

Welcome to your CDP Climate Change Questionnaire 2021

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. Almost 60% of Kingspan's revenue in 2020 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 70 countries with 166 manufacturing sites employing over 15,500 globally. Kingspan has five operating divisions: Insulated Panels (64%), Insulation Boards (17%), Light and Air (10%), Data and Flooring (5%), Water and Energy (4%) In 2020, Kingspan's turnover decreased by 2% to €4.6 billion in the face of rolling lockdowns causing business and market disruption.

Kingspan's strategic vision is to become the world's leading provider of low energy building solutions based on a strategy of using a building envelope first approach. As part of this strategy, Kingspan is focusing on innovation in the high-performance building insulation sector as well as the development of market-leading on-site energy generation and water management systems. To support our innovation led strategy and to drive continuous improvement in process and products, Kingspan invests broadly 1% of revenue annually (€33.1m in 2020) 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. 2019 was a landmark year for Kingspan's commitment to innovation, with the completion of IKON, its new Global Innovation Centre in Ireland. The IKON™ will bridge business divisions and geographic regions and continue to drive Kingspan's position as market leader in sustainable and energy efficient building solutions. It has been built to LEED Gold Standard and is a showcase for Kingspan products and systems. Significant research activities going on in this state-of-the-art facility include the development of a new fibre-free A1 AlphaCore® insulation board, the next generation of our market leading QuadCore™ insulated panels and Kooltherm® insulation boards, and a revolutionary new integrated solar PV panel, all designed to help its customers efficiently reduce energy costs and the environmental footprint of their businesses.

Kingspan recognises the significance of climate change to global society and the central importance of addressing the built environment as part of efforts to mitigate greenhouse gas emissions. Today, the construction and operation of buildings together account for 36% of global energy use and 39% of energy-related CO₂ emissions when upstream power generation is included. As a growing number of countries pass new regulations in favour of more energy efficient buildings, it has encouraged the use of innovative construction solutions for new buildings and increased insulation standards for renovation projects.

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 products is insignificant relative to the impact of carbon saved through their use. For example, we estimate that Kingspan insulation products sold in 2020, will save 716 million MWh of energy and 164 million tCO₂e over their lifetime, which compares to 5.3 million tCO₂e of Scope 1, 2 and 3 emissions emitted due to their manufacture. However, we recognise the need to minimise the carbon emitted due to the manufacture our products and 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 new 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 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 SDG's. Kingspan is an active member of the RE100, signatory to the Task Force on Climate-related Financial Disclosures (TCFD) and the World GBC's Net Zero Carbon Buildings Commitment. The commitment challenges industry to achieve net zero operational carbon in all new buildings by 2030, and all buildings by 2050.

In summary, the climate change agenda is at the heart of Kingspan's vision and activities. However, the company recognises that these same measures will also pay dividends for its customer base in terms of cost savings and energy security, thereby underpinning the current business strategy.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2020	December 31, 2020	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Australia

Belgium
Brazil
Canada
China
Colombia
Czechia
Finland
France
Germany
Hungary
India
Iran (Islamic Republic of)
Ireland
Latvia
Mexico
Netherlands
Norway
Panama
Poland
Romania
Russian Federation
Saudi Arabia
Slovakia
Spain
Turkey
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America

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

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(s)	Please explain
Chief Executive Officer (CEO)	Kingspan Group Chief Executive Officer is the individual on the board responsible for climate related issues. This responsibility has been embedded at the top of the chain of command to ensure climate related issues are considered when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets, business plans and assessing progress against goals and targets for addressing climate-related issues.
Other C-Suite Officer	The CEO is supported in this role by the PLC Executive Directors who are responsible for ensuring that climate related issues are monitored at divisional level and that any significant issues are reported back to the board at the bi-monthly board meetings. Monitoring is carried out at overall divisional level by the Health and Safety and Planet Passionate committees. The responsibility for climate related issues extends to the PLC Executive Directors (and beyond) to ensure that climate related issues are identified, managed and escalated accordingly.

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	Please explain
Scheduled – some meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p>	Climate related issues can be escalated to board level at any of the bi-monthly meetings, should the need arise. Irrespective of this provision, the subject is presented and discussed at board level several times a year through the governance mechanisms provided in the previous column. Please see three such

	<p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>examples below.</p> <p>Examples of how the chosen governance mechanisms are implemented:</p> <p>Reviewing and guiding business plans: Kingspan hosts a full strategic review of the business annually. This review includes all aspects of the business and long-term strategic decisions are made which include any climate change risks or opportunities. The outcomes of that strategic review are presented to the board for review at the subsequent board meeting.</p> <p>Reviewing and guiding risk management policies: Annually, in the fourth quarter, we ask each business to consider all material business risks and the processes in place to manage those risks. Each risk is assessed for its probability and impact. Environmental and climate change risks are assessed as part of this exercise. These risks are subsequently considered at the November Audit Committee meeting each year with a summary provided to the Kingspan board at its December meeting.</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues: Through its Planet Passionate (PP) programme, Kingspan has committed to ambitious energy and carbon targets with the aim of achieving net zero carbon manufacturing by 2030. This programme following on from Kingspan's Net Zero Energy target which aims to match 100% of operational energy with renewable energy generation and the purchase of renewable energy certificates. We achieved this goal in 2020.</p> <p>This agenda is managed by the Group Head of Sustainability and driven by the Global Planet Passionate Team, which has senior operational representatives from each division. The PP Team is responsible for managing our energy needs by improving energy efficiency, generating renewable energy or sourcing renewable energy - thus helping to reduce our overall carbon intensity. The Group Head of Sustainability reports to the board annually.</p>
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		The Planet Passionate objectives are now incorporated into the Performance Share Plan and will be reviewed annually by the Remuneration Committee of the Plc Board.
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C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify Managing Directors	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Kingspan Group Head of Innovation	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Kingspan Group Head of Sustainability	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

CEO: Ultimately the responsibility of climate related issues falls to Kingspan's CEO. Climate related issues are not considered on a stand-alone basis, they are fully integrated into the business model and strategy of the Group. Almost 60% of Kingspan's product set comes from products which are directly related to resource efficiency, predominantly products which contribute significantly to energy and carbon savings in the built environment. The CEO is the most senior person in the organisation and therefore responsible for driving the business to convert opportunities as they relate to climate change but to also be cognisant of any underlying and emerging risks.

Kingspan is presently broken in to ten operating businesses. Each of these operating businesses are reviewed monthly by the senior management teams across each division, with at least two executive directors, including the CEO. These senior teams have representatives including managing directors, finance, technical, operational and commercial directors. Therefore, there is representation from all aspects of the business. At these business reviews,

risks and opportunities that are assessed as significant are brought to the attention of the executive directors and are assessed on a division wide, and potentially Group wide basis. Further, Kingspan senior management team hosts a full, long-term strategic review of the business annually. This review includes all aspects of the business and strategic decisions are made which include any climate-change issues assessed. These are the formal processes by which risks and opportunities which have been identified in the business are notified to the CEO, and where they are assessed and monitored.

Other, C-Suite, Managing Directors: Each of Kingspan's ten operational businesses has its own management team, with the Managing Directors responsible for managing all the opportunities and risks within that business, including those relating to climate-change. Prior to the divisional reviews highlighted above, the Managing Directors conduct a similar review with all the business units within their divisions. All underlying and emerging risks and opportunities are assessed and updated at these meetings, which are then fed back into the executive level monthly divisional review.

The Managing Directors are ideally positioned to consolidate the risks and opportunities across their relative divisions as they can assess the outlook across multiple dimensions including commercial, operational and financial, and across multiple geographies. Managing Directors also have the authority and resource to act where needed. On average, Kingspan Managing Directors have responsibility for approximately 1,500 employees, 16 manufacturing facilities and €500 million of revenue.

Head of Innovation: Kingspan's innovation function is responsible for the continued improvement of the performance of our products over a broad spectrum of outputs, including those which mitigate climate-change. Kingspan is the market leader in high-performance insulation and we invest in R&D to maintain our differentiated offering. Our Head of Innovation is best positioned, through his exposure to the commercial, sustainability and management teams, to drive the innovation agenda as it relates to climate-related risks and opportunities. Our Head of Innovation hosts a quarterly innovation review with our divisional management teams, where pending innovations are updated, and any new market technologies or technology needs which are identified in the business will be discussed. He also sits on several key teams throughout the Kingspan organisation including the Planet Passionate Team. Kingspan's Head of Innovation formally updates our CEO monthly but is not limited to formal updates, has monthly review sessions with the Head of Sustainability, and formally presents to the whole PLC board annually.

Head of Sustainability: Kingspan Group's sustainability function is responsible for the management and implementation of the Planet Passionate strategy and the wider sustainability agenda. The Planet Passionate strategy consists of 12 targets across four key areas: energy, carbon, circularity and water. The Head of Sustainability is responsible for liaising with multiple functions throughout the Group to understand risks or opportunities as they pertain to sustainability, including risks or opportunities related to climate-change. Our Head of Sustainability hosts a quarterly Planet Passionate meeting with our divisional representatives and members from other functions. The Head of Sustainability formally updates our CEO monthly, but the exchange of information is not limited to formal updates. After each Planet Passionate quarterly meeting, Executive Directors (up to four board members) and all

Managing Directors are updated. The Head of Sustainability formally presents to the whole PLC board annually.

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	

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	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward		<p>Short-term rewards: 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. Energy saving in operations also reduces cost and contributes to profits.</p> <p>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. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.</p>
Other C-Suite Officer	Monetary reward		<p>Short term rewards: 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. Energy saving in operations also reduces cost and</p>

			<p>contributes to profits.</p> <p>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. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.</p>
Business unit manager	Monetary reward		<p>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.</p> <p>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. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.</p>
Process operation manager	Monetary reward		Plant managers in one Division receive monetary reward for meeting energy saving targets.
Environment/Sustainability manager	Non-monetary reward		Recognised as a key part of the KPIs of SHE Managers.
Facilities manager	Non-monetary reward		Contribution to Group-wide Planet Passionate targets by 2030 part of KPIs.
Other, please specify	Monetary reward		Short term rewards: Rewarded on Group Profits arising from the maximisation of the

Kingspan Group Head of Sustainability			<p>sale of low energy building solutions. Increases in sales of energy saving products, on-site renewables and climate adaptation products all assist profits. Energy saving in operations also reduces cost and contributes to profits.</p> <p>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. The Group's progress against these targets will be reviewed and disclosed in Kingspan's annual Planet Passionate report.</p>
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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	5	Kingspan considers a short term (2020 - 2025) horizon for assessing climate-related risks and opportunities to be in line with its science-based target and some Planet Passionate targets.
Medium-term	6	10	Kingspan considers a medium horizon (2026 - 2030) for assessing climate-related risks and opportunities up to 2030. This time horizon was established in line with the EU 2030 Climate and Energy Framework. Considerations of transitional risks such as policies and technology will be considered along with physical risks.

Long-term	11	30	Kingspan considers a long term (2031 - 2050) horizon to 2050 in line with the strategy for the transition to a low-carbon economy recognised in the Paris Agreement and EU Low Carbon Economy Roadmap to 2050.
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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 2020, for example, that would be any risk that would potentially impact group trading profit (EBITA) by €25 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 2020, for example, that would be any risk that would potentially impact trading profit (EBITA) by €25 million.

Strategic: Kingspan considers any strategic risk which has the potential to impact revenues by over 5% as substantive. In 2020, for example, that would be any risk that would potentially impact revenue by over €200m.

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

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

Downstream risks and opportunities, as they relate to climate-change, are managed through a multi-disciplinary, company-wide, risk management process. 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, risks or opportunities 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.

Substantive risks or opportunities include those which have the potential financial impact of more than 5% of Group EBITA or 5% of Group revenue, or risks which may have a strategic or reputational impact as deemed by the senior teams. 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.

There are multiple strands within the business for identifying risks and opportunities as they relate to our downstream value chain. Kingspan employees are represented in trade associations and industry bodies; Kingspan presents and attends major industry tradeshows; its employees are in discussions with Government and regulatory officials to ensure the management team remains fully apprised of emerging regulation. Our commercial teams liaise with customers, building owners, design teams and architects daily and feedback any potential risks or opportunities from market demand changes or new technologies. Risks and opportunities are escalated through the chain on consultation with next level management and the assessment of whether the risks or opportunities are substantive and further escalated to business unit and divisional reviews where relevant.

Risks and opportunities, 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 quarterly innovation review with the business divisions.

The decision to mitigate, transfer, accept or control the identified risk is determined based on the specific risk or opportunity identified. In all of our identified risks to the downstream value chain in Section 2.3a, we have taken the decision to mitigate the risk through investment in R&D and through supply chain engagement. In all our identified opportunities for the downstream value chain in Section 2.4a we have taken the decision to accept and control the opportunity through investment in R&D, investment in new capacity, investment in a technically educated sales team and ongoing expansion

in to new markets.

Transition Opportunity Example: There has been an escalation of climate change on government's agendas leading to unprecedented ambitions to address carbon emissions from the built environment including EU emissions targets and the revised Energy Performance of Buildings Directive (EPBD) requirement on long-term renovation strategies to support the decarbonisation of the building stock by 2050. The opportunity for Kingspan is to position itself as a market leader in addressing the European building stock efficiency goals.

Kingspan identified this opportunity through general market intelligence, our membership of trade organisations, our relationship with regulators and governments and our climate-change partners.

There will be a multi-disciplinary approach to realising this opportunity. Kingspan will work with government and regulatory bodies to help them understand the benefits and constraints of thermal refurbishment and how we can address them. Internally, our operations and finance teams will assess how we are prepared to address potential changes in demand. Management and divisional teams will remain abreast of any specific emerging regulations or incentives to support refurbishing the stock of buildings to reduce energy consumption (such as the recent EU Green Recovery Plan). As an example of how we are accepting and controlling the opportunity - Kingspan has already announced plans for up to 5 new manufacturing lines in Europe over the coming years, to support this renovation wave.

Value chain stage(s) covered

Direct operations

Risk management process

A specific climate-related risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

Even though climate change risk and opportunities pertaining to our direct operations are not as significant as those related to either the downstream or upstream parts of our value chain, they are nevertheless managed through a specific climate related risk management process.

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, risks or opportunities 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.

There are several committees within the business that cover specific risks, for example: the Planet Passionate (PP) Committee, which tries to manage and address Kingspan's own environmental impacts (energy, carbon, water, waste and raw materials); 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. Risks are escalated through the chain on consultation with next level management.

Our Operations leaders and Planet Passionate Team would be the driving force in identifying risks and opportunities as they relate to our direct operations. Risks and opportunities are escalated through the chain on consultation with next level management and the assessment of whether the risks or opportunities are substantive and further escalated to business unit and divisional reviews where relevant.

Physical Risk Example: Kingspan's Insulated Panels site in Holywell, UK, is situated on the estuary of the River Dee. Sea level rises resulting from climate-change could impact operations at the site. The risk was identified by site managers and through consultation with local council. On appraisal between the operations team and management it was decided to mitigate the risk through planning. Local 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 occurs. Emergency planning procedures are set and reviewed annually. Changes to site level risk are under ongoing review.

Value chain stage(s) covered

Upstream

Risk management process

A specific climate-related risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Upstream risks and opportunities, as they relate to climate-change, are managed through a specific climate related risk management process. At Group level, we actively engage and monitor our supply chain partners performance in relation to climate change to identify any upstream activities, products and services that are material to our business activities that may pose climate related risks or opportunities.

We recognise the need to minimise the carbon used to produce our products, the majority (75%) of which comes from the raw material stage.

Management of upstream risks and opportunities are the responsibility of the Group Sustainability team and Divisional Procurement teams. Carbon emissions data from our key raw material supplier purchases are collected and assessed annually to help identify any new risks and to reassess the impacts of risks that have already been identified.

Risks and opportunities can be escalated during the monthly reviews of the Head of Sustainability and Head of Procurement with the CEO. Our CEO also has direct updates with key suppliers on the climate change agenda. To assess whether the risks or opportunities are substantive and further action is required. The decision to mitigate, transfer, accept or control the identified risk is determined based on the specific risk or opportunity identified.

Substantive risks or opportunities include those which have the potential financial impact of more than 5% of Group EBITA or 5% of Group revenue, or risks which may have a strategic or reputational impact as deemed by the senior teams. 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. Key procurement and sustainability representatives present and attend this forum.

On the identified risk in our upstream value chain in Section 2.3a, we have taken the decision to mitigate the risk through committing to company level scope 3 emission targets and through supply chain engagement.

Transition Risk Example: Kingspan has made two public commitments to reduce its Scope 3 emissions:

- Verified (existing) Science Based Scope 3 Target: 10% absolute reduction in scope 3 emissions by 2025 from a 2017 baseline
- Verified (new) 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 2019 baseline.

Supplier engagement is generally prioritised on magnitude of expenditure with focus on critical raw material suppliers. Kingspan’s procurement and sustainability teams work closely with our primary suppliers on carbon reduction strategies and new product development.

CASE STUDY: Kingspan’s Investment in H2 Green Steel

As a way of demonstrating our commitment to lower embodied carbon, to our customers, our investors, our employees and importantly, to our incumbent suppliers, in 2021, Kingspan made a small investment in a start-up steel producer, H2 Green Steel (H2GS). H2GS aims to be producing steel by 2024 with c.95% less embodied carbon to comparable steel today. Kingspan and H2GS have committed to a future supply relationship.

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	<p>Kingspan’s operations have been impacted by regulation introducing carbon taxes, thereby incentivising us to improve our energy performance. Even though Kingspan is not included in any emissions trading scheme (e.g. EU ETS), 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 are relevant and always included.</p> <p>Example: Kingspan is present in over 70 countries so current regulation related risks are assessed and managed locally by the management teams. The Sustainability team also stays up to date with all laws and regulations pertaining to climate change. If any issues or concerns are identified they can be escalated during the divisional monthly management meetings. The actual financial impact by increased carbon taxes or introduction of carbon taxes in more countries where Kingspan operates can only be estimated due to the plethora of unknown variables. Nevertheless, as a way to mitigate this risk, we announced a range of initiatives as part of our Planet Passionate programme to reduce non-renewable energy consumption in Kingspan, partly funded by a bilateral “Green Loan” of €50million. These initiatives include targets to have solar PV systems on all wholly owned facilities by 2030; to increase our on-site generation of renewable energy to 20% and to achieve Net Zero Carbon Manufacturing by 2030.</p>

<p>Emerging regulation</p>	<p>Relevant, always included</p>	<p>In December 2019, the EU launched The European Green Deal. It is the EU's roadmap for making the EU's economy sustainable. It provides a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy and to restore biodiversity and cut pollution. One of the EU's objectives is to reduce emissions from the EU's industry, which accounts for 20% of the EU's carbon emissions. It is not clear what mechanisms will be used at a national level to achieve the emissions reduction targets, Kingspan understands its responsibility to address carbon emissions from its operations and is already taking steps with our Planet Passionate agenda. 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 targets net zero carbon manufacturing by 2030.</p> <p>Example: Mitigating potential future carbon taxes within the EU: Kingspan has 107 manufacturing facilities in the EU (including the UK) and therefore a significant number of our sites will be covered by any initiatives introduced in the EU to achieve emissions reduction targets. Kingspan has introduced many initiatives to achieve the target of net zero carbon manufacturing by 2030, including improving the energy efficiency of our processes and increasing on-site renewable energy generation. In early 2020, we announced that we arranged a bilateral "Green Loan" of €50 million to fund our Planet Passionate Initiatives which include targets to have solar PV systems on all wholly owned facilities by 2030 and to increase our on-site generation of renewable energy to 20% by 2030.</p> <p>Significant risks of this nature are assessed at a Group level by the sustainability team and escalated to the senior team where necessary. Emissions reduction activities are embedded within the business strategy, 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. The Planet Passionate team sits quarterly and updates the CEO monthly and the divisional directors quarterly. Regulation has the potential to impact many aspects of Kingspan's operations and therefore it is relevant and always included.</p>
<p>Technology</p>	<p>Relevant, sometimes included</p>	<p>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. Innovation is a key pillar to our strategy. Failure to innovate ahead of our competitors is a risk to our business model.</p>

		<p>Innovation by nature is not a new risk that is identified on a regular basis and is sometimes included in our risk assessment updates.</p> <p>Substitution risks would be identified through presence at trade shows and industry events; by our dedicated Innovation team; from the investment community through Investor Relations and through our commercial teams from customer interaction. Kingspan's Head of Innovation is responsible for the company's research and development functions. 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.</p> <p>Kingspan invests broadly 1% of revenue annually (€33.1 in 2020) 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 quarterly Innovation review which includes the CEO and the Managing Directors.</p> <p>EXAMPLE: 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 2020, QuadCore accounted for almost 12% of Kingspan's insulated panel revenue with a targeted revenue of 50% of insulated panel revenue within the next four years. Our R&D is already focussed on the next generation of QuadCore in order to maintain and advance the technological gap between Kingspan and our competitors.</p>
Legal	Relevant, always included	<p>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. Legal risk is always included as operations must meet environmental compliance and are audited regulatory by industry bodies such as the EPA. Any failure to pass these audits could have a significant impact on Kingspan's reputation as a leader in the climate change agenda.</p>

		<p>Legal risks would be identified at site level by facilities or operations management and escalated where necessary. Risks are mitigated by adopting standards such as ISO 14001 and ISO 50001.</p> <p>Example: Climate related litigation claims could result in fines and could damage Kingspan's reputation as a leader in the climate change agenda. Many of our sites have their environmental compliance monitored in line with globally recognised standards such as ISO 14001 and ISO 50001. 66 of Kingspan sites are certified to ISO 14001 and 20 sites to ISO 50001. These best practices are shared through the Health and Safety Committee and the Planet Passionate Committee. 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.</p> <p>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.</p>
Market	Relevant, always included	<p>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 always relevant and 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 insignificant relative 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.</p> <p>EXAMPLE: We recognises the importance of working with critical suppliers on emissions reduction activities to reduce the embodied carbon of our products. To assess this risk, Kingspan undertook value chain emissions assessment as part of the development of its science-based targets and product level life cycle assessment to understand the embodied carbon impact at both supply chain and product.</p>

		<p>Kingspan has made two public commitments to reduce scope 3 GHG emissions: a science-based target to reduce absolute emission by 10% by 2025 (2017 baseline) and a target to reduce CO2 intensity of raw materials from our primary supply partners by 50% by 2030.</p> <p>Any sustained change in trend in customer behaviour would be notified to local commercial directors who would assess the 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.</p> <p>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 which is assessing the viability of alternative materials which can continue meet the best-in-class thermal performance of our insulation products.</p>
<p>Reputation</p>	<p>Relevant, always included</p>	<p>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 warranted for thermal performance, therefore reputation is a key facet to customer conversion and therefore reputation is always relevant and included.</p> <p>EXAMPLE: Product performance failure as it relates to thermal performance and therefore energy efficiency. To mitigate risk of product performance failure, all raw materials are tested before being put into production and all product batches are quality tested before they leave our sites. Most new products go through a certification process which is undertaken by a recognised authority before it is brought to market and our facilities are subject to regular quality audits.</p> <p>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.</p>

		<p>Significant risks or opportunities relating to product failure would be assessed and escalated directly to the CEO or 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. Product batches can be easily traced in the event of a failure as all outputs are recorded in SAP. Further, with our most advanced products, such as QuadCore, we offer up to 40 years of thermal performance warranty .</p> <p>In addition, Kingspan is investing to further enhance our reputation with customers as a leader on the climate change agenda. In December 2019 Kingspan announced the next phase of our internal commitment to tackling climate change, our Planet Passionate Commitments. 12 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.</p>
Acute physical	Relevant, sometimes included	<p>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. 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. Acute risks are sometimes included, when a specific acute event occurs or is anticipated.</p> <p>EXAMPLE: 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. 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.</p>
Chronic physical	Relevant, sometimes included	<p>Kingspan’s facilities are globally spread but consideration is still given to potential chronic physical events impacting our business activities in the future and therefore is relevant sometimes included. Kingspan’s business model is dependent on the availability and quality of its</p>

		<p>physical infrastructure, its raw material supply chain and its information technology. The safe and continued operation of such systems and infrastructure is threatened by natural and man-made perils and is affected by the level of investment available to improve and protect them.</p> <p>Any significant or prolonged restriction to its physical infrastructure, the necessary raw materials or its IT systems and infrastructure could have an adverse effect on Kingspan’s business performance. Kingspan assesses its exposure to chronic physical climate related risks (such drought, heatwaves and sea level rise) through audits and self-assessment questionnaires updated on an annual basis by the Group level sustainability and Divisional health & safety teams.</p> <p>EXAMPLE: At Group level, the sustainability team has undertaken a preliminary analysis to better understand potential chronic physical risks to our manufacturing sites. The preliminary analysis reviewed sites based on the elevation above sea level to determine which sites may be at risk in the future and warrant further investigation. The analysis found we have less than 4% of our sites in potential risk areas. We are currently in dialogue with local management to conduct further analysis and assessment of site level measures that may be required.</p> <p>Risk of disruption due to climate related disruptions (weather driven, regulatory, etc.) could have an impact on our future production capacity and mapping of this risk is currently underway. Kingspan’s Group sustainability team is currently working with local teams to assess the level of management required.</p>
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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

(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

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

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.

For example, Kingspan's energy efficient insulation products account for almost 60% of revenue. Should a competitor bring a higher performing insulation technology – in terms of thermal performance- to market, it could impact revenue in that product range.

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 2020, QuadCore® accounted for c.12% of our global insulated panel sales. 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 €55-350m of revenue. We consider the 'Magnitude of Impact' Medium-Low given our considerable response to the risk.

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)

Potential financial impact figure – minimum (currency)

55,000,000

Potential financial impact figure – maximum (currency)

350,000,000

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:

- 12% share loss in our largest division (in line with the share gains realised by QuadCore®) -Insulated panels - 64% of revenue
- at minimum takes 12% share in only one market, assume 16% (largest single market), at maximum assume takes share globally (unlikely).

Minimum:

- €4.6billion (Group revenue 2020) * 64% (Insulated Panel rev) * 16% (largest geographic market) * 12% (share loss) = €55m

Maximum:

- €4.6billion (Group revenue 2020) * 64% * 100% (all markets) * (Insulated Panel Rev) * 12% (share loss) = €350m

Cost of response to risk

35,600,000

Description of response and explanation of cost calculation

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 risks are identified through attendance at tradeshow and industry events, liaising with universities and industry experts and talking to our customers. We assess our product portfolio's ability to target current and future opportunities for profitable growth, including opportunities which address climate-change. Our Head of Innovation holds quarterly innovation reviews with senior participants from our three key divisions

to continuously assess the innovation needs of the business.

Example of a risk response action:

Kingspan established IKON in 2019. IKON is Kingspan's new global innovation centre located in Ireland. Both a place of research and a living research project, it asks the big questions that will lead the company to a more sustainable future while delivering enhanced value to its customers. The IKON contains state-of-the art laboratories and prototyping capabilities. It will bridge business divisions and geographic regions and continue to drive Kingspan's position as market leader in sustainable and energy efficient building solutions.

Cost of response to risk: Kingspan invests approximately one per cent of revenue annually in research and development and digital transformation. In 2020 the investment in R&D was €33.1m, 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 continue to drive Kingspan's position as the market leader in sustainable and energy efficient building solutions.

Kingspan's continuing investment in research and development involves over 40 key projects. In 2020 we launched the award winning Daylite Kapture skylight and continued to progress development on the following key projects:

- PV solar-integrated PowerPanel 2.0;
- Fibre-free A1 classified AlphaCore insulation;
- QuadCore 2.0;
- Kooltherm 200 series;
- Unitised facade solutions;
- Digitalisation of the construction industry; and
- Prismatic daylighting.

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: €33.1m + €2.5m = €35.6m

Comment

Identifier

Risk 2

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

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 2020, will save 716 million MWh of energy and 164 million tCO₂e over their lifetime, which compares to 5.3 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:

- Planet Passionate target: 50% CO₂ intensity reduction in products from primary supply partners by 2030 from a 2019 baseline.
- Verified (existing) Science Based Scope 3 Target: 10% absolute reduction from purchased goods and services, use of sold products and end-of-life treatment of sold products by 2025 from a 2017 baseline.
- Verified (new) 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 1.5o C 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 €100-150m of revenue.

We see this risk as having a Medium-low impact for Kingspan given our 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 significant progress towards them in the short-term.

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)

Potential financial impact figure – minimum (currency)

100,000,000

Potential financial impact figure – maximum (currency)

150,000,000

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.

Almost 60% of Kingspan's revenue is derived from energy efficient products. 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 3-5% through this loss of leadership position. The revenue impact could be negative c.€100 - 150 million. This estimate is a highly speculative. This estimate assumes customers move to products which enable a 1.5o C scenario and Kingspan has failed to meet its SBTs, which we see as unlikely. It also assumes there are suitable low embodied carbon alternatives which there are not today.

We base this assumption on the fact that only a specific set of customers would look solely at embodied carbon and not the carbon savings of the products in use. However, there is growing industry interest in product level embodied carbon which is expected to continue. 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

10,000,000

Description of response and explanation of cost calculation

Kingspan has made two public commitments to reduce scope 3 GHG emissions – for more details see company specific description.

Supplier engagement is generally prioritised on magnitude of expenditure with focus on critical raw material suppliers. Kingspan's procurement and sustainability teams work closely with our primary suppliers on carbon reduction strategy and new product development. Kingspan also proactively provides customer feedback on the urgent need to rapidly reduce carbon intensity.

ACTIONS TO MITIGATE: An example of Kingspan's intent to make meaningful progress towards this goal is active engagement with suppliers on an ongoing basis to obtain carbon data and discuss ongoing projects. Kingspan actively tracks annually carbon emissions performance of its suppliers and maps their progress against Kingspan's supply chain targets.

Engagement to date has included site visits, meetings, conference calls, and electronic communications between the procurement and sustainability functions of each company.

CASE STUDY: Kingspan's Investment in H2 Green Steel

As a way of demonstrating our commitment to lower embodied carbon, to our customers, our investors, our employees and importantly, to our incumbent suppliers, in 2021, Kingspan made a small investment in a start-up steel producer, H2 Green Steel (H2GS). H2GS aims to be producing steel by 2024 with c.95% less embodied carbon to comparable steel today. Kingspan and H2GS have committed to a future supply relationship.

CALCULATION OF COST OF MANAGEMENT:

Total cost of management: c. €10,000,000

The cost of management is estimated as

- €50,000 -100,000 based on the cost of internal and external resources required to monitor and implement initiatives to achieve targets. This includes internal meetings, research and engagements with external stakeholders; plus
- a portion of the ongoing investment in R&D, which was €33.1m in 2020; plus
- the capitalised expensive of the investment in the IKON and our Fire Centre (c.€10m total investment).

The investment in H2GS is not disclosed, but we are a minority equity investor in the business with a single digit percentage investment.

Comment

Identifier

Risk 3

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

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 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.

As our emissions from our purchased goods and services account for over 75% of our total value chain emissions, we have set an ambitious target aiming to achieve a 50% reduction in CO₂e intensity of the primary raw materials supplied to Kingspan by 2030. 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.

We see this risk as having a Medium-low impact for Kingspan given our strategic commitment to innovation and our scale of innovation in comparison with our peers.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

37,000,000

Potential financial impact figure – maximum (currency)

100,000,000

Explanation of financial impact figure

If our key suppliers fail to decarbonize in line with the latest climate science (this is highly dependent on how easily the supplier can substitute its products with low-carbon alternatives) there's a risk they will pass through their increased cost to their customers – including Kingspan.

Calculation of potential financial impact:

Cost pass-through of carbon costs will depend on various factors, including market structure and competition, the elasticity of demand and the marginal cost curve of domestic industries. Adding the highly uncertain and debated range of expected pass through costs per industry, any attempts at calculating the costs is challenging. Nevertheless, to calculate the potential financial impact for this risk we made the following assumptions:

- a carbon tax of €95-265 per tonnes
- a 10% pass through of increased carbon costs

Calculation:

Minimum = 3.9m (tCO₂e in our purchased goods & services) * €95 (carbon tax) * 10% (pass through) = €37m

Maximum = 3.9m (tCO₂e in our purchased goods & services) * €265 (carbon tax) * 10% (pass through) = €100m

This assumption is highly speculative given the number of variables.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Our response to this risk is structured around two areas: active engagement with key suppliers to address the necessary emission reductions and a focus on increasing our adaptive capacity. We define as adaptive capacity the ability to source lower-carbon raw material options to take the place of existing carbon-intensive raw materials to help progress towards our emissions reduction goals. In 2020, we strengthened our working relationships with our key suppliers. Our activities included numerous cross functional team meetings, strategy reviews and, where possible, site visits. Our sustainability and procurement teams worked closely with our main raw material suppliers throughout the year, which has resulted in several ongoing collaborative projects. We also further refined our methodology for gathering and tracking supplier data.

CASE STUDY: During 2020, Kingspan explored many alternative materials and supplier options as part of our development agenda. A key outcome of which was a small investment in a start-up steel producer, H2 Green Steel (H2GS) in early 2021. H2GS aims to be producing steel by 2024 with c.95% less embodied carbon to comparable steel today. Kingspan and H2GS have committed to a future supply relationship.

Explanation of cost calculation:

- The Group sustainability team and the divisional procurement directors are responsible for managing this risk. They meet on a bi-weekly basis with tasks including supplier strategy reviews, supplier carbon trajectory mapping, one to one meetings with suppliers and reporting updates to the senior management team on a quarterly basis. The team is

supported by the CEO through discussions with supplier senior management teams on a quarterly basis. Part of our development agenda is exploring alternative low carbon materials.

The cost of management €100,000 is estimated based on the time commitment of the Sustainability team and senior leaders.

Comment

Identifier

Risk 4

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

Company-specific description

The European Green Deal is the EU's roadmap for making the EU's economy sustainable. It provides a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy and to restore biodiversity and cut pollution. One of the EU's objectives is to reduce emissions from industry, which accounts for 20% of the EU's carbon emissions. Legislation being introduced to help reduce emissions includes revising the EU emissions trading system (EU ETS) and having national emissions targets outside of the EU ETS (we're already paying carbon tax in several countries where we operate). While it is not yet clear what mechanisms will be used at a national level to achieve the emissions reduction targets, Kingspan is already taking steps - in line with our Planet Passionate strategy - to reduce our emissions.

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 has targeted net zero carbon manufacturing, globally, by 2030. This is a commitment which has not only resonated very strongly with our customers but will also improve the resilience of our business for the long-term.

Kingspan has 107 manufacturing facilities in the EU (including the UK) and therefore a significant number of our sites will be covered by any initiatives introduced in the EU to achieve emissions reduction targets. Kingspan has introduced many initiatives to achieve the target of net zero carbon manufacturing by 2030, including improving the

energy efficiency of our processes and increasing on-site renewable energy generation. We estimate the financial impact, in the event of emerging regulation, to be in the region of €11-34m.

We see this risk as having a low impact for Kingspan given our ambitious commitments to reduce operational carbon emissions via our Planet Passionate programme.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

29,000,000

Potential financial impact figure – maximum (currency)

81,000,000

Explanation of financial impact figure

If Kingspan stops implementing energy efficiency and carbon emissions reduction initiatives across manufacturing facilities, it may be subject to increased operational costs from any future EU industry emissions reduction initiatives and/or carbon pricing mechanisms, the introduction of carbon tax in more countries where it operates, or the increase of the price of carbon in countries where a carbon tax already exists.

Calculation of potential financial impact:

Kingspan has 107 manufacturing sites in the EU, accounting for 65% of our manufacturing portfolio. While the impact is expected to mainly manifest in Europe, we have included our operations across the globe for the estimate. We calculated the range, based on the below assumptions:

- All of our carbon emissions would be subject to the carbon tax (given our commitments to reduce emissions this is a very conservative assumption);
- The minimum carbon price used for the assessment is the carbon price for the SSP2 – 1.9 w/m² model (95 euro), whereas the maximum is the one from SSP1 – 1.9 w/m² model (265 euro).
- All counties in which we operate are going to introduce a carbon pricing mechanism.

Calculation:

Minimum = 303k (tCO₂e Scope 1+2, 2020) * €95 (carbon tax) = €29m

Maximum = 303k (tCO₂e Scope 1+2, 2020) * €265 (carbon tax) = €81m

Cost of response to risk

6,000,000

Description of response and explanation of cost calculation

In 2019, Kingspan launched its new 10-year global sustainability programme Planet Passionate with the aim of continually reducing the company's environmental footprint while continuing to grow its global business.

Actions to mitigate: In early 2020, we announced that we arranged a bilateral "Green Loan" of €50million to fund our Planet Passionate Initiatives, which include targets to have solar PV systems on all wholly owned facilities by 2030 and to increase our on-site generation of renewable energy to 20% and to achieve Net Zero Carbon Manufacturing by 2030.

Case study: Kingspan Solar PV projects through its Planet Passionate programme, Kingspan has committed to deploy rooftop solar PV systems on all wholly owned manufacturing sites by 2030. Project pipeline from 2021-2022 includes assessment of over 30 potential projects with an estimated cost of over €10million. These projects will generate over 10 GWh of renewable electricity per annum.

Cost of management calculation:

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

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Increased direct costs

Company-specific description

Kingspan recognises the potential negative impacts represented by increased severity and frequency of extreme weather events such as cyclones and floods due to climate change. Its facilities are globally spread but consideration is given to potential acute physical events at local level. Kingspan assesses its exposure to acute physical climate related risks (such as increased flooding) through regular reviews, audits and self-assessment questionnaires. At Group level, a risk mapping exercise was undertaken using the World Resources Institute (WRI) Aqueduct Water Risk Atlas. The findings indicate that 17 out of 166 sites are at high to extremely high risk of river flooding, 5 out of 166 sites at high risk of coastal flooding and no sites at high risk of drought.

Increased flooding risk: Kingspan's Insulated Panels site in Holywell, UK, is situated on the estuary of the River Dee. Increased flooding events, resulting from climate-change could impact operations at the site. No imminent risk has been identified. We estimate the financial risk, in the event of flooding at Holywell, to be in the region of €10-20m of revenue.

We see this risk as having a low impact for Kingspan given our global diverse manufacturing base.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

20,000,000

Potential financial impact figure – maximum (currency)

40,000,000

Explanation of financial impact figure

Kingspan's manufacturing site at Holywell has been assessed to be vulnerable to flooding as a result of climate-change given its coastal location. It is situated on the estuary of the River Dee in Wales. Business interruption caused by flooding would impact the site's production capacity due to potential damage of assets at the site and inability to operate the site.

CALCULATION OF POTENTIAL FINANCIAL IMPACT: To assess the impact of flood risk to Holywell, we look at the number of days revenue that would potentially be lost from a full shut-down before a full diversion of business to neighbouring facilities. We estimate this impact to be in the region of negative €10-20 million in revenue. We cannot offer further details as this information is commercially sensitive.

Flooding disruption at Holywell, as one of our largest insulated panel sites, has the potential to impact service levels to customers in the short-term, therefore it has the additional aspect of being a reputational risk.

Given Kingspan's globally diverse manufacturing base, we make the assumption that no more than 2 of our sites would be impacted by acute physical events simultaneously.

Hence our estimated financial impact is:

€10-20m (Holywell example) * 2 (sites impacted) = €20-40m

Cost of response to risk

60,000

Description of response and explanation of cost calculation

Kingspan's sites are assessed annually for their potential exposure to all risks, including climate-related risks. Significant risks are escalated through the internal risk management processes.

CASE STUDY: Holywell site, UK: Flood risk is managed at the site.

ACTIONS TO MITIGATE:

- The site has an annually updated flood emergency plan;
- flood protection in several site locations;
- connected to flood warning alerts from the UK Environment Agency; (iv) Emergency team which will be activated upon a warning, including IT.
- server rooms are built at an elevated level;
- the most vulnerable area of the site has had flood diversion measures put in place;
- contractor on retainer to remove water using road tankers;
- banks of the site were raised;
- gate valve outlet to the sea has been refitted with new seals
- neighbouring facilities to be notified to be on alert for order diversion.
- In 2014 storm water breached the outer sea defences, we observed that our defences were successful. There were no incidents in 2020.

Cost of management is estimated as between €60,000 and €100,000 per annum in additional insurance premiums, and increased training and maintenance costs. With 166 manufacturing sites, one plant provides cover for another. Risk is further mitigated through consequential loss insurance and business continuity plans which are regularly updated.

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 the energy efficiency and 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 with the aim to at least double the annual energy renovation rate of buildings by 2030 and 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 and 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 and building decarbonisation objectives.

A key facet within the renovation wave is to improve the energy efficiency of the building envelope. Kingspan's world class, ultra-performance insulation products are ideally

suitable for renovation given the fact that dimension is a key constraint in refurbishment. We have published several reports on how investment in premium insulation can have an immediate and significant return when dimension is taken into account. 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 (€470-940 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. This opportunity is based fully on the assumption that policy will stimulate deep energy refurbishment to the required rate.

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)

Potential financial impact figure – minimum (currency)

470,000,000

Potential financial impact figure – maximum (currency)

940,000,000

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 2°C 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, 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 €940m 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):

- 2020 Revenue * group renovation exposure * approx. EU + US exposure * probability
- = €4570m * 24% * 86% * 50% = €470m

Maximum Calculation

- 2020 Revenue * group renovation exposure * approx. EU + US exposure * probability
- 2020 Revenue * group renovation exposure * approx. EU + US exposure * probability (assumes 100% of target renovation rate achieved):= €4,570m * 24% * 86% * 100% = €940m

Cost to realize opportunity

70,000,000

Strategy to realize opportunity and explanation of cost calculation

Kingspan, through its development teams and marketing initiatives, 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 and industry events.

Additionally:

- we are working on white papers to establish what needs to happen with the European building stock and to explain how Kingspan can contribute to the solution;
- 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 have established industry alliances such as EU-ASE and EuroACE, enabling us to engage with policy makers, NGOs and other thought leaders.

Example:

Kingspan is working with the Sustainable Energy Authority of Ireland (SEAI) on a “deep retrofit” pilot scheme. In 2017 SEAI launched the Deep Retrofit multi-annual pilot programme. The programme currently investigates the challenges and opportunities of deep retrofit in Ireland. The learning from this pilot will inform its approach towards a large scale deep retrofit of buildings. Kingspan is a key partner in the pilot scheme. The SEAI estimates that over €35 billion will be required to make the existing housing stock low carbon by 2050. We estimate replicating this scheme across Europe would cost the equivalent of two FTEs, or €100k.

More generally, we invest c.10% of revenue in selling and administration expenses.

Therefore, we estimate the cost to realise the opportunity as €10 to €20 million.

Kingspan is also adding capacity across Europe to address the renovation demand. We expect to invest an additional €100m of development capital expenditure over the next 2 years to add capacity as needed. At least 50% of this is for European capacity.

Total cost to manage:

- Annual op ex €10-20 million
- Additional cap ex €100m (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 €60-70m.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

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 and we have 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 PowerPanel (an integrated insulated roof panel with solar technology) 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 2020, QuadCore accounted for c.12% of our global insulated panel sales. 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 €300-500m of annual revenue 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)

Potential financial impact figure – minimum (currency)

300,000,000

Potential financial impact figure – maximum (currency)

500,000,000

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, when launched in the UK in late 2021/early 2022, 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 €300-500m to revenue annually scaling up to 2024.

Any additional innovations would be incremental but very difficult to estimate. 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.

Contribution from newly innovated products would be incremental but very difficult to estimate timing or impact.

Cost to realize opportunity

35,600,000

Strategy to realize opportunity and explanation of cost calculation

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 tradeshow and industry events, liaising with universities and industry experts and talking to our customers. We assess our product portfolio's ability to target current and future opportunities for profitable growth, including opportunities which address climate-change.

Kingspan's Head of Innovation hosts an innovation review quarterly with the divisional MDs where new innovation opportunities are discussed. During 2020 Kingspan's continuing investment in research and development involved over 40 key projects.

Case Study: Kingspan developed first generation QuadCore in 2015. 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 2020 Quadcore accounted for c.12% of our global insulated panel sales. Kingspan targets QuadCore to account for 50% of global insulated panel revenue by 2024. We are already working on the next generation of QuadCore technology.

Actions being implemented: In 2019, Kingspan created IKON. IKON is our new Global Innovation Centre, dedicated to advanced material science and the digitalisation of construction. The building itself is a living research project, providing a foundation for future value creating innovation. IKON has state-of-the-art laboratory and prototyping capabilities and will be fundamental to driving the next phase of innovation in climate mitigating technologies for the construction sector.

Cost of management: Kingspan invests approximately 1% of revenue annually in research and development and digital transformation. In 2020 the investment was €33.1m. We view this as a necessary investment to continue to drive Kingspan's position as the market leader in sustainable and energy efficient building solutions. In 2019, Kingspan invested an additional €10 million in a new innovation centre in Ireland.

We calculate the cost of management for this opportunity as our annual investment in R&D plus the capitalized expense of the investment in our research facilities: €33.1m + €2.5m = €35.6m

Comment

Identifier

Opp3

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 resulting from increased demand for products and services

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 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 15 sites or operational lines around the world, five of these new facilities are in relatively new geographies for Kingspan 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 €250-500m of annual revenue.

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

Short-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)

Potential financial impact figure – minimum (currency)

250,000,000

Potential financial impact figure – maximum (currency)

500,000,000

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 €250m to €500 m in annual revenue, scaling up, over the next five years. M&A has the potential to increase that range.

Cost to realize opportunity

150,000,000

Strategy to realize opportunity and explanation of cost calculation

Kingspan continuously seeks 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.

Actions being implemented to realise this opportunity, for example:

- Presenting at tradeshow;
- 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 new markets.

Example: Kingspan has announced plans to build 15 new facilities or operational lines over the next three years, most of which expand our presence in relatively new geographies or expand our scope to service existing geographies where the use of high-performance building materials is growing.

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 €25 million to €50 million annually.

Kingspan is also adding capacity to address the demand from new markets. We expect to invest an additional €100m 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 €125-150m.

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

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 market leader in advanced insulation materials as they relate to the building envelope. Our strategy is 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 with Europe's Energy Performance of Building Directive (EPBD) requiring all new buildings to be nearly zero-energy buildings (NZEB) from 31 December 2020 and President Biden's commitment to modernise and upgrade residential and commercial buildings in the US.

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 16% 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 €90-120m 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)

Potential financial impact figure – minimum (currency)

90,000,000

Potential financial impact figure – maximum (currency)

120,000,000

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 15% 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 and 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 2020 was driven by a demand for energy efficient products and their ancillaries. Approximately 76% of revenue is new build, hence the annual incremental impact could be estimated to be in the range of €90-120m in revenue.

Minimum Calculation (assumes 3% growth above construction macro):

2020 Revenue * Energy Efficiency % * new build % * 3%

= €4,600m * 85% * 76% * 3% = €90m

Maximum Calculation (assumes 4% growth above construction macro):

2020 Revenue * Energy Efficiency % * new build % * 4%

= €4,600m * 85% * 76% * 4% = €120m

Cost to realize opportunity

112,000,000

Strategy to realize opportunity and explanation of cost calculation

Kingspan continuously seeks 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 stakeholders.

A specific Kingspan example is our “Value Proposition” marketing brochure. Within this brochure we assess the returns on investment related to investment in insulation. The benefits of a whole building approach to new build is given as follows for a large supermarket building:

-Capital cost increase = €19,600 (£14,000)

-Internal Rate of Return (IRR) = 16.7%

-Return on Investment (ROI) = 223%

Kingspan invests in the development of markets through a technically educated commercial team. These commercial teams approach architects and building owners directly promoting the benefits of high-performance materials. We have many examples where specifications were converted to Kingspan products through this method.

Considering the number of employees in sales, and our estimate of salary premium for technical qualifications, we estimate the investment in a technical team is in the region of €10m.

Kingspan is also adding capacity globally to address the increase in demand from continued conversion to high-performance materials. We expect to invest an additional €100m of development capital expenditure over the next 2-3 years to add capacity as needed.

Overall, we expect the annual investment to support the conversion opportunity will be €108-112m. While the investment to support the opportunity will be over the short-term, the incremental increase in revenue will be realised in 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.

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)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

11,500,000

Explanation of financial impact figure

To increase energy resilience, amongst other things, Kingspan has set four energy targets to achieve by 2030 along with a well-established energy efficiency programme embedded in the business.

Improving energy efficiency is managed via our Planet Passionate programme and via 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.

For example:

- Energy Efficiency: Energy Performance Contracts. 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 €6,520,000.
- Renewable Energy: To increase resilience and reduce potential exposure to increased operational costs from future rises in electricity costs.

CALCULATION OF PONTENTIAL FINANCIAL IMPACT:

Kingspan has 166 manufacturing facilities globally using 220 GWh of electricity. An independent study estimated that global electricity prices are expected to rise on average by 160% by 2030. Assuming Kingspan can lock-in today's energy prices, by deploying renewable energy projects and signing renewable energy contracts, we estimate we can save up to €5m on the c.220 GWh currently being consumed by the business.

Total potential saving opportunity: €6.5m (energy performance contracts) + €5m (lock-in today's energy prices) = €11.5m

Cost to realize opportunity

6,000,000

Strategy to realize opportunity and explanation of cost calculation

To increase energy resilience, amongst other things, Kingspan has four energy targets to achieve by 2030 and has established ongoing energy efficiency programme embedded with the business.

CASE STUDY: On-site renewable energy generation: In 2020, Kingspan generated the equivalent of 4.7% of its total energy use on its own manufacturing sites. Through Planet Passionate, Kingspan aims to increase this to 20% by 2030. We are currently planning and deploying multiple solar PV projects across our operations which will generate over 10 GWh of renewable electricity, 4.6% of Kingspan's total electricity use.

If prices are secured at current or below current market rates for all projects, we expect to save up to €5m in additional operational energy costs by 2030 and a potential further €6,520,000 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

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization’s low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	

C3.2

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

Yes, qualitative and quantitative

C3.2a

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

Climate-related scenarios and models applied	Details
Other, please specify Combination of SSPs and Integrated Assessment Models (IAMs).	Kingspan’s business model is built around delivering energy and carbon savings in buildings through ultra-performance insulation and solar generation solutions. As a result, it is crucial for the company to both design new business strategies and plans and to assess the resilience of its current plans for a wide range of scenarios and outcomes. In 2020 we updated our scenario modelling to include a good, well rounded

	<p>mix of narratives and carbon targets that were not focused only on energy emissions. We therefore changed our scenario from the IEA model to a mix of Shared Socioeconomic Pathways (SSPs) and related Integrated assessment Models (IAMs). We examined a range of available options and decided to develop our impact assessment methodology based on 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), SSP3 (a high challenges to mitigation and adaptation pathway) 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).</p> <p>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). When the results of the examined scenarios were either insufficient or non-existent for our purposes, we used the narratives as a guide and made educated assumptions based on publicly available information for our sector and insights from key internal stakeholders. The areas assessed include our own operations and assets, our supply chain, and the market and the time horizon considered covers both the medium and the long-term.</p> <p>CASE STUDY 1: Carbon Price: Kingspan used the projected carbon prices outlined in the aforementioned scenarios and calculated the potential financial impact on its operating costs. This impact is estimated to be €20m–40m (for more information please see Risk 4 and Opportunity 5). We have been taking steps to reduce our emissions through our Planet Passionate (PP) programme which is one of our key strategic pillars. Through PP, Kingspan has targeted net zero carbon manufacturing, globally, by 2030. This is a commitment which has not only resonated strongly with our customers but will also improve the resilience of our business in the long-term.</p>
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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

		<p>market leader in high-performance insulation technologies, enabling building designers and building owners to design and construct buildings which save energy and associated carbon through their operation over their lifetime.</p> <p>In 2016 Kingspan announced its strategy to ‘Complete the Envelope’. This strategy was to build out our portfolio of products which complement our low carbon building envelope solutions. At that time, we identified natural daylighting products, natural ventilation products, ducting and piping insulation products and roofing membrane products as the categories in which we aimed to develop. Each of which would enable us to expand our advanced building envelope solution to our customers. We identified potential weaknesses in the thermal efficiency of building envelopes by integrating multiple supplier solutions and secondary processes as opposed to single fix, compatible products, which Kingspan could offer.</p> <p>Our most substantial strategic decision to date has been to build out our Light and Air division, which offers natural daylight solutions and natural ventilation solutions.</p> <p>Both of which help to reduce the energy consumption of buildings by reducing the need for artificial lighting and mechanical ventilation. This division was nascent for Kingspan in 2016, at the end of 2020 it had a 12-month revenue run rate in excess of €500m. The business has been developed through a combination of inorganic and organic expansion. In 2020 Kingspan commenced construction on a global centre of excellence for polycarbonate panel manufacturing in Ireland, which has the capacity to manufacture rooflights which can deliver 9 billion lumens of light (enough to light up 1million homes). This strategy will enable Kingspan to drive market conversion (Opp 4) and give us access to new markets (Opp 3).</p> <p>Magnitude of impact is high €90-500m, there is some overlap between the two opportunities. The maximum opportunity is aligned with pathway SSP1 which is oriented toward lower resource and energy intensity. The minimum opportunity would be closer to scenario SSP3, a low priority for addressing environmental concerns. (Section 3.2a). Timeline of impact is short-, medium- and long-term.</p>
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<p>Supply chain and/or value chain</p>	<p>Yes</p>	<p>We recognise the need to minimise the carbon emitted due to the manufacture of our products, much of which comes from the raw materials in our value chain. We acknowledge the potential risk to revenue if customers seek out lower embodied carbon alternatives (2.3a Risk 2) and the risk of potential higher costs of materials due to higher energy/carbon prices in the future (2.3a Risk 3). Scenario analysis informed our view on the potential risk to future materials prices, as per Risk 3.</p> <p>To be a market leader in carbon efficient solutions, we took the strategic decision to set 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 2).</p> <p>Mitigation activities include establishing our Sustainability Team to monitor emissions and implement projects internally and externally to reduce Scope 1, 2 & 3 emissions; significant 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.</p> <p>A substantial outcome of these mitigation activities has been the investment by Kingspan (March 2021) 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 2024 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.</p> <p>As described in 2.4a Opp 4, a core part of Kingspan's growth strategy is to convert construction methods away from inefficient traditional technologies to high-performance building envelopes. While embodied carbon in our insulation systems is insignificant when compared with the carbon savings in use, any reduction in embodied carbon</p>
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		<p>would offer Kingspan an even more compelling case for our conversion strategy.</p> <p>Magnitude of a) Risk (2.3a Risk 2&3): €30m–250m; b) Opportunity (2.4a Opp 3): €90-120m Time horizon is short-term.</p>
Investment in R&D	Yes	<p>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) and an opportunity (2.4a Opp 2) in the short-, medium- and the long-term.</p> <p>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. IKON was constructed using over 17 Kingspan products, it contains state-of-the-art laboratories and prototyping capabilities. Work at IKON will drive future product innovation at Kingspan, cementing our position as the market leader in energy efficient building envelope products.</p> <p>Kingspan’s commitment to innovation has resulted in market leading technologies. A key example of this would be Kingspan’s development of PowerPanel which we hope to launch in late 2021 or early 2022. PowerPanel is a first-of-its-kind integrated insulated roof panel with solar technology. Enabling a single fix solution for an ultra-performance insulated roof technology which can generate its own energy from the first day of installation.</p> <p>Kingspan has committed to integrating solar technology on all of its wholly owned manufacturing facilities by 2030. PowerPanel is a product which will not only enable this</p>

		<p>within Kingspan but can also enable our customers to align their future output with a 1.5 degree scenario for SSP1.</p> <p>Magnitude of a) Risk (2.3a Risk 1): €55m - €350m; b) Opportunity (2.4a Opp 2): €300 - €500m.</p> <p>Innovation is a risk and opportunity over the short-, medium- and long-term.</p>
Operations	Yes	<p>Many of the countries in which Kingspan operates have already implemented carbon pricing mechanisms, with more countries expected to implement carbon taxes or pricing mechanisms in the future. In addition, in line with meeting the objectives of the Paris Accord, we expect increases to the current carbon taxes or pricing mechanisms. As per section 2.3a Risk 4, we estimate electricity costs for Kingspan could increase in a range of €11-34million by 2030, therefore the risk is short-term. These estimates are based on an assumption of an energy cost rise of ~160% for Kingspan by 2030. As per section 2.3a Risk 3, we estimate carbon costs within our supply chain could rise by €95-€265 per tCO₂e by 2030. These risks and ultimately the strategies to mitigate have been informed our scenario analysis as per 2.3a, risk 4.</p> <p>In 2011, Kingspan initiated a strategy to attain Net Zero Energy status by 2020. In 2019 we updated our strategy to reduce energy consumption and increase our use of renewable energy with the launch of our Planet Passionate programme. 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.</p> <p>Kingspan arranged a €50m Green Loan in 2019 to support these initiatives. As of now, we have a PV solar project pipeline of 30 projects, with an estimated cost of over €10m and potential energy generation over 10 GWh of renewable electricity per annum.</p>

		<p>Magnitude of Impact: Risk (2.3a Risk 3&4) - €41m-€134m . Opportunity (2.4a Opp 5) - lower energy costs €26-46m.</p> <p>Time horizon - This is a risk over the medium-term.</p>
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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	<p>Revenues</p> <p>Direct costs</p> <p>Indirect costs</p> <p>Capital expenditures</p> <p>Capital allocation</p> <p>Acquisitions and divestments</p> <p>Access to capital</p> <p>Assets</p> <p>Liabilities</p>	<p>Revenues: Time horizon – short, medium and long-term. Magnitude of Impact – High, €1-2billion. Kingspan is planning for significant future revenue impact from climate related risks and 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 (Opp 4). Kingspan’s innovation strategy supports our market leader position by having the most efficient and high performance insulation technologies (Opp 2; Risk 1&2). Kingspan has expanded the conversion opportunity through investment in new technologies and new geographies (Opp 3). We expect growth to be supplemented by incentives to renovate the building stock in line with the objectives of the Paris Agreement (Opp 1).</p> <p>Direct costs: Time horizon – medium-term. Magnitude of Impact – Low, €11-34million. The key area in which direct costs are likely to be impacted as a result of climate change is electricity costs. One of Kingspan’s strategic objectives is to be the world’s leading provider of low energy building envelopes. To complement that strategy, Kingspan set about reducing its own non-renewable energy consumption. We have a target to source 60% of our energy requirements directly from renewables by 2030, reducing energy price risk (Risk 4).</p> <p>Indirect costs. Time horizon – short-term. Magnitude of Impact – Low, €33-50million. 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. We invest c.1% of revenue annually on R&D and digital innovation, €33.1m in 2020. These investments support revenue growth (Opp 1,2&3) and protect against risks to revenue and rising energy costs</p>

	<p>(Risks 1,2,3&4).</p> <p>Capital Allocation and capital expenditure. Time Horizon – short-term. Magnitude of Impact – High. Kingspan invested €171m in 2020 (€353m in 2019) in assets, including M&A. Kingspan has been investing in manufacturing capacity to support our expectation of increased revenues from opportunities such as the conversion to low-carbon building envelope technologies. We have 15 new lines planned over the next 2-3 years (Opp 3&4). In addition, Kingspan invested in a new state-of-the-art innovation facility to support ongoing development of low-carbon technologies to further support that conversion strategy (Opp 2).</p> <p>Acquisitions. Time horizon – short-term. Magnitude of impact – high. Kingspan invested €46m in 2020 (€142m in 2019) on acquisitions. Kingspan has historically used mergers and acquisitions (M&A) as a route to execute our strategy. Kingspan acquires businesses for three 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); ii) to expand to new geographies which are generally at an earlier stage in their adoption of high-performance building envelopes, a significant long-term growth opportunity (Opp 3); and iii) to acquire new technologies which complement our energy and carbon efficient building envelope solutions (Opp 2).</p> <p>Access to Capital. Time horizon – short-term. Magnitude of impact – low (defined as low as incremental contribution to cost of capital is low). Kingspan has enjoyed ready access to capital given our structural growth opportunity through manufacturing climate mitigating construction materials. In 2020, Kingspan issued a sustainability aligned €750m Green Private Placement. This loan has favourable terms, aligned with Kingspan meeting its Planet Passionate objectives. And will fund the growth of the business over the short to medium-term.</p> <p>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 is constructing low carbon assets and improving the performance of our current estate (Opp 5; Risk 4).</p> <p>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.</p> <p>The following case study should demonstrate the way in which multiple</p>
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		<p>financial planning metrics have been impacted by climate related planning.</p> <p>Case Study – Renovation, Section 2.4a, Opportunity 1</p> <p>The European Energy Performance of Buildings Directive was revised in 2018 to include requirements for Member States to prepare long-term national renovation strategies. This Directive is part of the EU’s commitment to the Paris Accord which has an objective to pursue efforts to limit the temperature increase above pre-industrial levels to 1.5oC, by the end of the century. If we assume the rate of renovation will increase to double the current rate, in line with the EU’s stated objective out to 2030, and we assume similar efforts in the UK and the US, the potential additional revenue opportunity for Kingspan is €470-940m (Revenue). Kingspan has significantly increased its development capital expenditure to support this revenue opportunity. Current plans include at least 5 manufacturing lines in Europe and, in total, 15 globally (Capital Expenditure and Capital Allocation, Assets). Kingspan is building low carbon assets such as Jonkoping in Sweden which will run fully on renewable energy, protecting us from future energy price rises (Direct Costs, Assets). Kingspan’s innovative products such as Kooltherm insulation boards are sought after products in renovation given the strong thermal performance, enabling thinner insulation, and less loss of space in renovation (Indirect costs, investment in R&D). Kingspan has also invested in new technologies which support energy efficient renovation, such as the investment in natural daylight and natural airflow building products (daylights and ventilation products). Our Light and Air division manufactures these products and has largely been built through M&A (Acquisitions). Funding of our organic and inorganic development has been enabled by our ability to access low cost capital, such as the €750m green Private Placement issued in 2020, which was the largest green corporate placing of its kind to date at that time. The weighted average interest rate was 1.78% and has favourable terms, aligned with meeting our sustainability objectives (Access to Capital, Liabilities).</p>
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C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

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

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2017

Covered emissions in base year (metric tons CO₂e)

373,639

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

10

Covered emissions in target year (metric tons CO₂e) [auto-calculated]

336,275.1

Covered emissions in reporting year (metric tons CO₂e)

302,991

% of target achieved [auto-calculated]

189.0809042953

Target status in reporting year

Achieved

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

Kingspan Group Plc commits to reduce absolute Scopes 1 and 2 GHG emissions 10% by 2025 from a 2017 base-year.

In 2021, Kingspan set a new science based targets (Scope 1+2, 90% reduction by 2030 - baseline 2020), aligned with 1.5oC. We will report on this new target in our next CDP submission.

Target reference number

Abs 2

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Base year

2017

Covered emissions in base year (metric tons CO2e)

3,197,016

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

10

Covered emissions in target year (metric tons CO2e) [auto-calculated]

2,877,314.4

Covered emissions in reporting year (metric tons CO₂e)

4,541,378

% of target achieved [auto-calculated]

-420.505246142

Target status in reporting year

Underway

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

In 2018, Kingspan Group plc committed to reduce absolute Scope 3 GHG emissions from purchased goods and services, business travel, transport and distribution, and end-of-life treatment of sold products 10% by 2025 from a 2017 base-year. As this target requires significant technological innovation and investment, we knew progress would not be linear. It also falls outside of our control, therefore we cannot directly implement this innovation. We are actively engaging with our raw material suppliers (who make up the majority >70% of our scope 3 emissions) on an ongoing basis to ensure we make meaningful progress towards this target in the coming years.

**Please note: the Kingspan Group grew substantially (revenue growth of 25%) between 2017 -2020 which the above base year figure calculation does not reflect. To reinforce our commitment to making reductions in our scope 3 emissions - In 2021, Kingspan re-baselined its SBTs (scope 3 from purchased goods and services, use of sold products and end-of-life treatment of sold products 42% by 2030) to account for business growth and to aligned with 1.5oC scenario and its ambitious new Planet Passionate decarbonisation targets. We will report on this new target in our next CDP submission.

Target reference number

Abs 3

Year target was set

2013

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 2 (market-based)

Base year

2013

Covered emissions in base year (metric tons CO₂e)

86,208

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2020

Targeted reduction from base year (%)

100

Covered emissions in target year (metric tons CO₂e) [auto-calculated]

0

Covered emissions in reporting year (metric tons CO₂e)

6,410

% of target achieved [auto-calculated]

92.5644951745

Target status in reporting year

Expired

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

Please explain (including target coverage)

In the reporting year, a 92.5% reduction in Scope 2 (market based) emissions was achieved from a base year emission level of 86,208 t/CO₂e in 2013 to 6,410 t/CO₂e in 2020. We will continue to work towards using 100% renewable electricity. This commitment is also reflected in our new, 1.5oC aligned science based target, set in 2021 (we will report on these targets in our next submission).

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: absolute or intensity

Absolute

Target type: energy carrier

All energy carriers

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

Base year

2020

Figure or percentage in base year

28

Target year

2030

Figure or percentage in target year

60

Figure or percentage in reporting year

28

% of target achieved [auto-calculated]

0

Target status in reporting year

New

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 our SBTs.

Please explain (including target coverage)

This target was set in 2020.

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	80	
To be implemented*	15	2,000
Implementation commenced*	56	4,100
Implemented*	23	13,382
Not to be implemented	6	

C4.3b

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

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

70

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

7,789

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

36,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

LED lighting

Initiative category & Initiative type

Non-energy industrial process emissions reductions

Process material substitution

Estimated annual CO2e savings (metric tonnes CO2e)

11,000

Scope(s)

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

<1 year

Estimated lifetime of the initiative

<1 year

Comment

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

108

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

20,200

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

125,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

LED lighting

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

52

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

9,500

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

61,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

LED lighting

Initiative category & Initiative type

Non-energy industrial process emissions reductions

Process material substitution

Estimated annual CO2e savings (metric tonnes CO2e)

549

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

39,000

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

156,000

Payback period

4-10 years

Estimated lifetime of the initiative

<1 year

Comment

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

Thermal fluid insulation installation

Estimated annual CO2e savings (metric tonnes CO2e)

161

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

20,500

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

21,000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

8.3

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

3,260

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

7,500

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

LED lighting

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

1.5

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

605

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

2,300

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

LED lighting

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

5.1

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

5,000

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

20,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

LED lighting

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

5.1

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

10,000

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

76,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

Wanson boiler replacement

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

12.4

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

18,400

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

15,000

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

Software Settings Optimization

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

31.8

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

34,000

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

136,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

LED lighting

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

25.6

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

1,850

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

32,000

Payback period

16-20 years

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)

27.7

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

6,000

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

24,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

1.9

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

2,000

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

14,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

166.7

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

15,850

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

0

Payback period

No payback

Estimated lifetime of the initiative

21-30 years

Comment

Investment was done by 3rd party, Kingspan will use the energy.

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO₂e savings (metric tonnes CO₂e)

513.3

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

2,125

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

0

Payback period

No payback

Estimated lifetime of the initiative

21-30 years

Comment

Investment was done by 3rd party, Kingspan will use the energy.

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO₂e savings (metric tonnes CO₂e)

188.4

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

5,500

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

0

Payback period

No payback

Estimated lifetime of the initiative

21-30 years

Comment

Investment was done by 3rd party, Kingspan will use the energy.

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO₂e savings (metric tonnes CO₂e)

56.5

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

7,500

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

0

Payback period

No payback

Estimated lifetime of the initiative

21-30 years

Comment

Investment was done by 3rd party, Kingspan will use the energy.

Initiative category & Initiative type

Low-carbon energy generation
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

328

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

13,000

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

0

Payback period

No payback

Estimated lifetime of the initiative

21-30 years

Comment

Investment was done by 3rd party, Kingspan will use the energy.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

6

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

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

2,500

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

5,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

58

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

16,000

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

0

Payback period

No payback

Estimated lifetime of the initiative

16-20 years

Comment

Installed at landlord costs

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

6

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

5,000

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

10,000

Payback period

1-3 years

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	We have employee engagement programmes related to reduction in energy use. 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	Kingspan invests widely in measures for emissions reduction. In addition to the growing purchase of energy from renewable sources, the company has invested in a number of on-site renewable energy generation projects - often using its own products. This provides the added benefits of showcasing the potential of integrated renewables.

<p>Dedicated budget for low-carbon product R&D</p>	<p>Kingspan places considerable emphasis on research and development of existing and new products and on the improvement of the production process, focused primarily on extending competitive advantage.</p> <p>In 2020, our research and development expenditure amounted to Euro33.1m (2019: Euro31.9m). Research and development expenditure is generally expensed in the year in which it was incurred. In 2020 we launched the award winning Daylite Kapture skylight and continued to progress development on the following key projects:</p> <ul style="list-style-type: none"> - PV solar-integrated PowerPanel® 2.0; - Fibre-free A1 classified AlphaCore® insulation; - QuadCore™ 2.0; - Kooltherm® 200 series; - Unitised facade solutions; - Digitalisation of the construction industry; and - Prismatic daylighting.
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C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

Kingspan provides a range of insulation, daylighting, natural ventilation and renewable energy products for the purpose of saving energy and mitigating greenhouse gas emissions, including insulated panels, insulation board, rooflights, solar shading, wall-lights, airflow management systems and Solar PV panels. We also provide installation and ongoing maintenance services for these systems.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Evaluating the carbon-reducing impacts of ICT

% revenue from low carbon product(s) in the reporting year

60

Comment

In 2020, Kingspan invested €33.1M (2019, €31.9M) in R&D - predominantly focused on the development of resource efficient products - 60% of Kingspan's revenue was generated from low carbon products in 2020.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

291,771

Comment

In 2020, having achieved Net Zero Energy (NZE), we entered the second phase of our sustainability journey, which is driven by our ambitious Planet Passionate strategy. This transition was also accompanied by a move to a new, more robust and thorough sustainability platform, which came with a different set of methodologies and emission factors. Correspondingly, we decided to set 2020 as our new base year. This will allow for a fairer and more accurate comparison of our progress to 2030 and is also in line with our new SBT (set in 2021 with 2020 as the base year). Prior year emissions are publicly available to interested stakeholders via our CDP submissions.

*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)

65,772

Comment

In 2020, having achieved Net Zero Energy (NZE), we entered the second phase of our sustainability journey, which is driven by our ambitious Planet Passionate strategy. This transition was also accompanied by a move to a new, more robust and thorough sustainability platform, which came with a different set of methodologies and emission factors. Correspondingly, we decided to set 2020 as our new base year. This will allow for a fairer and more accurate comparison of our progress to 2030 and is also in line with our new SBT (set in 2021 with 2020 as the base year). Prior year emissions are publicly available to interested stakeholders via our CDP submissions.

Scope 2 (market-based)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

6,410

Comment

In 2020, having achieved Net Zero Energy (NZE), we entered the second phase of our sustainability journey, which is driven by our ambitious Planet Passionate strategy. This transition was also accompanied by a move to a new, more robust and thorough sustainability platform, which came with a different set of methodologies and emission factors. Correspondingly, we decided to set 2020 as our new base year. This will allow for a fairer and more accurate comparison of our progress to 2030 and is also in line with our new SBT (set in 2021 with 2020 as the base year). Prior year emissions are publicly available to interested stakeholders via our CDP submissions.

C5.2

(C5.2) 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)

291,771

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

65,772

Scope 2, market-based (if applicable)

6,410

Comment

C6.4

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

Source

Non-manufacturing facilities

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 (if applicable)

Emissions are not relevant

Explain why this source is excluded

Scope 1+2 emissions exclude non-manufacturing sites on the basis that the majority of the CO₂e emissions are generated from manufacturing sites. The emissions excluded are not believed to be material; emissions are estimated at less than 0.5% of overall scope 1 and 2 emissions (market-based). We are considering including them in our boundary in the future.

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

Metric tonnes CO₂e

3,997,323

Emissions calculation methodology

Input-Output analysis based on spend data.

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

0

Please explain

Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2 - 8.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

37,427

Emissions calculation methodology

Input-Output analysis based on spend data.

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

0

Please explain

Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year.

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

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

32,736

Emissions calculation methodology

We used the consumption of fuels and electricity in the reporting year and applied relevant emissions from various sources, including DEFRA and IEA. GWP source: IPCC AR4.

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

0

Please explain

Fuel and energy related activities not included in Scope 1 or 2 are calculated at the site level based on their electricity and fuel consumption. This category is comprised of T&D losses, WTT, and WTT for T&D losses.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

139,623

Emissions calculation methodology

Input Output analysis based on spend data.

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

0

Please explain

Spending on third -party transport and distribution services (e.g. ocean freight, air freight) during the reporting year. Excluding business travel.

Waste generated in operations

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

4,607

Emissions calculation methodology

We use actual waste generation figures collected from our sites and apply the relevant emission factors for each waste fraction/waste disposal method combination.

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

0

Please explain

Disposal and treatment of waste generated in our operations in the reporting year in facilities not owned by Kingspan - based on physical data for tonnages.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

23,917

Emissions calculation methodology

Input Output analysis based on spend data.

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

0

Please explain

Business travel spend delivered by a third party. Spend data was allocated to categories (e.g. train travel, air travel, hotel accommodation) based on estimates found in literature.

Employee commuting

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

20,669

Emissions calculation methodology

Hybrid IO/process-based analysis using WRI Scope 3 Tool estimate scaled by country.

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

0

Please explain

Emissions estimated based on employee numbers and typical commuting emissions/spend by country/region.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

This category - upstream leased assets is not applicable to Kingspan.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

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

Please explain

This category - Processing of sold products is not applicable to Kingspan.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

406,213

Emissions calculation methodology

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

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

380,515

Emissions calculation methodology

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

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

0

Please explain

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

This category - Downstream leased assets is not applicable to Kingspan.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

This category - Franchises is not applicable to Kingspan.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

This category - Investments is not applicable to Kingspan.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

This category - Other (upstream) is not applicable to Kingspan.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

This category - Other (downstream) is not applicable to Kingspan.

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	4,810	

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

0.0000656

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

302,991

Metric denominator

unit total revenue

Metric denominator: Unit total

4,617,000,000

Scope 2 figure used

Market-based

% change from previous year

1

Direction of change

Decreased

Reason for change

We restated our 2019 data (compared to our 2020 CDP submission) due to a major change of methodology. In 2020, we moved to a robust sustainability software, which had an impact on our reported figures, mainly due to the use of more detailed emissions factors. The restated intensity figure for 2019 is: 0.00006625. The decrease is largely due to emission reduction activities and purchase of renewable certification in 2020.

Intensity figure

19.23

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

302,991

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

15,757

Scope 2 figure used

Market-based

% change from previous year

12

Direction of change

Decreased

Reason for change

We restated our 2019 data (compared to our 2020 CDP submission) due to a major change of methodology. In 2020, we moved to a robust sustainability software, which had an impact on our reported figures, mainly due to the use of more detailed emissions factors. The restated intensity figure for 2019 is 22. The decrease is largely due to emission reduction activities and purchase of renewable certification in 2020.

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	11,198.3	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	48.4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	16.4	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	280,508	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
----------------	--------------------------------------

Ireland	0
United Kingdom of Great Britain and Northern Ireland	35
Belgium	0
Australia	451
United Arab Emirates	156
Iran (Islamic Republic of)	26
India	202
France	0
Czechia	0
Poland	0
Hungary	0
Turkey	455
Germany	0
Finland	0
Norway	0
Romania	0
Russian Federation	260
Slovakia	0
Latvia	0
United States of America	279,223
Canada	393
Mexico	92
Colombia	195
Brazil	8,329
Panama	8
Spain	1,944
Netherlands	0
China	2
Saudi Arabia	0

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	15,946.62
Insulation Boards	273,232.38
Water & Energy	45
Light and Air	728
Access Floors	1,819

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Ireland	3,062	0	9,434	9,434
United Kingdom of Great Britain and Northern Ireland	9,475	0	40,639	40,639
Belgium	3,145	0	15,040	15,040
Australia	1,995	1,996	2,484	0
United Arab Emirates	2,123	2,122	4,080	0
India	928	928	1,234	0
France	609	0	10,387	10,387
Czechia	2,423	0	6,467	6,467
Poland	7,261	0	10,387	10,387
Hungary	534	0	2,068	2,068
Turkey	607	607	1,304	0
Germany	3,375	0	9,008	9,008
Finland	931	0	6,845	6,845
Romania	334	0	998	998
Russian Federation	596	596	1,670	0
United States of America	13,125	0	39,466	39,466

Canada	516	0	6,496	6,496
Mexico	216	22	475	427
Colombia	81	7	504	461
Brazil	1,149	0	11,517	11,517
Netherlands	6,660	0	16,605	16,605
Iran (Islamic Republic of)	67	67	127	0
Norway	12	0	981	981
Slovakia	144	0	510	510
Latvia	53	0	151	151
Panama	27	27	157	0
Spain	6,287	0	25,176	25,176
Saudi Arabia	4	4	7	0
China	34	34	55	0

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	32,053	3,625
Insulation Boards	23,728	2,385
Water & Energy	2,750	362
Light and Air	2,749	38
Data & Flooring Technology	4,492	0

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	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	8,310	Decreased	2.6	In 2020, there was a reduction of 8,310 tCO2e in respect of changes in renewable energy consumption. Scope 1 and 2 emissions in the previous year were 314,380 tCO2e (restated 2019 emissions). Therefore the calculation was $(-8,310/314,380)*100 = -2.6\%$. The reduction related to the purchase of renewable energy (both directly from the grid and via certification).
Other emissions reduction activities	17,404	Decreased	5.5	In 2020, there was a reduction of 17,404 tCO2e due to emission reduction activities. Scope 1 and 2 emissions in the previous year were 314,380 tCO2e (restated 2019 emissions). Therefore the calculation was $(-17,404/314,380)*100 = -5.5\%$. The reduction related to the various emissions reduction initiatives, including the substitution of process materials -see 4.3b).
Divestment	396	Decreased	0.13	In 2020, there was a reduction of 396 tCO2e related to divestment. Scope 1 and 2 emissions in the previous year were 314,380 tCO2e (restated 2019 emissions). Therefore the calculation was $(-396/314,380)*100 = -0.13\%$. The tCO2e saved is as a result of the sale of several sites during the year.
Acquisitions	88	Increased	0.03	In 2020, there was an increase of 88 tCO2e related to the acquisition of new sites. Scope 1 and 2 emissions in the previous year were 314,380 tCO2e (restated 2019 emissions). Therefore the calculation was $(88/314,380)*100 = 0.03\%$.

Mergers	0	No change	0	not applicable
Change in output	8,684	Increased	2.8	In 2020, there was an increase n of 8,684 tCO ₂ e related to change in output. Scope 1 and 2 emissions in the previous year were 314,380 tCO ₂ e (restated 2019 emissions). Therefore the calculation was $(8,684/314,380)*100 = 2.8\%$. The increase can be attributed to an increase in demand leading to increased output.
Change in methodology	1,062	Increased	0.3	In 2020, there was an increase n of 1,062 tCO ₂ e related to change in methodology. Scope 1 and 2 emissions in the previous year were 314,380 tCO ₂ e (restated 2019 emissions). Therefore the calculation was $(1,062/314,380)*100 = 0.3\%$. The increase can be attributed to a change in emission factor sources (we moved to a new system in 2020).
Change in boundary	0	No change	0	Not applicable
Change in physical operating conditions	0	No change	0	Not applicable
Unidentified	5	Increased	0.002	In 2020, there was an increase n of 5 tCO ₂ e related to unidentified reasons. Scope 1 and 2 emissions in the previous year were 314,380 tCO ₂ e (restated 2019 emissions). Therefore the calculation was $(5/314,380)*100 = 0.002\%$.
Other	73	Increased	0.02	In 2020, there was an increase n of 73 tCO ₂ e related to other reasons. Scope 1 and 2 emissions in the previous year were 314,380 tCO ₂ e (restated 2019 emissions). Therefore the calculation was $(73/314,380)*100 = 0.02\%$.

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)	HHV (higher heating value)	18,300	365,300	383,600
Consumption of purchased or acquired electricity		144,200	76,300	220,500

Consumption of purchased or acquired heat		1,500	2,600	4,100
Consumption of self-generated non-fuel renewable energy		11,020		11,020
Total energy consumption		175,020	444,200	619,220

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	No
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	No

C8.2c

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

276,953

Emission factor

0.18162

Unit

metric tons CO₂ per MWh

Emissions factor source

1. 2020 UK Government GHG Conversion Factors for Company Reporting
2. Australian National Greenhouse Accounts Factors. August 2019.
3. Energy in Ireland. 2019 Report
4. EPA Center for Corporate Climate Leadership. Emission Factors for Greenhouse Inventories
5. National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada.
6. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

Emission factor is a weighted average.

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

22,245

Emission factor

0.25511

Unit

metric tons CO_{2e} per MWh

Emissions factor source

1. 2020 UK Government GHG Conversion Factors for Company Reporting
2. Energy in Ireland. 2019 Report
3. EPA Center for Corporate Climate Leadership. Emission Factors for Greenhouse Inventories
4. National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada.
5. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

Emission factor is a weighted average.

Fuels (excluding feedstocks)

Residual Fuel Oil

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

23,806

Emission factor

0.2668

Unit

metric tons CO2 per MWh

Emissions factor source

1. 2020 UK Government GHG Conversion Factors for Company Reporting
2. Energy in Ireland. 2019 Report
3. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

Emission factor is a weighted average.

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

39,355

Emission factor

0.2085

Unit

metric tons CO2 per MWh

Emissions factor source

1. 2020 UK Government GHG Conversion Factors for Company Reporting
2. Australian National Greenhouse Accounts Factors. August 2019.
3. Energy in Ireland. 2019 Report
4. EPA Center for Corporate Climate Leadership. Emission Factors for Greenhouse Inventories
5. National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada.
6. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

Emission factor is a weighted average.

Fuels (excluding feedstocks)

Biogas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

8,776

Emission factor

0.00021

Unit

kg CO2 per KWh

Emissions factor source

2020 UK Government GHG Conversion Factors for Company Reporting

Comment

Fuels (excluding feedstocks)

Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2,309

Emission factor

0.2466

Unit

metric tons CO2 per MWh

Emissions factor source

1. 2020 UK Government GHG Conversion Factors for Company Reporting
2. Energy in Ireland. 2019 Report
3. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

Emission factor is a weighted average.

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	15,820	11,020	15,820	11,020
Heat	13,200	13,200	13,200	13,200
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

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

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Poland

MWh consumed accounted for at a zero emission factor

41,950

Comment

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

6,766

Comment

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United States of America

MWh consumed accounted for at a zero emission factor

12,500

Comment

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Colombia

MWh consumed accounted for at a zero emission factor

461

Comment

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Canada

MWh consumed accounted for at a zero emission factor

1,437

Comment

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Mexico

MWh consumed accounted for at a zero emission factor

427

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Belgium

MWh consumed accounted for at a zero emission factor

10,887

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Brazil

MWh consumed accounted for at a zero emission factor

2,672

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Canada

MWh consumed accounted for at a zero emission factor

2,021

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Czechia

MWh consumed accounted for at a zero emission factor

4,045

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Finland

MWh consumed accounted for at a zero emission factor

5,767

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

7,199

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Hungary

MWh consumed accounted for at a zero emission factor

2,069

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Ireland

MWh consumed accounted for at a zero emission factor

9,435

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Netherlands

MWh consumed accounted for at a zero emission factor

16,216

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Norway

MWh consumed accounted for at a zero emission factor

981

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Poland

MWh consumed accounted for at a zero emission factor

4,395

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Spain

MWh consumed accounted for at a zero emission factor

9,431

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

38,933

Comment

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United States of America

MWh consumed accounted for at a zero emission factor

30,004

Comment

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Brazil

MWh consumed accounted for at a zero emission factor

8,845

Comment

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

8,747

Metric numerator

tCO2e

Metric denominator (intensity metric only)

% change from previous year

Direction of change

Please explain

According to the WRI GHG Protocol, non-HFC process emissions (which are non-Kyoto Protocol greenhouse gases), should not be included in Scope 1 emissions and should be reported separately.

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

 FY20 Kingspan Assurance Statement-ASRauthorized.pdf

Page/ section reference

pages 1&2

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 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

 FY20 Kingspan Assurance Statement-ASRauthorized.pdf

Page/ section reference

Pages 1&2

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 (upstream & downstream)

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

 FY20 Kingspan Assurance Statement-ASRauthorized.pdf

Page/section reference

Pages 1&2

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, but we are actively considering verifying within the next two years

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 originated or purchased any project-based carbon credits within the reporting period?

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.

Objective for implementing an internal carbon price

Drive energy efficiency

GHG Scope

Scope 1

Scope 2

Application

An internal carbon pricing is used in decision making processes related to driving energy efficiency improvements throughout the business. An implicit carbon price is used for capital expenditure projects related to energy efficiency measured at manufacturing site level, its use can influence the viability of the project and its ultimate approval based on potential energy and carbon savings to the business.

Actual price(s) used (Currency /metric ton)

30

Variance of price(s) used

A differentiated pricing approach is used owing to the global nature of the business. The pricing may vary depending on the region, business unit or type of decision.

Type of internal carbon price

Implicit price

Impact & implication

An internal carbon pricing is used in decision making processes related to driving energy efficiency improvements throughout the business: When considering investment in energy efficiency projects the full realisable financial benefit to the company is considered in the assessment. The standard payback period of 2 years is extended in some cases when the project provides significant energy and carbon saving opportunities. An example of this is a LED lighting project at our site in Poland. The project had a 3 year payback on investment but achieved an estimated annually savings of 206 tCO₂e and over €44,000. Using an internal carbon price helped to influence the viability of the project and its ultimate approval based on the potential annual energy/carbon savings and its contribution towards achieving our Group climate related goal of reach net zero energy by 2020.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism

% of suppliers by number

38

% total procurement spend (direct and indirect)

70

% of supplier-related Scope 3 emissions as reported in C6.5

88

Rationale for the coverage of your engagement

Kingspan believes all suppliers should have a climate change mitigation strategy and greenhouse gas emission (GHG) reduction targets as part of their performance objectives and measure progress against those targets annually. Suppliers are a critical partner in Kingspan's value chain and significantly impact our ability to deliver on our value chain carbon reduction targets and climate change mitigation strategies. It is therefore critical that Kingspan addresses climate related issues within its supply chain.

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

- o Verified (existing) Science Based Scope 3 Target:
 - o 10% absolute reduction in Scope 3 emissions by 2025 from a 2017 baseline.
 - o Verified (new – June 2021*) Science Based Scope 3 Target: 42% reduction in scope 3 emissions by 2030 from a 2020 baseline)
 - o Planet Passionate target: 50% CO2 intensity reduction in products from primary supply partners by 2030 from a 2020 baseline.

Failure to engage with our suppliers and actively work towards reducing upstream

carbon emissions could negatively impact customer preferences in the future. Supply chain transparency helps Kingspan to evaluate impact, foresee risks, and identify opportunities to improve environmental, social, and economic performance. All suppliers are evaluated by the same process and includes areas such as quality, environmental management and CSR commitments. Suppliers must adhere by our divisional ethical purchasing policies which outlines the expectations on suppliers on environmental protection, labour practices, and human rights.

Impact of engagement, including measures of success

Kingspan prioritises engagement with critical raw material suppliers who represent over 70% of the Group's total spend and 88% of its scope 3 emissions and are therefore critical to the successful achievement of its verified science-based scope 3 emissions target. Kingspan's supplier engagement strategy involves strong cross functional working relationships between our procurement and sustainability functions, along with support from the senior management teams as required.

The procurement and sustainability teams have bi-weekly progress reviews (reviewing supplier data, target trajectory mapping etc) and quarterly meetings with the senior management team. Together they conduct supplier meetings, electronic communications and when possible, site visits.

Kingspan works closely with the sustainability departments of its suppliers to better understand their sustainability goals and future plans to reduce their environmental impacts. Kingspan also proactively provides customer feedback on the urgent need to rapidly reduce carbon intensity.

Measures of Success: In 2020 Kingspan measures of success are an indication of: -

- Develop better understanding of the carbon emissions profile of key suppliers across different regions and mapping of target trajectory scenarios to 2030. This has been successfully achieved based on the information available today, we expect to revisit these discussions annually as our supplier's strategy advance.
- Stronger business relationships across geographical regions have been formed with ongoing bi-weekly dialogue between Procurement and Sustainability teams along with direct discussion at CEO level.
- Kingspan Supplier Day: In November 2019 we held our annual Supplier Forum with specific focus given to our new sustainability programme. Productive discussions and 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. Unfortunately, due to COVID-19, we were unable to have a supplier day in 2020. To ensure continued progress throughout 2020 we continued our engagement via video conference meetings. Our next Supplier Day is scheduled for Q4 2021.

Comment

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

38

% total procurement spend (direct and indirect)

70

% of supplier-related Scope 3 emissions as reported in C6.5

88

Rationale for the coverage of your engagement

Suppliers are a critical partner in Kingspan's value chain and significantly impact our ability to deliver on our value chain carbon reduction targets and climate change mitigation strategies. It is therefore critical that Kingspan addresses climate related issues within its supply chain. Kingspan has made two public commitments to reduce scope 3 GHG emissions:

- o Verified (existing) Science Based Scope 3 Target: 10% absolute reduction in Scope 3 emissions by 2025 from a 2017 baseline.
- o Verified (new – June 2021*) Science Based Scope 3 Target: 42% reduction in scope 3 emissions by 2030 from a 2020 baseline)
- o Planet Passionate target: 50% CO₂ intensity reduction in products from primary supply partners by 2030 from a 2020 baseline.

In order to meaningful progress towards our target Kingspan must actively engage with these suppliers on an ongoing basis to obtain company and product level carbon emissions data, obtain updates on each supplier's progress towards their GHG emission goals and monitor progress towards its scope 3 target. Supplier engagement is generally prioritised by magnitude of expenditure.

Kingspan's focus is on its critical suppliers who make up over 70% of our total spend and 88% of scope 3 emissions. Failure to engage with our suppliers and actively work towards reducing upstream carbon emissions could negatively impact customer preferences in the future. Supply chain transparency helps Kingspan to evaluate impact, foresee risks, and identify opportunities to improve environmental, social, and economic performance. All suppliers are evaluated by the same process and includes areas such as quality, environmental management and CSR commitments. Suppliers must adhere by our divisional ethical purchasing policies which outlines the expectations on suppliers on environmental protection, labour practises, and human rights.

Impact of engagement, including measures of success

Measures of Success: In 2020, Kingspan measures of success are an indication of:

- Group Level: Supplier Data Requests: Some suppliers are at different stages of their

company level carbon reporting and greenhouse gas emission 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. We believe this has been successful engagement to date as more suppliers have now committed to developing and providing Kingspan with the data required to track progress against our targets. We will continue to work with all suppliers and work towards closing any data gaps as we progress.

- Divisional Level: Questionnaires and/or requests are sent to selected suppliers to capture GHG/carbon emission data and to understand their strategy to reduce emissions. In particular, related to the products that they supply to Kingspan. By way of example, Kingspan Insulation and Kingspan Panels UK have gained BES 6001 accreditation which contains within it a supply chain management module.

Understanding Supplier Behaviour: Measures of Success:

In 2020 Kingspan measures of success are an indication of: Better oversight of the GHG emissions profile of different suppliers across different regions. The climate related success of this engagement is that it enables Kingspan to make more informed decisions based on the data we have obtained from our suppliers, this enables us to advocate for lower emissions products based on knowledge of GHG emissions quantities per material type across different regions and suppliers. Based on the information obtained, we will use information to develop material specific benchmarks that will be monitored year on year.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

62

% of customer - related Scope 3 emissions as reported in C6.5

15.6

Please explain the rationale for selecting this group of customers and scope of engagement

We aim to educate and inform customers about how our products can help to reduce the overall energy demand of buildings throughout their lifespan, helping to combat climate change through sustainable building design. 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 62%) 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

A positive measure of success from our climate related engagement strategy has been the increased use and contribution of our solutions on multiple BREEAM rated projects across Europe including 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.

Another successful outcome has been the creation of 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. We have experienced increased demand for product EPD information year on year which has informed our EPD development programs across the divisions.

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.

Type of engagement

Other, please specify
Ongoing educational updates

Details of engagement

Other, please specify
Ongoing educational updates

% of customers by number

62

% of customer - related Scope 3 emissions as reported in C6.5

15.6

Please explain the rationale for selecting this group of customers and scope of engagement

We 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 62%) 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

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. A successful outcome of our climate related engagement strategy includes increased dialogue and stronger collaborative relationships with our key clients 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.

Another 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.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Kingspan's climate related engagement strategy with other partners in the value chain is centered around increasing awareness and action on climate related issues in the built environment. We engage with multiple partners across our value chain including (but are not limited to) architects, engineers, developers, sustainability professionals, climate scientists and end clients. We aim to educate and inform value chain partners about how our products and energy efficiency in general can help to reduce the overall energy demand of buildings throughout their lifespan, helping to combat climate change through sustainable building design. We engage with value chain partners through different mediums including meetings, collaborative projects, and events. 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.

CASE STUDY: An example of our engagement with our value chain partners was in the development of our Planet Passionate programme focus areas and targets. We gain feedback from multiple value chain partners that helped to reinforce our internal feedback on the most material environmental topics to the business in the short, medium and long term. Management and awareness of climate related issues is central to our product offering, sustainability reporting, marketing and communication strategy. A positive outcome of this engagement is that our partners provided input into in our climate change strategy. In April 2021, we launched our inaugural Planet Passionate report. The report details our progress in 2020 and steps we are taking to achieve our targets. We will continue to engage with our value chain stakeholders as we progress our strategy over the coming years.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Carbon tax	Support	Kingspan has been active through its trade association connections in seeking to promote the adoption of	Extension of carbon taxation or other fuel/energy tax based on some relief for high energy intensity

		an internalised cost of energy/ fuels to compensate for artificially low prices of the last 20 years.	processes in order to focus on the lower level wider built environment. Carbon taxation at the asset level might offer better focus, where appropriate benchmarks can be established.
Energy efficiency	Support	Kingspan is active in promoting a Fabric First approach to the built environment in all jurisdictions in which it operates. This is often through direct responses to government consultation on future building regulations. Kingspan bases its responses on the fact that fabric upgrades are the most reliable and long-lasting mitigation measure, particularly in new buildings and deep refurbishments, where they can also be amongst the most cost-effective measures.	Increased recognition within government legislation of the need for fabric upgrades across all areas of the building environment, including public, commercial, industrial and residential sectors. The case for this is set out in terms of lifetime costing principles in order to overcome the short-comings of traditional payback justification methods.
Clean energy generation	Support	Kingspan has first and foremost sought to lead by example. In this regard, further investment has occurred on substantial on-site renewable energy facilities at key sites (e.g. anaerobic digestion at Pembridge, solar PV on a number of sites, and biomass generation at Hull). The company has also invested heavily in the development of roof-mounted solar PV systems for the wider market through Kingspan Energy. These activities provide case studies which are being used to support trade association inputs to governments on the capabilities and practicality of low-carbon solutions.	Kingspan is seeking to build confidence within local and national governments in order to promote further supportive legislation towards the implementation of building-integrated renewables. This may involve the further deployment of Feed-in-Tariffs, ROCs etc.
Adaptation or resilience	Support	Kingspan Environmental has increased the focus on developing sustainable water solutions through its involvement with the Rainwater Harvesting Association. In parallel, and consistent with its approach provide exemplars, the company continues to manufacture and install	From a legislative perspective, Kingspan would like to see regulation that seeks to highlight the true societal value of water and the need to actively manage the resource - recognising that this will vary worldwide by region.

		rainwater harvesting and storm water attenuation systems.	
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C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

EPIC (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Engineered Panels in Construction (EPIC) supports an integrated approach to achieving building energy efficiency and sees well-engineered fabric as a key component of this agenda. It is therefore an advocate of the fabric first approach.

How have you influenced, or are you attempting to influence their position?

Yes. Currently acting as director & Chairman.

Trade association

EPFA (Europe)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

European Phenolic Foam Association (EPFA) supports the use of highly efficient fabric insulation in the construction of new buildings and the refurbishment of existing buildings. Particular efforts are made to influence European Building Regulations for both new build and refurbishment.

How have you influenced, or are you attempting to influence their position?

Yes. Acting as an officer at trade association level

Trade association

Insulation Manufacturers Association - IMA (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Insulation Manufacturers Association (IMA) supports the use of highly efficient fabric insulation in the construction of new buildings and the refurbishment of existing buildings. Particular efforts are made to influence UK Building Regulations for both new build and refurbishment.

How have you influenced, or are you attempting to influence their position?

Yes. Acting as an officer at trade association level

Trade association

PU Europe (Europe)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

PU Europe supports the use of highly efficient fabric insulation in the construction of new buildings and the refurbishment of existing buildings. Particular efforts are made to influence European Building Regulations for both new build and refurbishment.

How have you influenced, or are you attempting to influence their position?

Yes. Currently two Kingspan personnel are acting as Managing Board members.

Trade association

EuroACE (Europe)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

EuroACE promotes greater focus on the built environment across the EU as a source of energy and carbon savings for both energy security and climate mitigation purposes. As an organisation, it pays close attention to the comparative performance of Member States in their efforts to reduce carbon emissions related to the built environment.

How have you influenced, or are you attempting to influence their position?

Yes. Membership and active contribution. Acting as board member.

Trade association

EU-ASE (Europe)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

EU-ASE, the European Alliance for Saving Energy supports energy efficiency improvements across Europe and is particularly involved in lobbying in Brussels for energy efficiency targets to be included in the 2030 EU Climate & Energy Policy Framework.

How have you influenced, or are you attempting to influence their position?

Yes. Membership and our CEO is a Board Member.

Trade association

Insulation Australasia

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Insulation Australasia supports energy efficiency improvements.

How have you influenced, or are you attempting to influence their position?

Yes. Membership and acting as President.

Trade association

AFIA (Australia)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Australia Foil Insulation Association Supports energy efficiency improvements.

How have you influenced, or are you attempting to influence their position?

Yes. Membership and active contribution.

Trade association

Pan & Pro Europe (Europe)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

PAN and PRO EUROPE is an international insulated sandwich-panels and steel profiles manufacturers association founded to promote the interest of its members and to

contribute to their continuous technical and commercial development. The association contribute to a better co-operation among its members in every respect. Pan & Pro is involved in several initiatives from the European Commission and National Authorities to develop regulation on the issue of sustainability & climate change including Ecodesign directive, ecolabel, energy labelling & Energy Performance of Buildings Directive.

How have you influenced, or are you attempting to influence their position?

Managing Committee member

Trade association

CPA (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Construction Products Association covers a broad range of issues relating to the marketing and use of construction products, but has technical and sustainable construction committees which focus on issues related to climate change impact in the built environment.

How have you influenced, or are you attempting to influence their position?

Yes. Members of both the Technical Committee and the Sustainable Construction Committee.

Trade association

SPRA (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Single Ply Roofing Association is promoting and supporting a particularly energy efficient means of roofing which integrates insulation into the structure.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan hold a Directorship, which facilitates significant influence on the direction of the Association.

Trade association

ACE (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Association for the Conservation of Energy (ACE) is a lobbying organisation seeking to provide data to support energy efficiency measures of all types. It is extremely active, in part through its role as Secretariat to the British Energy Efficiency Federation (BEEF) which has regular meetings with UK Government officials on energy and climate change issues.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a member of the Governing Council and also sponsors appropriate events.

Trade association

SWIGA (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Solid Wall Insulation Guarantee Agency (SWIGA) is a body which promotes and supports the extension of solid wall insulation as a key strategic renovation strategy within property portfolios which were constructed prior to the advent of cavity construction.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a Director of SWIGA.

Trade association

INCA (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Insulated Render and Cladding Association (INCA) is specifically engaged in the promotion and support of the external wall insulation (EWI) industry, which is another key strategy for insulating older properties during renovation.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a Technical, Marketing and Strategy Committee member

Trade association

OFTEC (UK)

Is your position on climate change consistent with theirs?

Mixed

Please explain the trade association's position

Although its history was in oil heating, and particularly the certification of installation staff, the Association has branched successfully into promoting renewable heating technologies.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan are Co-opted Board Members

Trade association

RHA (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Rainwater Harvesting Association is promoting the wider consideration of efficient use of water resources which can be scarce in some areas.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan, as a manufacturer of rainwater management equipment is assisting in developing the growth strategy for this sector.

Trade association

Micropower Council (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Micropower Council has recently re-branded as the Sustainable Energy Association and is responsible for promoting the case for micro-generation in the built environment, often by commissioning landmark studies and reports in the sector.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member.

Trade association

Irish GBC (Ireland)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Irish Green Building Council (GBC) is, like its various sister organisations around the world, seeking to promote excellence in sustainable buildings through LEED and other related initiatives.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member.

Trade association

DWEA (USA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Distributed Wind Energy Association (DWEA) seeks to promote and represent the installation and functioning of independent wind turbines and other non-grid wind energy devices.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member.

Trade association

RenewableUK (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

RenewableUK is the most significant non-for-profit trade association in the country seeking to promote the uptake of renewable energy generation across the country.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member.

Trade association

Scottish Renewables (UK)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The representative body of the Scottish Renewable Energy industry since 1996.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member and seeking to support the growth of the sector in Scotland.

Trade association

USEPA GPLC (USA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The US Environmental Protection Agency Green Power Leadership Club is a partnership program facilitated by the US EPA. Its primary purpose is to promote the attainment of high levels of green power purchasing across organisations. Kingspan is ranked in the Leadership Club within this scheme.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active participant.

Trade association

US GBC (USA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The US Green Building Council is the originator of the LEED program and promotes the construction, renovation and operation of sustainable buildings across the USA and beyond.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a Charter Member and actively participates in the Environmental Product Declaration (EPD) Coalition.

Trade association

Canadian GBC (Canada)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Canadian Green Building Council (GBC) is, like its various sister organisations around the world, seeking to promote excellence in sustainable buildings

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a Charter Member.

Trade association

CBE (USA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Center for the Built Environment is an active collaboration between Industry and Universities which was launched originally through UCA Berkeley. The mission is to improve environmental quality and energy efficiency of buildings.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a Founder Member of this collaborative activity.

Trade association

ASHRAE (USA)

Is your position on climate change consistent with theirs?

Mixed

Please explain the trade association's position

American Society of Heat, Refrigeration and Air-conditioning Engineers (ASHRAE) is globally influential in assessing environmental impacts of building services and also setting standards to drive improvements in efficiency.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member.

Trade association

MCA (USA)

Is your position on climate change consistent with theirs?

Mixed

Please explain the trade association's position

Metal Construction Association (MCA) is a fairly broad organisation targeted at promoting the use of metal products in buildings. It covers metal-faced insulating panels manufactured by Kingspan as part of its remit under the Insulated Metal Panel Council.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member.

Trade association

BCSE (USA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Business Council for Sustainable Energy (BCSE) addresses energy efficiency, natural gas and renewable energy initiatives right across the USA.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member and has sponsored the 2015 edition of the Sustainable Energy in America Factbook.

Trade association

HPBCCC (USA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The High Performance Building Congressional Caucus Coalition (HPCCC) was formed to heighten awareness and inform policymakers about the major impact of buildings have on our health, safety and welfare and the opportunities to incorporate solutions.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan has sponsored Caucus meetings as well as engaging in a number of discussions on potential solutions.

Trade association

GBI (USA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Green Buildings Initiative is seeking to bring forward new standards (e.g. GreenGlobes) in the field of sustainable construction in order to augment those being practiced under LEED.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan has been actively involved in the revision of GreenGlobes (an ANSI standard) and engages in other support activities for GBI.

Trade association

TIPSASA (South Africa)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

TIPSASA focuses on the Thermal Insulation Industry with particular emphasis on promotion of energy saving products and systems.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is an active member of the Technical Committee and is a National Executive Council member.

Trade association

XPSA

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

XPXA promotes the benefits of extruded polystyrene in North America. XPS has net positive energy conservation and air emission benefits when used in residential and commercial buildings over their normal life spans (typically between 15 to 50 years).

How have you influenced, or are you attempting to influence their position?

Kingspan is an active member.

Trade association

PUR-Gruppen

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

PUR-Gruppen promotes the energy efficiency benefits of polyurethanes / polyisocyanurate insulation in Sweden. They want to show that PUR can be an important part of a sustainable society and the PUR industry takes responsibility for safe production.

How have you influenced, or are you attempting to influence their position?

Kingspan is an active member and acts as a board member.

Trade association

NVPU

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

NVPU promotes the use of rigid urethane insulation in the Netherlands. The NVPU strives for a healthy business environment, the sustainable use of raw materials and products and focuses on reducing the use of energy.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a board member.

Trade association

Stybenex

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Stybenex promotes the use of styrene based insulation in the Netherlands as an energy saving product.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a the Chairman

Trade association

IVPU

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

IVPU promotes the use of rigid urethane insulation in Germany. IVPU states the most important prerequisite for energy-efficient houses is an excellent thermal insulation.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a board member.

Trade association

Modern Building Alliance (Europe)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Modern Building Alliance is an alliance of trade associations and companies representing the plastics industry in the construction sector. By engaging with policy makers and stakeholders, we are committed to supporting the EU in ensuring safe and sustainable construction for people across Europe.

How have you influenced, or are you attempting to influence their position?

Yes. Kingspan is a board member.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

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.

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 Planet Passionate Report 2020 ipaper.pdf

Page/Section reference

Our Planet Passionate report is a live ipaper document - link:

<https://viewer.ipaper.io/kingspan/planet-planet-passionate-annual-report/?page=80>

Our climate change governance, strategy, risk & opportunities, emission's figures and targets feature throughout the report and appendices.

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Comment

C15. 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.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms