC's "Advancing Net Zero", which is a global programme that works with national Green Building Councils to develop tools and resources to build industry capacity to deliver net-zero carbon buildings.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (EuroACE)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The mission of EuroACE is to work together with the EU institutions to help Europe move towards a more efficient use of energy in buildings, thereby contributing to Europe's commitments on climate change, energy security and economic growth.
One example of their attempts to influence policy, was their position paper on EU Energy Performance Buildings Directive (EPBD) - available on their website. In it, they maintained that the EPBD fails to match the ambition level needed to answer the current energy crisis and put the EU on a path to achieve its energy and climate goals.
Kingpsan active contributes to EuroACE and publicly promotes the organization's position.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (EU-ASE)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
EU-ASE mention on their website: "The European Alliance to Save Energy (EU-ASE) is known to be a leading business voice in a growing, diverse and increasingly well-organised energy efficiency community in Brussels. Since our foundation in 2010, we have helped put energy efficiency high on the agenda of EU decision makers. Together with other Brussels-based and national stakeholders we developed and promoted the Energy Efficiency First (EE1) principle, which is now a concept used across all the EU institutions and was recently introduced in the European legislative framework. We are convinced that through prompt implementation of EU legislation, together with suitable public and private financing, energy efficiency can play a much bigger role in the transition towards a decarbonised Europe."
Example of attempt to influence policy: In October 2022, EU-ASE sent an open letter to - among others- the European Commissioner for Energy, advocating for the "Energy Efficiency First" principle.
One of their points in that letter (available on their website) is that focusing on efficiency not only cuts down energy needs and costs, it is also key in the global path to achieving climate neutrality. According to the International Energy Agency, doubling the current rate of energy intensity improvements to 4% a year has the potential to avoid 95 exajoules of final energy consumption by the end of the 2020 decade. This level of energy savings would reduce global CO2 emissions by 5 billion tonnes by 2030.
Kingspan is a board member and thus publicly supports their position.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (ASHRAE)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
ASHRAE is s a global society advancing human well-being through sustainable technology for the built environment. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry.
Example of initiative to influence policy: In 2022, they wrote a letter to Congress (available on their website) regarding buildings in Climate and Energy Bill, in which they urge Congress to include buildings in any legislation to promote clean energy.
Kingspan is an active member and endorses their position.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (Business Council for Sustainable Energy (BCSE))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
As part of their Climate Advocacy, BCSE calls for continued and increased political action to address climate change, both at home and abroad. The coalition advocates for deploying existing technology solutions to meet emission reduction goals and enhance resilience against increasing climate impacts.
Example of initiative to influence policy: BCSE Congressional Letter on FY23 SFOPS Appropriations. In this 2022 letter BCSE is advocating for robust funding for clean energy programsacross the federal government in the FY2023 budget. As Congress works to finalize the FY2023 appropriations package, BCSE urges them to include funding to support domestic clean energy and energy efficiency programs and to bolster overall levels of foreign assistance and international climate programs.
Kingspan actively supports BCSE's position.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In voluntary sustainability report

Status
Complete

Attach the document
Kingspan_PP Report_22_final.pdf

Page/Section reference
Pages 2-62.

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Business Ambition for 1.5C	Kingspan is a campaign member of the Business Ambition for 1.5°C.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	No, but we plan to have both within the next two years	<Not Applicable>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	Please select

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	CEO	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	8300000000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
Kesko Corporation

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Facility

Allocation level detail
We tracked the quantities purchased by Kesko Corporation in 2022 to 5 of our sites and we used the total m3 produced by these sites to allocate the scope 1 emissions.

Emissions in metric tonnes of CO2e
31

Uncertainty (±%)
10

Major sources of emissions
Stationary combustion for production processes.

Verified
No

Allocation method

Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member
5065390

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All relevant GHG sources are included in the boundary. Figures were based on spend data that was sent to us by Kesko Corporation.

Requesting member
Kesko Corporation

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Facility

Allocation level detail
We tracked the quantities purchased by Kesko Corporation in 2022 to 5 of our sites and we used the total m3 produced by these sites to allocate the scope 2 emissions.

Emissions in metric tonnes of CO2e
7

Uncertainty (±%)
10

Major sources of emissions
Electricity and district heating.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member
5065390

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All relevant GHG sources are included in the boundary. Figures were based on spend data that was sent to us by Kesko Corporation.

Requesting member
Kesko Corporation

Scope of emissions
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Facility

Allocation level detail
We tracked the quantities purchased by Kesko Corporation in 2022 to 5 of our sites and we used the total m3 produced by these sites to allocate the scope 2 emissions.

Emissions in metric tonnes of CO2e
74

Uncertainty (±%)
10

Major sources of emissions
Electricity and district heating.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member
5065390

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All relevant GHG sources are included in the boundary. Figures were based on spend data that was sent to us by Kesko Corporation.

Requesting member
Lowe's Companies, Inc.

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Facility

Allocation level detail
We tracked the quantities purchased by LOWE's in 2022 to 1 of our sites and we used the total m3 produced by the sites to allocate the scope 1 emissions.

Emissions in metric tonnes of CO2e
45272

Uncertainty (±%)
10

Major sources of emissions
Fugitive emissions from use of blowing agents and stationary combustion.

Verified
No

Allocation method
Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member
21500000

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All relevant GHG sources are included in the boundary. Figures were based on spend data that was sent to us by LOWE's and then tracked to site-level production data.

Requesting member
Lowe's Companies, Inc.

Scope of emissions
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Facility

Allocation level detail
We tracked the quantities purchased by LOWE's in 2022 to 1 of our sites and we used the total m3 produced by the sites to allocate the scope 2 emissions.

Emissions in metric tonnes of CO2e
1346

Uncertainty (±%)
10

Major sources of emissions
Electricity consumption

Verified
No

Allocation method
Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member
21500000

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All relevant GHG sources are included in the boundary. Figures were based on spend data that was sent to us by LOWE's and then tracked to site-level production data.

Requesting member
Lowe's Companies, Inc.

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Facility

Allocation level detail
We tracked the quantities purchased by LOWE's in 2022 to 1 of our sites and we used the total m3 produced by the sites to allocate the scope 2 emissions.

Emissions in metric tonnes of CO2e
583

Uncertainty (±%)
10

Major sources of emissions
Electricity consumption

Verified
No

Allocation method
Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member
21500000

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All relevant GHG sources are included in the boundary. Figures were based on spend data that was sent to us by LOWE's and then tracked to site-level production data.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Many Kingspan sites manufacture a wide variety of products, a fact that presents us with challenges in data collation and emissions allocation. In addition, it is challenging to translate spend data from customer requests to quantity data at the site level due to the complexity of the accounting approaches across our operations. Receiving more detailed requests that include volume data by site of origin and type of product would help us collate more accurate information in a more efficient manner.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We're at the early stages of our journey and we're in the process of identifying efficient ways to improve our capabilities to allocate emissions to our customers.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
No, I am not providing data

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below
I have read and accept the applicable Terms