C0. Introduction

C0.1

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

Klöckner Pentaplast (kp) has a broad product portfolio across a variety of polymers, and specialises in two core service lines: food packaging and pharma, health & protection, and durables.

kp is a plastics manufacturer that is purpose-driven to deliver the sustainable protection of everyday needs. Our experts create innovative films and trays such as blister packaging that provide product safety, help avoid food waste, safeguard medication and medical devices, and protect the integrity of countless durable products with our pharmaceutical packaging.

We innovate, design and manufacture for sustainable solutions that our customers use to package and protect products in daily situations around the globe. And we understand our obligation and responsibility to champion a circular economy where plastics are a source of valuable raw material.

In 2021, kp launched "Investing in Better", a broad and ambitious sustainability strategy with then time-bound and measurable long-term targets. The strategy is built around three main objectives:

- **Close the loop:** we will reduce waste and do more with less. This objective commits us to using more recycled material, closing the packaging loop and taking every opportunity to make our packaging recyclable.

- **Work Smarter:** we have a responsibility to use as few resources as possible, as efficiently as possible. That's why we are focused on using less energy, cutting carbon emissions and ending landfill.

- **Act Responsibly:** Acting responsibly at all times is a cornerstone of our culture. And in the future, we will do an even better job of keeping our people engaged, while we continue to focus on safety, and becoming a more diverse company.

C0.2

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

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
No

Select the number of past reporting years you will be providing Scope 1 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for
<Not Applicable>

C0.3

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

Argentina
Australia
Belarus
Canada
China
France
Germany
Italy
Poland
Russian Federation
Spain
Switzerland
Thailand
Turkey
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.

Operational control

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	Primarily responsible for our strategic plan, risk appetite and systems of internal control and governance – all of which are underpinned by sustainability. Climate-related issues are a standing topic, with progress on our science-based targets regularly reported, and updates on the risk profiles reviewed as part of the full and half-year reporting cycle
Board Chair	The Board and Executive Leadership team, led by the Chief Executive Officer, have ultimate responsibility for delivering sustainable value to our shareholders and other stakeholders

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Overseeing value chain engagement	<Not Applicable>	Through our governance structures, our leadership assesses risks related to sustainability, and specifically, climate. The Board and Executive Leadership team, led by the Chief Executive Officer, have ultimate responsibility for delivering sustainable value to our shareholders and other stakeholders. Responsibility for analysing climate-related risks sits with the Sustainability Committee with key risks and opportunities being promptly communicated to key decision makers. In addition, the Board and Executive Leadership Team receive updates on overall enterprise risks, via the Enterprise Risk Process, as part of the ongoing full and half-year reporting cycle. This provides an overview of our principal risks and includes details of new and emerging risks. Centralised and integrated policies, procedures and guidance ensure effective risk management and mitigation across our two divisions and at each of our sites and are under continuous review and updates

C1.1d

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

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Our Board of Directors is primarily responsible for our strategic plan, risk appetite and systems of internal control and governance – all of which are underpinned by sustainability. Climate-related issues are a standing topic, with progress on our science-based targets regularly reported and updates on the risk profiles reviewed as part of the full and half-year reporting cycle.. At present we dedicate significant efforts to familiarize the Board of Directors with climate-related issues, both in relation to kp as well as in general context.	<Not Applicable>	<Not Applicable>

C1.2

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

Position or committee
Chief Executive Officer (CEO)

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

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
The Board and Executive Leadership team, led by the Chief Executive Officer, have ultimate responsibility for delivering sustainable value to our shareholders and other stakeholders.

The oversight and management of kp's global sustainability strategy – Investing in Better – (which includes climate-related risks and opportunities) is led by our VP Sustainability, who reports to our Chief Executive Officer. However, given that climate change and the associated risks and opportunities have been identified as key strategic issues, ownership and governance for the delivery of our sustainability commitments are embedded across the business.

The Executive Board's oversight of climate-related matters covered both the risk-related and GHG reduction strategies. The Chief Financial Officer was responsible for the financial risk-related aspects and the VP Sustainabilitys had oversight of the GHG reduction. Climate is integrated into the company's enterprise risk management (ERM) process and reviewed by the Board of Directors as part of the Board's annual risk assessment

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
Chief Executive Officer (CEO)

Type of incentive
Monetary reward

Incentive(s)
Bonus – set figure

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in absolute emissions

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

Further details of incentive(s)
The CEO's compensation is tied to the following success metrics in the short term (1) EBITDA and (2) Free Cash Flow. These financial indicators will benefit from the company achieving its GHG emissions Scope 1&2 reduction target, as the performance is directly tied to the interest rates for the Term Loan to the US Market

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The interest rates are determined by the degree of achievement of the reduction targets of GHG emissions which includes scope 1 and scope 2.

Entitled to incentive
Other, please specify (Maintenance manager)

Type of incentive
Non-monetary reward

Incentive(s)
Internal company award

Performance indicator(s)
Reduction in total energy consumption

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

Further details of incentive(s)
Energy performance is tracked and reviewed on a monthly basis by our Global Energy Taskforce. Our Taskforce teams comprise around 100 'energy champions' across our sites who are highly innovative, continually optimising operations to reduce usage by tackling issues like compressed air leaks, inefficient water pumps, and heat loss. The sites that have performed best are recognised for their achievement.

End of year performance is used as part of the Maintenance bonus scheme. End of year performance is used as part of the Maintenance bonus scheme, in some sites we do provide a financial reward for meeting energy performance target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

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Entitled to incentive
Energy manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Reduction in absolute emissions
Energy efficiency improvement

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

Further details of incentive(s)
End of year performance is used as part of the Energy Manager bonus scheme. End of year performance is used as part of the Energy bonus scheme, in some sites we do provide a financial reward for meeting energy performance target.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The bonus is determined by the degree of achievement of the reduction in energy consumption and the targets of GHG emissions which includes scope 1 and scope 2.

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	
Medium-term	5	10	
Long-term	10	30	

C2.1b

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

We define substantive financial / strategic impact as per the following definitions in our risk management framework, which has also been used when assessing climate risk in order to integrate that into our core business strategies:

Marginal: Risk is easily mitigated by normal day to day processes. Impact of €0 to €0.1 million Euro.

Moderate: Limited impact on future investment plans. Impact of €0.1 to €1 million Euro.

Significant: Unlikely to compromise kp's 'licence to trade', but a short term impact on kp's ability to refinance at acceptable rates. Impacts future investment plans at strategic level. Impact of €1 to €5 million Euro.

Critical: Approaching risks limit. Could compromise 'licence to trade'. Unable to secure sufficient funding. Permanent or serious damage to kp's future/operations. Impact of €5 to €15 million Euro.

Catastrophic: Reached risk limit. Immediately compromises 'licence to trade'. Unable to secure funding. kp's future in doubt. Impact > €50 million

C2.2

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

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
A specific climate-related risk management process

Frequency of assessment
Every two years

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

Description of process
In 2022 we partnered with SUST Global to undertake a climate risk scenario assessment across all our operational sites globally, which are scattered across 5 continents and 18 countries, as well as key supply chain locations across the world. Both acute and chronic physical risks originating from climate change were considered. To enhance the scenario evaluations, we combined quantitative and qualitative analysis, alongside knowledge of our business and operating environment. The scope of the exercise focused on predicted risk over a period of 5, 10 and 30 years and took into account different scenarios.

To help us fully understand the impact of climate change on our business, we worked with independent sustainability consulting firm DNV to conduct an extensive climate risk assessment for the business, building on and including the climate scenario analysis on physical risks to our operating sites with SUST Global data.
DNV undertook surveys and interviews with internal and external stakeholders to provide an in-depth picture of our climate risk and opportunity landscape. Following the survey and interview process, a workshop was held with internal stakeholders, including members of the Executive Leadership Team and the Sustainability Committee, to validate the findings. These pieces of work are informing a roadmap to address our short-, medium-, and long-term climate-related risks and opportunities.

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	Our risk management process is based on international best practice, and our robust Enterprise Risk Process framework is present across divisions and across markets. Each site systematically manages its environmental management, energy management and quality processes to ensure compliance with regulations and our own policies. Climate-related risks are being identified and we're feeding our planned mitigation strategies into our risk framework to ensure these issues have clear ownership and are regularly reviewed. Compliance with existing climate-related regulations is a requirement for all our sites and our businesses
Emerging regulation	Relevant, always included	kp faces aces potential risks arising from emerging regulations aimed at fostering adaptation to climate change. These risks are relevant to various aspects of our business, including our operations, inventory transportation, and the products and services we offer. Such regulations may introduce both opportunities and downside risks for the company. It is important to note that these regulations can arise unexpectedly, necessitating a proactive approach to stay compliant and take advantage of any opportunities. For example, regulations in Europe and associated technical solutions may result in increased supply prices for manufacturers. There could also be potential penalties imposed due to inability to comply with new climate change regulations
Technology	Relevant, always included	It is key for kp to keep monitoring the transition to new, lower emission technologies, products, and services. Failing to do so, may lead to the company falling behind competition, breaching regulations or failing to meet consumer expectations/new trends At kp we have identified an opportunity to keep investing in technologies e.g. 'super clean technology', new equipment/retrofitting equipment and designing for chemical recycling to continue driving towards circularity. Circularity is closely linked to reduced environmental impact, in particular a reduction in Scope 3 GHG emissions
Legal	Relevant, always included	At kp, we work to ensure legal compliance in relation to climate issues and other matters, so climate-related legal risks are always included in the process. Anticipated regulations in the EU, and consumer behaviours, are pushing for recyclability and circularity. kp is at risk of having a product portfolio (and associated stock / assets) that does not meet circularity regulations and / or expectations. This poses a risk to kp's licence to operate. Circularity is closely linked to reduced environmental impact, in particular a reduction in Scope 3 GHG emissions (e.g. upstream: capital goods, fuel and energy related activities; downstream: use of sold products, and end-of life treatment). Reducing, re-using, and recycling is a key component of reducing GHG emissions.
Market	Relevant, always included	Shifts in supply and demand for commodities, products, and services as climate related risks are increasingly considered (e.g., demand for low carbon products, customer requirement for a product's carbon footprint to meet certain standards, customer requirement for a business to join specific international carbon reduction initiatives).
Reputation	Relevant, always included	kp is aware of potential reputational risks due to kp may not being able to deliver on its sustainability commitments or address all its material sustainability/ climate-related risks, which may result in reputational damage . As a result we have built a roadmap on how to achieve our different targets. We are also aware of potential corporate reputational risks due to concerns risen regarding plastic and its negative associations. We see this as an opportunity to educate or lobby around the value and functionality of plastics and lead with kp's advanced expertise in the industry and the differentiators of its complex products. We're transitioning our portfolio constantly to ensure all our products are fully recyclable, contain as much recycled content as possible and are part of the solution, not part of the problem. In 2022, to ensure timely delivery of quality products to our customers, we put significant effort into consolidating our position to maximise business resilience and to deliver strategic transformations.
Acute physical	Relevant, always included	Physical risks have the potential to impact manufacturing sites (facilities and infrastructure), water and raw material availability, and supply chains. Linked to this are direct financial consequences, as well as up-front insurance and investment-related costs Given we have a global footprint and operate facilities all over the world, where we have already faced some extreme weather events, we wanted to gain further insight into the frequency and potential severity of these extreme weather events so we can be better prepared and take mitigating actions. Climate-related risks are being identified and we're feeding our planned mitigation strategies into our risk framework to ensure these issues have clear ownership and are regularly reviewed. For example kp has has already experienced flooding and drought in the US and in Spain, which has allowed it to build resilience in the process. However, extreme weather events are likely to become more frequent and disruptive globally, and kp should manage these risks proactively. We also found that impacts from potential acute risks are far higher than from chronic risks (down to assumed scale of impact and duration of downtime)
Chronic physical	Relevant, always included	Physical risks have the potential to impact manufacturing sites (facilities and infrastructure), water and raw material availability, and supply chains. Linked to this are direct financial consequences, as well as up-front insurance and investment-related costs Given we have a global footprint and operate facilities all over the world, where we have already faced some extreme weather events, we wanted to gain further insight into the frequency and potential severity of these extreme weather events so we can be better prepared and take mitigating actions. For example, kp's manufacturing sites are exposed to physical climate risks, particularly to heatwaves and water stress, which have direct implications for staff comfort and kp's operations

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?

Direct operations

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Consumers are actively phasing out plastic from their purchasing decisions due to negative associations with environmental pollution and microplastic health concerns. As a plastics manufacturer, kp is at risk of decreasing demand/sale as alternatives to plastic such as paper or bio-plastics become increasingly popular. Talent attraction at kp

may also suffer due to the perception that the industry is not sustainable.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Low

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

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
100000

Potential financial impact figure – maximum (currency)
1000000

Explanation of financial impact figure
We worked with independent sustainability consulting firm DNV to conduct an extensive climate risk assessment for the business. Part of this work involved a survey sent to internal and external stakeholders. Market risk was majority scored as having a 'Moderate' impact over the long-term, which was defined as an impact of €0.1 to €1 million €, according to our ERM scoring framework.

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 2

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

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services

Primary potential financial impact
Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

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

Company-specific description
Fast evolving legislative requirements in the EU (namely the draft Packaging and Packaging Waste Regulation and regulation 2022/1616) and consumer behaviours, are pushing for recyclability and circularity. kp is at risk of having a product portfolio (and associated stock / assets) that does not meet circularity regulations and / or expectations. This poses a risk to kp's licence to operate in terms of potential fines for not complying with regulations and a potential loss of sales and market share as products that demonstrate circularity / recyclability become preferred.

Time horizon
Long-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)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
100000

Explanation of financial impact figure
We worked with independent sustainability consulting firm DNV to conduct an extensive climate risk assessment for the business Part of this work involved a survey sent to internal and external stakeholders. Policy & legal risk was majority scored as having a 'Marginal' impact over the long-term, which was defined as an impact of €0 to €0.1 million €, according to our ERM scoring framework.

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier

Risk 3

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

Risk type & Primary climate-related risk driver

Reputation	Increased stakeholder concern or negative stakeholder feedback

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

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

Company-specific description
There is a risk that kp may not be able to deliver on its sustainability commitments or address all of its material sustainability / climate-related risks because kp's targets on recyclability and recycled content may be constrained by regulations set in the EU and associated supply and demand of recycled material. The impact of not being able to deliver on sustainability commitments could be reputational damage for not doing enough to meet the targets or being fined as a result.

Time horizon
Long-term

Likelihood
About as likely as not

Magnitude of impact
Medium-high

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

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
5000000

Potential financial impact figure – maximum (currency)
15000000

Explanation of financial impact figure
We worked with independent sustainability consulting firm DNV to conduct an extensive climate risk assessment for the business . Part of this work involved a survey sent to internal and external stakeholders. Reputation risk was majority scored as having a 'Critical' impact over the long-term, which was defined as an impact of €5 to €15 million €, according to our ERM scoring framework.

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 4

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

Risk type & Primary climate-related risk driver

Technology	Transitioning to lower emissions technology

Primary potential financial impact
Increased direct costs

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

Company-specific description
Recycled materials are expected to increase in price and suppliers are expected to increase their costs as they invest in technological sustainability solutions. There is a risk that kp's customers may not be willing to pay higher premiums to cover the increased costs. The potential price 'premium' could negatively impact profit margins and business continuity.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium

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

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
1000000

Potential financial impact figure – maximum (currency)
5000000

Explanation of financial impact figure
We worked with independent sustainability consulting firm DNV to conduct an extensive climate risk assessment for the business. Part of this work involved a survey sent to internal and external stakeholders. Technology risk was majority scored as having a 'Significant' impact over the long-term, which was defined as an impact of €1 to €5 million €, according to our ERM scoring framework.

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 5

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

Risk type & Primary climate-related risk driver

Chronic physical	Other, please specify (Supply chain disruptions due to physical climate risks affecting kp suppliers.)

Primary potential financial impact
Other, please specify (Increased direct costs and / or shortages in raw material sourcing.)

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

Company-specific description
Physical climate risks pose a threat to kp's suppliers and dependencies on single source suppliers need to be carefully managed to address vulnerabilities within kp's supply chain. kp may be impacted by high volatility in raw material prices and supply chain disruptions could impact production output, leading to costly delays in delivering products to customers, or even loss of business.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 6

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

Risk type & Primary climate-related risk driver

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Our Changzhou site was deemed at risk of flooding through our physical climate risk analysis conducted by a third-party (Sust Global) in 2022.

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, a single figure estimate

Potential financial impact figure (currency)
610000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our lost production volume in million EUR figure was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. 0.61 million is the figure estimated for our Changzhou site.

Cost of response to risk
10200000

Description of response and explanation of cost calculation
Our Rebuild Cost (Declared Insurance Exposure) figure for acute flooding risk at our Chanzou site was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022.

Comment

Identifier
Risk 7

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

Risk type & Primary climate-related risk driver

Acute physical	Cyclone, hurricane, typhoon

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Our Changzhou and Suzhou sites were deemed at risk of cyclones through our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. This risk could impact kp's business in a number of ways, for instance:
• Employee access to sites might be impacted.
• Physical damage to assets and machinery.
• Impact to production volumes due to downtime.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
11260000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our lost production volume in million EUR figure was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. This total figure of 11.26 million is made up of 0.61 million at our Changzou site and 10.65 million at our Suzhou site.

Cost of response to risk
55700000

Description of response and explanation of cost calculation
Our Rebuild Cost (Declared Insurance Exposure) figure for acute cyclone risk at our Changzou and Suzhou sites were calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. This total figure of 55.70 million is made up of 10.2 million EUR at our Changzou site and 45.50 million EUR at our Suzhou site.

Comment

Identifier
Risk 8

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

Risk type & Primary climate-related risk driver

Acute physical	Wildfire

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Our Cotia site was deemed at risk of wildfires through our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. This risk could impact kp's business in a number of ways, for instance:
• Employee access to sites might be impacted.
• Physical damage to assets and machinery.
• Impact to production volumes due to downtime.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
23730000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our lost production volume in million EUR figure was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. This total figure of 23.73 million is made up of 5.74 million EUR at our Totoral site and 17.99 million at our Cotia site.

Cost of response to risk
102420000

Description of response and explanation of cost calculation
Our Rebuild Cost (Declared Insurance Exposure) figure for acute wildfire risk at our Totoral and Cotia sites were calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. This total figure of 102.42 million is made up of 35.92 million EUR at our Totoral site and 66.50 million EUR at our Cotia site.

Comment

Identifier
Risk 9

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

Risk type & Primary climate-related risk driver

Chronic physical	Heat stress

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Our following sites: Cotia, Changzou, Suzhou, Gendorf, Verona, Berinoro Infia, Santo Tirso, Girona, Pontivy and Valencia Infia) are deemed at risk of heatwaves (as per a high emissions SSP5-RCP8.5 scenario) as identified through our physical climate risk analysis conducted by a third-party (Sust Global) in 2022.

Increased frequency and magnitude of heatwaves may lead to staff discomfort and impact our operations. Investment in cooling systems may be required as climate adaptation measures, which could come at a cost, both financially and in carbon terms to kp.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
6400000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our lost production volume in million EUR figure was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. Below is breakdown of the figure per site:
Cotia 0.5 million EUR
Changzou 0.02 million EUR
Suzhou 0.3 million EUR
Pontivy 1.3 million EUR
Gendorf 1.8 million EUR
Verona 0.2 million EUR
Berinoro Infia 1.1 million EUR
Santo Tirso 0.8 million EUR
Girona 0.3 million EUR
Valencia Infia 0.1 million EUR

Cost of response to risk
1200000

Description of response and explanation of cost calculation
Our Mitigation Capex figure for chronic risks was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. Below is a breakdown of the figure per site:
Cotia 200,000 EUR
Changzou 25,000 EUR
Suzhou 50,000 EUR
Pontivy 200,000 EUR
Gendorf 150,000 EUR
Verona 50,000 EUR
Berinoro Infia 200,000 EUR
Santo Tirso 150,000 EUR
Girona 100,000 EUR
Valencia Infia 100,000 EUR

Comment

Identifier
Risk 10

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

Risk type & Primary climate-related risk driver

Chronic physical	Water scarcity

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Our following sites: Totoral, Melbourne, Changzhou, Suzhou, Bertinoro Infia, Valencia Infia and Gebze) are deemed at risk of water stress (as per a high emissions SSP5-RCP8.5 scenario) as identified through our physical climate risk analysis conducted by a third-party (Sust Global) in 2022.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2500000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Our lost production volume in million EUR figure was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. Below is breakdown of the figure per site:
Totoral 0.2 million EUR
Melbourne 0.4 million EUR
Changzou 0.02 million EUR
Suzhou 0.3 million EUR
Bertinoro Infia 1.1 million EUR
Valencia Infia 0.1 million EUR
Gebze 0.5 million EUR

Cost of response to risk
700000

Description of response and explanation of cost calculation
Our Mitigation Capex figure for chronic risks was calculated as part of our physical climate risk analysis conducted by a third-party (Sust Global) in 2022. Each of the seven sites were estimated to have a potential financial impact figure of 100,000 EUR.

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?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Other, please specify (R&D and investment to increase recycled content and recyclability of products)

Primary potential financial impact
Other, please specify (Increased revenues from sales of resource-efficient products)

Company-specific description
We recognise that investment in technologies such as chemical recycling, new equipment / retrofitting equipment and 'super clean technology' are opportunities to transition to a circular economy. Adopting circular economy principles allows us to capture significant material value and reduce emissions. That's why we are transitioning to products that are both more recyclable and which incorporate as much recycled content as possible. That's why we're investing in these opportunities through partnering with other organisations in our value chain. Projects such as BARYR and RPET-Q are just two examples of the vital work we are doing on this:
• Project BARYR is helping develop decontamination technologies needed to guarantee food safety during the manufacturing of food packaging that contains PCR material originating from PET pots, tubs and trays already used in food packaging.
• The RPET-Q project aims to use chemical recycling technologies to discover which complex packaging materials could eventually produce viable rPET, with a particular interest in recycling techniques based on glycolysis.
These projects allow us to engage and collaborate with leading universities and research and technology centres. Both have received funding from the IDEPA and EU for the execution of research and development projects in the Principality of Asturias (Spain).

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
These projects have both have received funding from the IDEPA and EU for the execution of research and development projects in the Principality of Asturias

Comment

Identifier
Opp2

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
Investing in and transitioning to renewable energy presents a significant opportunity for kp to reduce its dependency on grid energy and mitigate risks associated with the volatility in grid energy prices. As such we have developed a renewable energy deployment roadmap to systematically assess the opportunity for renewable energy in our factories. In line with this roadmap, we implemented four solar power systems in 2022 and are underway on ten more similar installations.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
High

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

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
300000

Potential financial impact figure – maximum (currency)
500000

Explanation of financial impact figure
kp's energy costs would have been between 300,000 and 500,000€ more if the implementation of the onsite renewable programme would have not progressed.

Cost to realize opportunity
100000

Strategy to realize opportunity and explanation of cost calculation
The strategy to realize this opportunity is our renewable energy deployment roadmap. kp choses to install renewable energy systems using PPA without spending upfront capital. kp commits to leasing the equipment over a 10 year period

Comment

Identifier
Opp3

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

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced direct costs

Company-specific description
Energy efficiency forms one of our key company targets. We have set the following target: by 2025, we will increase energy efficiency by 17% against a 2019 baseline.

Time horizon
Long-term

Likelihood
Very likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
2022 was a year of disruption in global energy supply, with severe impacts on the manufacturing sectors around the world. Our business resilience was put to the test by these developments, as a result our energy strategy aims for energy efficiency first. We apply state-of-the-art energy management, and our teams understand that the most sustainable energy is the energy you don't use in the first place. We will work hard to ensure kp's production is efficient and aligned with our GHG emissions reduction roadmap. We are also expanding the scope of our renewable energy roadmap, which itself includes efficiency measures.
In response to the volatility of energy prices in 2022, we identified '16 quick wins' for sites to implement, in addition to the existing 150 best practices outlined by the Energy Taskforce.

Comment

Identifier
Opp4

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

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Reduced water usage and consumption

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Within our direct operations, water is used predominantly for cooling in the manufacturing processes. We do not use significant volumes, because our manufacturing processes are not water-intensive. Nonetheless, we actively track and monitor several KPIs to drive water stewardship.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Our water programme has three dimensions: minimising consumption, planning and tackling water related risks, and ensuring safe water discharge into the environment. While we decided not to set an enterprise-wide goal for water stewardship as part of our current strategy, our teams have been working on this topic and continued to apply good practice in 2022.All sites have a water management plan in place, adapted to local conditions.
We use a variety of tools to manage and monitor risk at site level; for instance, we have assessed water risks at all kp facilities guided by a combined water stress index based on the WWF's Water Risk Filter and WRI's Aqueduct tool. Impacts relating to withdrawal, consumption and discharge are particularly important in water-stressed areas, so our assessments help identify sites exposed to the greatest risk.

Comment

Identifier
Opp5

Where in the value chain does the opportunity occur?
Upstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Other, please specify (Collaboration and partnership)

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

Company-specific description
We have identified an opportunity to leverage kp's influence to create 'taskforces' with key customers, suppliers, local communities and other stakeholders, to help explore climate change mitigation and adaptation strategies that would benefit all players within a localised system.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Please select

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Strong partnerships are key to stable supply across the value chain and we are committed to expanding this programme as quickly as possible. We have already signed up to a number of voluntary commitments and collaborative initiatives including: ANZPAC Plastics Pact, CEFLEX, Circular Plastics Alliance, HolyGrail 2.0, New Plastics Economy, NEXTLOOPP, UK Plastics Pact.

Comment

C3. Business Strategy

C3.1

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

Row 1

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

Publicly available climate transition plan
Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan
We have a different feedback mechanism in place

Description of feedback mechanism
Prior to launching our Investing in better strategy in 2021, we identified a full list of topics in 2020 that was evaluated by internal experts. The process was informed by a substantial series of interactions, such as customer collaborations, interviews with senior management, an employee feedback survey, ongoing discussions with investors, working with associations, regulatory engagement and rating agency consultations. This involved more than 30 inputs, such as non-governmental organisation reports and media reviews, as well as peer and customer reports relating to impacts within kp and the plastic packaging sector. In the validation phase, the materiality assessment results were reviewed by our leadership team and senior managers; we continue to seek input to inform our understanding of material topics across the value chain.

To help us fully understand the impact of climate change on our business, we worked with independent sustainability consulting firm DNV to conduct an extensive climate risk assessment for the business, building on and including the climate scenario analysis on physical risks to our operating sites with SUST Global data.

DNV undertook surveys and interviews with internal and external stakeholders to provide an in-depth picture of our climate risk and opportunity landscape. Internal stakeholders included members from different departments including Procurement, Operations, HR, Legal, Governance, Divisional Leadership, Sustainability. While the external stakeholders included suppliers, associations, and investors. Following the survey and interview process, a workshop was held with internal stakeholders, including members of the Executive Leadership Team and the Sustainability Committee, to validate the findings.

Frequency of feedback collection
Annually

Attach any relevant documents which detail your climate transition plan (optional)
kp_Strategy_Brochure_210226.pdf
kp_TCFD_230627.pdf
kp_Sustainability Report 2022_230627.pdf

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

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

C3.2

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

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

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios: RCP 2.6	Facility	<Not Applicable>	As part of our physical climate risk assessment conducted by Sust Global, we assessed this scenario referred to as 'Strong Mitigation'. This scenario covers the optimal sustainable path, also referred to as the Green Road (SSP1-RCP2.6). It encompasses socioeconomic and representative emissions pathways consistent with a gradual and pervasive global shift towards a more sustainable future. Carbon emissions begin to decline around 2020 and global mean temperatures rise approximately 1.8°C by 2100, a key goal of the Paris Climate Agreement.
Physical climate scenarios: RCP 4.5	Facility	<Not Applicable>	As part of our physical climate risk assessment conducted by Sust Global, we assessed this scenario referred to as 'Middle of the Road'. This scenario covers a middle path, with challenges to climate mitigation (SSP2-RCP4.5). In this scenario, environmental systems experience degradation, and climate change worsens through the end of the century. In this scenario, overall emissions continue to rise through mid-century before beginning to decline. This is a likely scenario if governments and policy reflect a strong sense of urgency towards climate adaptation. Global mean temperatures rise approximately 2.4°C by 2100, but greater emissions raise the risk of tipping points.
Physical climate scenarios: RCP 8.5	Facility	<Not Applicable>	As part of our physical climate risk assessment conducted by Sust Global, we assessed this scenario referred to as 'High Emissions'. This scenario covers a future where the world continues on its current trajectory, also referred to as Fossil-Fuelled Growth (SSP5-RCP8.5). Global markets are increasingly integrated and both total population and per-capita consumption increase. Emissions peak around 2090 and global mean temperatures rising approximately 4.3°C by 2100.

C3.2b

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

Row 1

Focal questions

What are the short-term effects on kp's market performance, operating costs, and supply chain management until 2030, considering kp's 1.5°C Science-Based Targets Initiative (SBTi) climate-related targets and trajectory?

How will kp's operations, supply chain, and market developments be influenced by the physical forces and impacts beyond 2030 to 2040, assuming a business-as-usual scenario with increasing GHG emissions and higher GHG concentration projections?

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

kp understands that to demonstrate leadership on sustainability, it is critical to engage across a range of material issues. Increasingly, the interconnectivity of sustainability topics is becoming clearer, and climate-related issues often act as a connection that ties many of these issues together. The ability to talk about climate issues in an informed way, with a quantitative viewpoint, is essential to ensure the appropriate decisions are made for the business.

We partnered with SUST Global to undertake a climate risk scenario assessment across all our operational sites globally, which are scattered across 5 continents and 18 countries, as well as key supply chain locations across the world. Both acute and chronic physical risks originating from climate change were considered. The scope of the exercise focused on predicted risk over a period of 5, 10 and 30 years.

None of the physical or chronic hazards that were flagged indicated business-critical impacts, however flooding, cyclones and wildfires were flagged as an acute risk for 3 sites, and water stresses and heatwaves could pose chronic hazards at 15 sites under the high emissions (SSP5-RCP8.5) scenario.

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	We are investing our time, focus and energy in becoming a better, more sustainable business.We're transitioning our portfolio constantly to ensure all our products are fully recyclable, contain as much recycled content as possible and are part of the solution, not part of the problem. kp's Investing in better strategy has a key objective "Close the loop", which focuses on using more recycled content, closing the packaging loop and taking every opportunity to make our packaging recyclable. The most substantial decision we have made in 2022 in this area is that even though in a challenging market related to recycled content we put significant effort into consolidating our position to maximise business resilience and to deliver strategic transformations.We also worked more with brands and thermoformers to increase the amount of PCR materials in our consumer packaging films. Activities such as this, where PCR content is increasingly useful in a range of different products, means that market demand goes up, which in turn encourages more recycling. For this to work, kp's products must be made of plastic that is collected, sorted and aggregated into defined streams for recycling, and that has market value. While our overall recyclable share increased 2% to 30% in 2022, we now have recyclable alternatives for 63% of our overall product portfolio versus 54% last year. Description of how our strategy has been influenced by climate-related risks and/or opportunities we recognise that investment in technologies such as chemical recycling, new equipment / retrofitting equipment and 'super clean technology' are opportunities to transition to a circular economy. Adopting circular economy principles allows us to capture significant material value and reduce emissions. That's why we are transitioning to products that are both more recyclable and which incorporate as much recycled content as possible. kp's additional investment in manufacturing capacity for PCR films is growing our production volumes, strengthening our ability to make more use of PCR material.
Supply chain and/or value chain	Yes	We recognise that sustainability impacts are related to various operators across a product's value chain. After carrying out our first GHG Inventory for our 2019 baseline, we identified that approximately 90% of our total carbon emissions come from things we buy, and not what we do in our direct operations. The most substantial decision we have made in 2022 in this area is that we refreshed our supplier engagement programme by engaging with our top 50 suppliers, which were selected based on their overall Scope 3 contribution. During this process of engagement, we educated and supported suppliers with training materials that aim to accelerate GHG emission reductions. Description of how our strategy has been influenced by climate-related risks and/or opportunities we have gathered primary data from those suppliers and through a formal validation process that has helped us ensure our findings are correct, and we aim to report back on further progress next year.
Investment in R&D	Yes	We cannot become truly sustainable without continuously improving our products. That's why our experts work hard to balance the needs of our planet with the needs of our customers by creating better products which serve a circular economy. Description of how our strategy has been influenced by climate-related risks and/or opportunities: Our innovation-focused teams are always working hard to develop better trays and films which both better meet the requirements of customers and are more sustainable – generating less carbon and incorporating more recycled content and/or designed for recyclability. A key focus of our investing in better strategy is to develop new products which will typically involve setting sustainability criteria and running pilot tests with key customers. The most substantial decision we have made in 2022 is to keep driving investment in R&D. We innovate to solve the climate-related challenges faced by our industry. We have received funding from the IDEPA and EU for the execution of two research and development projects in the Principality of Asturias (Spain).Projects such as BARYR and RPET-Q are just two examples of the vital work we are doing. These projects allow us to engage and collaborate with leading universities and research and technology centres. Project BARYR is helping develop decontamination technologies needed to guarantee food safety during the manufacturing of food packaging that contains PCR material originating from PET pots, tubs and trays already used in food packaging. The RPET-Q project aims to use chemical recycling technologies to discover which complex packaging materials could eventually produce viable rPET, with a particular interest in recycling techniques based on glycolysis.
Operations	Yes	We understand that the climate crisis is already here, and that our role as a plastics manufacturer means we have a part to play in limiting global warming to well below 2°C and to pursue efforts to limit warming to 1.5°C in line with the 2015 Paris Agreement. We believe that there is much we can do to change how we work, so that we are as efficient as possible, and ultimately release less and less carbon into the atmosphere over time. As such our Investing in better strategy has a key objective "Work Smarter", which focuses on using as few resources as possible as efficiently as possible. We have made several climate-related public commitments – central to these are our science based targets for all emission scopes The most substantial decision we have made to date in this area is the development of a renewable energy deployment roadmap to systematically assess the opportunity for renewable energy in our factories. In line with this roadmap, we implemented four solar power systems in 2022 (Rayong, Santo Tirso, Valencia and Pravia) and are underway on ten more similar installations. Second, in 2022 we embarked on qualitative and quantitative climate modeling across our operations to assess our portfolio's resilience under different external conditions, as part of our TCFD report Description of how our strategy has been influenced by climate-related risks and/or opportunities We have now increased the amount of renewable energy used for three years in a row. Using more renewable energy helps us not only meet our emissions reduction goals, but also to secure our supplies of energy. By using 52% of electricity from renewable sources, we avoided the generation of 91,000 tCO2 equivalent directly from our operations.

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	Direct costs Capital expenditures Access to capital	Climate related risks and opportunities have influenced kp's financial planing., more specifically on direct costs, capital expenditures and access to capital. 2022 was a year of disruption in global energy supply, with severe impacts on the manufacturing sectors around the world and direct costs were directly impacted.. Our business resilience was put to the test by these developments, with the result our strategy now focuses to an even greater degree on energy efficiency. In response to the volatility of energy prices in 2022, we identified '16 quick wins' for sites to implement, in addition to the existing 150 best practices outlined by the Energy Taskforce. The inclusion of the ESG Ratchet in our new financing arrangements back in 2021, provides kp with an opportunity to continue to prove our commitment to sustainability and strong governance, which has already been recognised by markets, and deliver on our ambition to be the most sustainable company in the plastic packaging industry. Based on the Company's historical performance, kp is well-positioned to achieve the three KPIs established as part of the ESG Ratchet. If any of the (i) PCR Target (ii) GHG Target and/or (iii) Diversity Target (each of (i) to (iii) being, an "ESG Trigger") meets the Company's pre-defined 2023 targets, a certain discount is applied to the Term Loan B for each ESG Trigger that meets the 2023 targets. If the Company underperforms a certain pre-agreed lower buffer in relation to any ESG Trigger, a certain premium is applied to the Term Loan B for each ESG Trigger, which underperforms the lower buffers.

C3.5

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

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

C4. Targets and performance

C4.1

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

Absolute target
Intensity target

C4.1a

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

Target reference number
Abs 1

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

Target ambition
1.5°C aligned

Year target was set
2020

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Base year
2019

Base year Scope 1 emissions covered by target (metric tons CO2e)
24418

Base year Scope 2 emissions covered by target (metric tons CO2e)
266826

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
291244

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Target year
2025

Targeted reduction from base year (%)
50

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
145622

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
20475

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
145558

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
166034

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

% of target achieved relative to base year [auto-calculated]
85.9828872011097

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
The emissions targets and progress , including this target, are based on the new Sustainability Strategy launched by kp in 2020. Targets have been approved by SBTi in September 2021, following a 1.5C pathway.

Plan for achieving target, and progress made to the end of the reporting year
We are making good progress on our goal to halve our operational emissions (Scope 1 and 2) by the end of 2025. GHG emissions reduction at kp is 'lean and green'. Being lean means using the minimum possible amount of energy, followed by green energy supply from renewables. In 2022, we reduced our operational emissions by 43% (2019 baseline; 2021: 24%). Both energy efficiency and the use of renewable electricity were vital to achieving this outstanding result. By the end of 2022, 52% of our electricity was generated from renewable sources (2021: 28%). We have now increased the amount of renewable energy used for three years in a row. Using more renewable energy helps us not only meet our emissions reduction goals, but also to secure our supplies of energy

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

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

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

Target ambition
1.5°C aligned

Year target was set
2020

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 10: Processing of sold products
Category 12: End-of-life treatment of sold products

Intensity metric
Other, please specify (metric tons CO2e per tonne of raw material)

Base year
2019

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
2.347

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
0.206

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
48.046

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)
2.574

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
2.574

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
<Not Applicable>

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure
94

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure
100

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure
100

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
76

% of total base year emissions in all selected Scopes covered by this intensity figure
76

Target year
2029

Targeted reduction from base year (%)
20.4

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
2.048904

% change anticipated in absolute Scope 1+2 emissions
0

% change anticipated in absolute Scope 3 emissions
-0.2

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
2.06

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
0.199

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
67.318

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)
2.275

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

2.275

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

% of target achieved relative to base year [auto-calculated]
56.9419687066746

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
Our goal focuses on the purchased goods to make our products (raw materials), the subsequent processing of the products, and end-of-life treatment. This requires an increase of recycled material inputs and other 'low embodied carbon' materials, as well as increasing the recyclability of our products.

Plan for achieving target, and progress made to the end of the reporting year
In 2022, we achieved a reduction of 11.6% in Scope 3 emissions per tonne of raw material (baseline: 2019; 2021 equivalent: -7.9%). This is due to the ongoing work with our suppliers to cut the carbon intensity in our petrochemical and plastics supply chains. We also laid the foundation of our refreshed supplier engagement programme, with an initial outreach to our top 25 suppliers. In addition, by using recycled rather than virgin material, we have avoided over 190 k tonnes of CO2 emissions. Of course, our 'Close the Loop' goals contribute to our Scope 3 GHG target, since circular economy materials are inherently 'lower-carbon', and recyclability innovations promote greater use of such materials.

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

C4.2

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

C4.2a

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

Target reference number
Low 1

Year target was set
2020

Target coverage
Company-wide

Target type: energy carrier
All energy carriers

Target type: activity
Consumption

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

Base year
2019

Consumption or production of selected energy carrier in base year (MWh)
773358425

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

Target year
2025

% share of low-carbon or renewable energy in target year
55

% share of low-carbon or renewable energy in reporting year
52

% of target achieved relative to base year [auto-calculated]
91.4285714285714

Target status in reporting year
Underway

Is this target part of an emissions target?
Our goal is to halve Scope 1 and 2 emissions by 2025, against our 2019 baseline. Our work on energy efficiency and renewable electricity are the two fundamental programmes which drive our success in reducing GHG emissions.

Is this target part of an overarching initiative?
Science Based Targets initiative

Please explain target coverage and identify any exclusions
This target is an internal target and is to support the achievement of targets to reduce scope 2 emissions.

Plan for achieving target, and progress made to the end of the reporting year
In 2022, we reduced our operational emissions by 43% (2019 baseline; 2021: 24%). Both energy efficiency and the use of renewable electricity were vital to achieving this outstanding result. A capital investment of €2.8 million was made in energy efficiency, renewable energy and waste to landfill in 2022 across multiple projects. By the end of 2022, 52% of our electricity was generated from renewable sources1 (2021: 28%). We have now increased the amount of renewable energy used for three years in a row. Using more renewable energy helps us not only meet our emissions reduction goals, but also to secure our supplies of energy. By using 52% of electricity from renewable sources, we avoided the generation of 91,000 tCO2 equivalent directly from our operations.

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

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2020

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Waste management	metric tons of waste diverted from landfill

Target denominator (intensity targets only)
<Not Applicable>

Base year
2020

Figure or percentage in base year
86

Target year
2022

Figure or percentage in target year
100

Figure or percentage in reporting year
93.5

% of target achieved relative to base year [auto-calculated]
53.5714285714286

Target status in reporting year
Revised

Is this target part of an emissions target?
No

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

Plan for achieving target, and progress made to the end of the reporting year
In 2022, across kp, 24 sites achieved 'zero waste to landfill', compared with 15 in 2021. While our ambitious target of all waste to be diverted from landfill by the end of 2022 was not met, the target stimulated action to achieve 93.5% diversion (2021: 86%). This is comparable with others in our industry and we expect to meet our goal by Q3 2023. We consistently recorded high rates of trim reprocessing in 2022. At our Beaver plant, for instance, we took waste destined for the site compactor and introduced it into the regrinding process, thus raising the re-work rate there and also reducing our use of landfill.

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

C4.3

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

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*	49	594
Implementation commenced*	50	595
Implemented*	396	5953
Not to be implemented		

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 production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
3571

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1000000

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

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
At kp we know the most sustainable energy is the energy you don't use in the first place, and energy is a large controllable cost for many organisations. Operational efficiency is energy efficiency. Many measures to reduce energy consumption do not require capex- Our global Energy Task Force is sponsored by the leadership team, tools such as our "lean, clean, green" programme is made available to site managers and cover energy management techniques. The logic is simple: use less to be lean, invest in efficient clean tech and go for greener, renewable power

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Initiative category & Initiative type

Energy efficiency in production processes	Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
892

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
300000

Investment required (unit currency – as specified in C0.4)
600000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Cooling technology optimisation is one of the key focus areas for kp for energy efficiency. Globally, approximately 12% of kp's total energy is used in cooling material and buildings that are processing plastic materials. Each year, there are countless example of chiller plant efficiency projects across the plants. These include condenser cooling, heat exchanger cooling, variable speed drive investments in pumps and fans, upgrades to chiller plant control systems to better match the demand with the consumption, use of free cooling technology to avoid the need to use too much electrical energy. Cooling systems are audited at least 2 yearly to ensure they are operating at efficient temperatures. In 2022, a significant proportion of kp's capital investment budget was invested into improved cooling systems.

Initiative category & Initiative type

Energy efficiency in production processes	Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)
595

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

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

500000

Investment required (unit currency – as specified in C0.4)
400000

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Compressed air is one of the most expensive forms of energy to use. At kp approximately 10% of all the energy consumed in the plants is in the form of compressed air. The compressed air systems of each plant are challenged each year to understand what potential there is to improve energy efficiency. This includes everything from fixing of compressed air leaks, to implemented procedures to ensure compressed air is shut-off when lines are not in operation, improved air flow control to check that air is only distributed around the plant as it is needed, and not used to meet artificial demand. Compressors in different factories are upgraded yearly. There is a continuous process ongoing. As an example in 2022 the compressors in 4 main factories St Helens, Totoral, Gendorf and Pravia were upgraded to deliver GHG emissions reduction benefit.

Initiative category & Initiative type

Energy efficiency in production processes	Smart control system

Estimated annual CO2e savings (metric tonnes CO2e)
297.65

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
200000

Investment required (unit currency – as specified in C0.4)
350000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Manufacturing environments are complicated places and control systems that can better manage temperatures, cooling systems compressed air and other areas. Each year each plant invests in these types of projects to save energy and optimise production process control. This starts with process mapping of where energy is used. Different Lean manufacturing techniques are used to eliminate waste.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
297.65

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
400000

Investment required (unit currency – as specified in C0.4)
400000

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
kp has a target to be 100% LED lighting across all building operations during the sustainability strategy journey. A majority of kp plants (>70%) have already in the previous 5 years upgraded their entire lighting systems to high efficiency LED lighting. Each year capital projects to the value of €0.5m are supported to close any remaining gaps. In 2022 plants such as Gebze in Turkey and Rayong in Thailand made progress with capital investments in LED lighting to reduce emisisons.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (Heating system upgrades)

Estimated annual CO2e savings (metric tonnes CO2e)
178.59

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
150000

Investment required (unit currency – as specified in C0.4)
250000

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
Heating systems in kp's 31 factories are upgraded on an ongoing basis to reduce the consumption of natural gas. In 2022 due to the energy crisis in Europe a risk assessment was completed of all kp plants to understand there exposure should natural gas supply be cut off. In addition, heating systems were upgraded in Featherstone UK and Montabaur Germany. Furthermore, heat recovery projects to use heat from production lines to replace Scope 1 emissions are under various stages of development and implementation.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
120

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
75000

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

Payback period
<1 year

Estimated lifetime of the initiative
21-30 years

Comment
Four of kp's 31 factories are now fitted with rooftop solar systems. This includes Rayong in Thailand, Santo Tirso in Portugal, Valencia in Spain and Pravia in Spain. There is a pipeline in place to equip as many as 10 other factories with solar energy as part of our long term sustainability journey. Due to the amount of energy consumed within kp plants, it is not possible to meet all the requirements using on-site solar.

C4.3c

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

Method	Comment
Employee engagement	Employee engagement is crucial for us to advance on our Investing in better strategy. In order to reach our employees in all areas and in all regions, we hold quarterly Sustainability Forums. In each of the sessions, we touch base on key material topics from our Sustainability strategy (Energy, climate, recyclability, DE&I, etc) in order to keep employees up to date and give the opportunity to ask questions.
Dedicated budget for other emissions reduction activities	A dedicated sustainability budget is in place to cover greenhouse gas (GHG) management and is used to fund initiatives which will further our sustainability objectives. Some of our energy management initiatives are covered under our operations budget
Financial optimization calculations	Manufacturing is energy intensive, and each year our operations consume energy equivalent to 200,000 average European homes. Most of our energy is used in heating up and processing raw materials, cooling, and compressing air, as shown in the graphic. Our operations are powered mainly by electricity (90%), with additional natural gas (8%), diesel and other fuels. Most processes use heat, such as extrusion, calendaring and thermoforming, which operate at between 100°C and 350°C. In response to the volatility of energy prices in 2022, we identified '16 quick wins' for sites to implement, in addition to the existing 150 best practices outlined by the Energy Taskforce. Our sites also have energy efficiency targets and initiatives which are supported by additional investment in technologies which will also continue delivering efficiencies in 2023. We will continue to deliver energy management and savings at an ambitious pace.
Compliance with regulatory requirements/standards	Each site systematically manages its environmental management, energy management and quality processes to ensure compliance with regulations, and with our own policies
Please select	

C4.5

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

C4.5a

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

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other	Other, please specify (Packaging products)

Description of product(s) or service(s)
kp has been using post-consumer recycled (PCR) material to produce high-quality products that meet global safety standards and consumer expectations for nearly two decades. Part of this effort has involved supporting our customers to include more recycled content in their packaging.

Some of our products which contain PCR content that we classify as low-carbon include:
- kp Zapora®, kp MonoSeal®, kp Elite®, kp Eternal ®, kp MonoSeal®, and Pentalabel® SmartCycle® Pro mono-material packaging, as well as kp SmartCycle® films. Those offers are recyclable and contain PCR material, in line with market demand.

The above products either generate less carbon, or incorporate more recycled content (and therefore require less fossil fuels for extraction, transportation, and processing of resin/polymers), and/or are designed for recyclability (and therefore reduce our Scope 3 emissions).

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

Methodology used to calculate avoided emissions
Other, please specify (The methodology used to assess avoided emissions in the last year is the one that we use to calculate our Scope 3 emissions)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Other, please specify

Functional unit used
Not relevant

Reference product/service or baseline scenario used
Baseline scenario is our 2022 raw materials mix

Life cycle stage(s) covered for the reference product/service or baseline scenario
Other, please specify

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
190000

Explain your calculation of avoided emissions, including any assumptions
The methodology used to assess avoided emissions in the last year is the one used to assess our Scope 3 emissions from our Raw materials. The amount of recycled content purchased is multiplied by the relevant emission factor from Ecoinvent. That same volume is also multiplied by the virgin Emision factor, The result allows us to compare avoided emissions from using recyled conent rather than virgin content. Using recycled content in our products also reduces the carbon footprint of our products. We have calculated that in 2022, by using recycled rather than virgin material, we have avoided over 190 k tonnes of CO2 emissions.

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

C5. Emissions methodology

C5.1

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

C5.1a

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

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

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

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

C5.2

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

Scope 1

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
24418

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 2 (location-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
251078

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 2 (market-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
266826

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
1629336

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 2: Capital goods

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
18510

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

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

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
65471

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 4: Upstream transportation and distribution

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
107490

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
3214

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 6: Business travel

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
6467

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 7: Employee commuting

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
4039

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
NA

Scope 3 category 9: Downstream transportation and distribution

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
223735

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 10: Processing of sold products

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
134269

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
NA

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

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
13583

Comment
In 2020, we undertook a comprehensive analysis of our Scope 1, 2 and 3 GHG emissions from our operations in line with the GHG Protocol and ISO 14064. 2019 was the first year we undertook a comprehensive carbon footprint to understand and manage the climate change impacts of the business, and therefore can be used as a baseline year in comparison with future years. Our Scope 1, 2 and 3 GHG emissions are calculated in line with the GHG Protocol and ISO 14064.
Greenhouse gases included within the boundary: Included greenhouse gases are CO2, CH4, N2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO2e. Emissions from biologically sequestered emissions have not been included.
Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
NA

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
NA

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
NA

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
NA

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
NA

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

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)
20475

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
All the energy consumed on site, direct emissions from directly controlled mobile sources, refrigerants and process gases released on site. The fuels recorded are natural gas, propane, and diesel. Direct emissions from directly controlled mobile sources is calculated from a fleet operated in North America; all other transportation is third party and included in Scope 3. Process gases are apportioned between onsite release and end-of-life release.

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
Emissions from electricity use are estimated using 'location-based' and 'market-based' approaches. For the location-based approach, the average emissions factor for the country is used, applying country-specific emissions factors published annually by the International Energy Agency (IEA).
The alternative 'market-based' approach refers to renewable energy certificates (given zero Hi unemissions), and where no supplier-specific data is held, factors published for residual emissions.

C6.3

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

Reporting year

Scope 2, location-based
180442

Scope 2, market-based (if applicable)
145558

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.4

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

C6.4a

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

Source of excluded emissions
Rented offices including sales sites Sales site have been excluded from the inventory, as these are not material

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

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

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

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

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

Date of completion of acquisition or merger
<Not Applicable>

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

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

Explain why this source is excluded
Rented offices have been excluded from the inventory as we currently focus on our most material emissions, and these occur in our manufacturing activities.

Explain how you estimated the percentage of emissions this excluded source represents

C6.5

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

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1342068

Emissions calculation methodology
Average data method
Spend-based method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis.
Raw material impacts were calculated using purchasing data provided in kg from Vendigital (one of our digital data systems). This data includes a number of adjustments based on purchasers' insight and corrections to data logging. Each material type was mapped to an emissions factor from Ecoinvent, a world-leading LCI database. Version 3.8 was used for this analysis (released 2021). The closest match was found for each material type, following the four-level categorization provided in the data. In a small number of cases where the product was purchased as a film etc., an additional processing step was also modelled, but unless stated in the data, materials are assumed to be purchased in granulate. A small number of entries were not possible to map (listed as "not applicable");
therefore, the total coverage by weight was 99.84%. Emissions were calculated in terms of kgCO2e using the impact factor IPCC 2013:climate change:GWP 100a.
A key raw material for which no direct factor match we used a proxy,

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
25729

Emissions calculation methodology
Spend-based method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis. Input/Output modelling was used, whereby the expenditure in € by spend type was linked to the respective GHG emissions of the types of fixed assets and consumables purchased. In all cases, emission factors were derived by DEFRA IO.

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

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
43068

Emissions calculation methodology
Average data method

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

Please explain

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
80023

Emissions calculation methodology
Average data method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis. This was calculated based on supplier locations as listed in Klöckner Pentaplast procurement information and the site locations.
data records for transportation destination were used to generate a list of latitude and longitude for each start and delivery location. Distances between these, in km, were calculated using an API linking the site locations to a Google Maps search. For those locations which could not be matched in this way, the Haversine Formula was used, which determines the great-circle distance between two points on a sphere given their longitudes and latitudes. These were spot-checked against real distances manually using Google Maps and any outliers were amended. Calculation of emissions. The A tonne-kilometre (tkm) was calculated for each journey using this distance and the quantity (kg) data provided. Emissions factors were applied from the DEFRA conversion factors, for sea freight, road freight, rail freight or air freight, assuming average loading. The calculation was carried out on a well-to-wheel basis i.e. upstream emissions associated with extraction of fuels are included as well as the impacts of fuel combustion.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
4253

Emissions calculation methodology
Average data method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis.
The emissions linked to the management of the different fractions of waste by each kp site during 2022 were considered.
The activity data comes from a database prepared by the organization, where the billing of industrial waste is reported in mass units (kg or tons). Each waste has been classified according to its final disposal: landfill, recycling, incineration, or water treatment.
The emission factors used in the calculation of the emissions associated with the generation of Klockner Pentaplast waste have been obtained from the Ecoinvent 3.8 database, considering the total tons of waste and its subsequent treatment.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
5545

Emissions calculation methodology
Average data method
Distance-based method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis.

Emissions from business travel include those derived from travel by plane, by train, rental vehicles, company cars and hotel nights.
- Derived from air travel. The activity data referring to air travel comes from a database, where the number of journeys made, the origin-destination and/or the mileage are reported. Emissions calculations associated with air travel are classified according to whether they are domestic flights (< 1.000 km), short-haul (between 1.000 and 3.700 km) or long-haul (> 3,700 km)
- Derived from train travel. The activity data referring to train travel comes from a database where the number of journeys made, the origin-destination and/or the mileage are reported.
- Derived from travel by rental cars or company cars. The activity data referring to travel by rental car or company car, have been reported according to the origin-destination, the kilometers traveled, or the liters consumed by the car during the journey.

The emission factor used comes from the DEFRA Guidelines, for journeys by rental car , train or plane

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
2642

Emissions calculation methodology
Average data method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis.

kp employee numbers were provided, and grouped by whether they are direct/indirect.
Assumptions were taken for the proportion of time home working was in force for indirect employees using international covid lockdown dates and data on the general shift to homeworking.
Commuting impacts were This was calculated estimated based on employee numbers and proxy data for average commuting patterns derived from the UK Department for Transport's National Travel Survey

Upstream leased assets

Evaluation status
Not relevant, explanation provided

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

Emissions calculation methodology
<Not Applicable>

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

Please explain
This category is not relevant for kp, as the company does not have upstream leased assets, as such emissions are not relevant.

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
233737

Emissions calculation methodology
Average data method
Distance-based method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis.

Outbound and internal transport paid for by kp is accounted for under category 3.4 Upstream transportation and Distribution. A number of key files were provided to describe downstream transportation. In order to avoid double counting transport listed across two record sources, the associated site has been identified; either directly provided in the file or via the city of origin. In this case, chosen source used for each site's downstream transport was manually assigned in discussion with kp. This is based on the reported tonnage transported in reference to central reports for sold volumes, understanding of transport routes between sites, and data systems.

Calculation of emissions. The approach to emissions calculation was consistent with other transport data sources (see Inbound Transport))

Processing of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
121989

Emissions calculation methodology
Average data method

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

Please explain
This category was calculated with the support of our GHG accounting partner Anthesis.

This category includes the downstream processing of any product that is sold as an intermediate product. Intermediate products are products that require further processing, transformation, or inclusion in another product before use by the end consumer. Therefore, thermoforming and laminating of products sold as sheets was included, whereas products requiring filling and printing are considered as final products.
Gross sales per country, polymer type and downstream processing method was provided to Anthesis, and the downstream processing requirements mapped using tables provided by FP and PHD teams.

The downstream processing impact calculated using industry-average process flows derived from Ecoinvent 3.7. The country-specific electricity consumption impact was calculated separately using IEA (International Energy Agency) impact factors.

Use of sold products

Evaluation status
Not relevant, explanation provided

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

Emissions calculation methodology
<Not Applicable>

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

Please explain
This category is not relevant for kp, as there are no further emissions associated with kp's products during use phase.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
9425

Emissions calculation methodology
Average data method

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

Please explain
End of life routes were assessed by application, polymer and by country where products are sold. Since kp does not know what each end customer does with their product, the end-of life routes have been assigned based on technical recyclability data per-region, and combined with Anthesis insight on what is recycled in practice and at scale. For recycling to be included in the end-of-life model, the material must be considered both technically recyclable from a product perspective, and to be recycled in practice and at scale in its country of sale. Where no country-specific data is available, the end of lifeend-of-life split was modelled based on similar countries or a regional average.

There are impacts associated from the manufacture of materials/products, and further impacts associated with the end of life treatment of materials/products. Double counting could easily occur when materials have several lives, e.g., as recycled materials or as electricity derived from waste. Double counting of “credits” associated with recycling and energy recovery is avoided by rules defining the boundary of purchase and waste accounting. The rules are called 100-0 (recycled content) or 0-100 (cut-off) approach. The GHG Protocol recommended rule is the recycled content approach, which is used in this assessment. In this approach, purchased recycled materials have lower impacts than virgin materials, so the organsiation gets a carbon benefit from choosing recycled materials, but then there cannot be any benefit accounted from choosing recycling over other waste streams. DEFRA emissions factors are used as these are compliant with the GHG protocol.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

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

Emissions calculation methodology
<Not Applicable>

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

Please explain
The emissions from this category are irrelevant and non-existent, as we do not have any downstream leased assets.

Franchises

Evaluation status
Not relevant, explanation provided

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

Emissions calculation methodology
<Not Applicable>

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

Please explain
The emissions from this category are irrelevant and non-existent, as we do not have any franchises.

Investments

Evaluation status
Not relevant, explanation provided

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

Emissions calculation methodology
<Not Applicable>

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

Please explain
The emissions from this category are irrelevant and non-existent, as we do not have any investments.

Other (upstream)

Evaluation status
Not relevant, explanation provided

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

Emissions calculation methodology
<Not Applicable>

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

Please explain
The emissions from this category are irrelevant and non-existent, as we do not have any additional upstream emissions beyond those already accounted for in other categories.

Other (downstream)

Evaluation status
Not relevant, explanation provided

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

Emissions calculation methodology
<Not Applicable>

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

Please explain
The emissions from this category are irrelevant and non-existent, as we do not have any additional downstream emissions beyond those already accounted for in other categories.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

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
0.0000693

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
166034

Metric denominator
unit total revenue

Metric denominator: Unit total
2395400000

Scope 2 figure used
Market-based

% change from previous year
38

Direction of change
Decreased

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

Please explain
In 2022. we have increased the amount of renewable energy used for three years in a row. Using more renewable energy helps us not only meet our emissions reduction goals, but also to secure our supplies of energy.

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	17688	IPCC Sixth Assessment Report (AR6 - 100 year)
CH4	14.93	IPCC Sixth Assessment Report (AR6 - 100 year)
N2O	120.78	IPCC Sixth Assessment Report (AR6 - 100 year)

C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Argentina	72.5
Australia	0
Belarus	154.1
Brazil	1104.4
Canada	1222.1
France	302.5
Germany	3046.9
Italy	170.6
China	778.1
Poland	477.2
Portugal	0.5
Russian Federation	457.3
Spain	240.3
Switzerland	1465.5
Thailand	394.8
Turkey	128.1
United Kingdom of Great Britain and Northern Ireland	355.9
United States of America	10104.5

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)
Food Packaging	3977
Pharma, Health and Durables	10960

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Argentina	1347.1	0
Australia	4559.8	4559.8
Belarus	1919.4	26.6
Brazil	1179.2	0
Canada	21.9	0
France	1663.8	1458.7
Germany	45501.6	90830.2
Italy	11433.6	21544.4
China	5781	17.2
Poland	7241.1	0
Portugal	5748.1	8901.1
Russian Federation	2337.6	0
Spain	8731.9	0
Switzerland	430.4	110.9
Thailand	9909	9909
Turkey	11227.1	65.3
United Kingdom of Great Britain and Northern Ireland	8134.7	18.6
United States of America	53275.2	8116.5

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)
Food Packaging	82904	57342
Pharma, Health and Durables	97539	88216

C7.7

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

Not relevant as we do not have any subsidiaries

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	56479	Decreased	26	Scope 1 and 2 emissions decreased by 19%, mostly due to renewable electricity purchased. We have increased our renewable electricity purchased to 52% (versus 28% in 2021). Thanks to these activities our Scope 1 and 2 emissions were 166,034 tons CO2e and reduced our emissions by
Other emissions reduction activities	5953	Decreased	3	In response to the volatility of energy prices in 2022, we identified '16 quick wins' for sites to implement, in addition to the existing 150 best practices outlined by the Energy Taskforce. By implementing all those actions, we avoided the generation of nearly 6,000 tCO2 equivalent directly from our operations.
Divestment		<Not Applicable>		n/a
Acquisitions		<Not Applicable>		n/a
Mergers		<Not Applicable>		n/a
Change in output	28568	Decreased	13	In 2022, our global production volumes were 11% lower than the 2019 baseline and 9% lower than in 2021. The increase per tonne of product processed is mainly attributed to the energy inefficiencies of running a reduced production volume, as a result of decreased consumer demand.
Change in methodology		<Not Applicable>		n/a
Change in boundary		<Not Applicable>		n/a
Change in physical operating conditions		<Not Applicable>		n/a
Unidentified		<Not Applicable>		n/a
Other		<Not Applicable>		n/a

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 5% but less than or equal to 10%

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	No
Consumption of purchased or acquired steam	Yes
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)	0	57182	57182
Consumption of purchased or acquired electricity	<Not Applicable>	314818	294542	609360
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	18339	18339
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	839	<Not Applicable>	839
Total energy consumption	<Not Applicable>	315657	370063	685720

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	Yes
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.

Sustainable biomass

Heating value

Total fuel MWh consumed by the organization
0

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

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
NA

Other biomass

Heating value

Total fuel MWh consumed by the organization
0

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

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
na

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization
0

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

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
na

Coal

Heating value

Total fuel MWh consumed by the organization
0

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

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
na

Oil

Heating value
HHV

Total fuel MWh consumed by the organization
6866

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

MWh fuel consumed for self-generation of heat
6866

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
1% of kp's total energy consumption is in the form of diesel

Gas

Heating value
HHV

Total fuel MWh consumed by the organization
55295

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

MWh fuel consumed for self-generation of heat
55295

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
8% of kp's total energy consumption is in the form of gas

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

Heating value

Total fuel MWh consumed by the organization
0

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

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
na

Total fuel

Heating value
HHV

Total fuel MWh consumed by the organization
62161

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

MWh fuel consumed for self-generation of heat
62161

MWh fuel consumed for self-generation of steam
0

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

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
9% of kp's total energy consumption is in the form of fuel

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	839	839	839	839
Heat	0	0	0	0
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 or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

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

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (36% of renewable as part of the grid mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
42066

Tracking instrument used
REGO

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

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

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

Comment
100% of electricity consumption in the UK si covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Poland

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Poland grid mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
12431

Tracking instrument used
GO

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

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

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

Comment
100% of electricity consumption in Poland is covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Spain

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Grid mix from Spain)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
58096

Tracking instrument used
GO

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

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

Comment
100% of electricity consumption in Spain is covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Canada

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
14581

Tracking instrument used
I-REC

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

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

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

Comment
100% of electricity consumption in Canada is covered by renewable energy certificates

---

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

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
120969

Tracking instrument used
I-REC

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

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

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

Comment
40% of electricity consumption in the United States of America is covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Argentina

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
4923

Tracking instrument used
I-REC

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

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

Comment
100% of electricity consumption in Argentina covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Belarus

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
5273

Tracking instrument used
I-REC

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

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

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

Comment
100% of electricity consumption in Belarus covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Russian Federation

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
6495

Tracking instrument used
I-REC

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

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

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

Comment
100% of electricity consumption in Russia covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
China

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
9360

Tracking instrument used
I-REC

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

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

Comment
100% of electricity consumption in China covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Turkey

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
27158

Tracking instrument used
I-REC

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

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

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

Comment
100% of electricity consumption in Turkey covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Brazil

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
12624

Tracking instrument used
I-REC

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

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

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

Comment
100% of electricity consumption in Brazil covered by renewable energy certificates

---

Country/area of low-carbon energy consumption
Thailand

Sourcing method
Purchase from an on-site installation owned by a third party (on-site PPA)

Energy carrier
Electricity

Low-carbon technology type
Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
666

Tracking instrument used
Contract

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

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2020

Comment
Our Rayong facility in Thailand is fitted with a full rooftop solar array, with over 1MW installed capacity.

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Germany

Consumption of purchased electricity (MWh)
141944

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
18339

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
160283

Country/area
Argentina

Consumption of purchased electricity (MWh)
4923

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
4923

Country/area
Australia

Consumption of purchased electricity (MWh)
5364

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
5364

Country/area
Belarus

Consumption of purchased electricity (MWh)
5273

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
5273

Country/area
Brazil

Consumption of purchased electricity (MWh)
12624

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
12624

Country/area
Canada

Consumption of purchased electricity (MWh)
14581

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
14581

Country/area
China

Consumption of purchased electricity (MWh)
9360

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
9360

Country/area
France

Consumption of purchased electricity (MWh)
30032

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
30032

Country/area
Italy

Consumption of purchased electricity (MWh)
47187

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
47187

Country/area
Poland

Consumption of purchased electricity (MWh)
12431

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
12431

Country/area
Portugal

Consumption of purchased electricity (MWh)
31669

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
31669

Country/area
Russian Federation

Consumption of purchased electricity (MWh)
6495

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
6495

Country/area

Spain

Consumption of purchased electricity (MWh)
58096

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
58096

Country/area
Switzerland

Consumption of purchased electricity (MWh)
5792

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
5792

Country/area
Thailand

Consumption of purchased electricity (MWh)
20786

Consumption of self-generated electricity (MWh)
666

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
21452

Country/area
Turkey

Consumption of purchased electricity (MWh)
27158

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
27158

Country/area
United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)
42066

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
42066

Country/area
United States of America

Consumption of purchased electricity (MWh)
133572

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
133572

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Waste

Metric value
4264024

Metric numerator
kg

Metric denominator (intensity metric only)

% change from previous year
44

Direction of change
Decreased

Please explain
In 2022, across kp, 24 sites achieved ‘zero waste to landfill, compared with 15 in 2021. In 2022, our overall ‘waste to landfill’ was down by 44%, while several more of our sites achieved ‘zero waste’ status. 93,5% of our waste was sent to recycling or incineration with energy recovery.

Description
Energy usage

Metric value
1141

Metric numerator
kWh

Metric denominator (intensity metric only)
tonne

% change from previous year
3

Direction of change
Increased

Please explain
Measured in kWh consumption per tonne processed, including: electricity, natural gas, steam, compressed air, diesel and propane. The increase per tonne of product processed is mainly attributed to the energy inefficiencies of running a reduced production volume, as a result of decreased consumer demand. We will work hard to ensure kp’s production is efficient and aligned with our GHG emissions reduction roadmap. We are also expanding the scope of our renewable energy roadmap, which itself includes efficiency measures

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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	No emissions data provided

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
kp_Sustainability Report 2022_230627.pdf

Page/ section reference
Page 70-71 of kp's Sustainability Report includes the Limited Assurance Report issued by DNV GL.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
kp_Sustainability Report 2022_230627.pdf

Page/ section reference
Page 70-71 of kp's Sustainability Report includes the Limited Assurance Report issued by DNV GL.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
kp_Sustainability Report 2022_230627.pdf

Page/ section reference
Page 70-71 of kp's Sustainability Report includes the Limited Assurance Report issued by DNV GL.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)

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?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Other, please specify (Energy intensity)	ISAE3000	Page 70-71 of kp's Sustainability Report includes the Limited Assurance Report issued by DNV GL.It also includes energy intensity as a key metric for verification.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

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

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Collect GHG emissions data at least annually from suppliers
Collect climate-related risk and opportunity information at least annually from suppliers

% of suppliers by number
0.5

% total procurement spend (direct and indirect)
58

% of supplier-related Scope 3 emissions as reported in C6.5
57

Rationale for the coverage of your engagement
As Scope 3 emissions account for 90% of our total emissions, suppliers are a strategic priority for us. Kp had in 2022 about 10.000 suppliers in 64 countries.
RATIONALE:
We prioritized the most relevant suppliers to be evaluated based on their impact to our Scope 3 emissions. We have selected 50 suppliers which are responsible for 58% of our total procurement spend and responsible for 57% of our total Scope 3 emissions and 79% of kp's total Scope 3 emissions in the category of purchased goods and services.
Our approach includes to collect material-related CO2 footprint data and knowledge about their GHG emission reduction initiatives and based on that cluster them in different maturity levels. All supplier inputs are duly analysed by external LCA experts from a consultancy we partnered with. Those identified as 'low' received training and informational material, those identified as 'medium' have been followed up with calls to understand can kp can support them further. From 'advanced' suppliers we have collected LCA data to update our GHG inventory with this “real” values. We will measure the development of supplier-specific GHG emissions year-on-year to measure our progress against set SBTi targets. We are currently evaluating approaches on how to scale up the engagement with a larger supplier community, potentially leveraging tool

/ platform solutions.

Impact of engagement, including measures of success
In general, we have set ambitious sustainability targets and measure target fullfilment.
In detail, after this engagement program, we have now a maturity analysis of our top suppliers. This allows us to define specific actions depending on their maturity and work with them towards improvements in sustainability and GHG emission reduction.
The impact of the engagement is perceived in the improved sustainability performance of the suppliers. We have KPIs that we track to monitor the success. Total suppliers GHG emissions evaluated from all Scope 3 (57%); Total suppliers with LCA received from total suppliers evaluated (28%); Total response rate from suppliers evaluated (92 %). Total advanced and high suppliers from Total suppliers evaluated (48%)
The success is measured during the calculation of our Scope 3 emissions over the years and the number of collected LCA values from our suppliers and the updates of the other KPIs mentioned above.

Comment

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Other, please specify (Identifying ESG risk of Suppliers, and performing in-depth risk analysis on high-risk suppliers and all critical suppliers in terms of Due Diligence)

% of suppliers by number
0.87

% total procurement spend (direct and indirect)
53

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

Rationale for the coverage of your engagement
Through a subscription to Verisk Maplecrofts Global Risk Dashboard (GRiD), KP Films access 28 ESG country risk indices which have been mapped to KP's Supplier Code of Conduct, enabling the Sustainable Procurement team to begin a high level inherent risk mapping exercise for our supply base and countries in which we operate in. We conducted a risk assessment of all our suppliers and contractors (around 10000), a process which included 28 risk criteria covering in the first place Environmental Protection like Heat Stress, Air Quality, Biodiversity and Protected Areas, Deforestation, Water Pollution, Water Stress, CO2 Emissions from Energy Use, Recycling and waste management, but also topics about Human Rights, Child Labour, Occupational Health and Safety, Modern Slavery, Anti Discrimination, and Political Risk. The outcome was a profile of high risk suppliers from whom we expect answering a self assessment questionnaire followed with corrective actions in specific cases. By ensuring that all high risk suppliers undertake this assessment, we can reduce climate risk in our value chain, and also raise awareness within our value chain for the actions that are required as we move towards a net-zero world. Moving all this actions to a digital platform where our suppliers have to enter their information is underway and we are planning to start ESG audits in case of extreme risk cases. On top of that we are monitoring if our strategic suppliers (those who are responsible for 80% of our total spend) are rated by Ecovadis and have achieved at least bronze rating which give us additional assurance about their ESG performance.

Impact of engagement, including measures of success
Having a bit more than 10 000 suppliers makes it necessary to prioritize in order to have an impact and identify and mitigate ESG risk in our value chain. In 2022, we received risk data of 763 of our suppliers. (763 suppliers have been assessed out of more than 10.000 suppliers in total. We have selected suppliers over 50k EUR spend only; we have considered highest spend suppliers and considered suppliers in highest risk countries (China and Turkey.) The outcome was:
· 0 extreme risk
· 111 high risk (14,55%)
· 493 medium risk (64,61%)
· 159 low risk (20,84%)
SAQ`s (Self Assessment Questionnaires) have been sent to 97 high risk suppliers out of the 763 to check on them in more detail. (not send to all of the 111 high risk because of some duplication / same vendors – different location)
After completion of the assessments, any that fall short of our ESG, or Climate Risk, expectations are asked to implement corrective actions. In extreme cases we have deselected the supplier (3 suppliers in Turkey).
ESG audits will be implemented soon on top of these actions.
We have expanded the risk assessment and analysed 10000 suppliers through the Verisk Maplecroft platform in 2023, almost 100% of our total supplier base. Turkey, China and Thailand have been identified as high risk countries and we have sent all suppliers with over 50k EUR of spend in this countries a new round of self assessment questionnaires. The results to be expected in near future.
Regarding Ecovadis rating, we have monitored that 40% of our strategic suppliers (making 0.87 % of our total suppliers) are Ecovadis rated which covers 53% from our total Procurement spend.

Comment

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Other, please specify (Provide Training, support and best pratices on GHG Emission calculation and Life Cycle Analysis Calculation Training)

% of suppliers by number
0.5

% total procurement spend (direct and indirect)
58

% of supplier-related Scope 3 emissions as reported in C6.5
57

Rationale for the coverage of your engagement
Supplier engagement is key to decarbonising our value chain, because approximately 90% of our total carbon emissions come from things we buy, and not what we do in our direct operations. Engaging with suppliers is critical to achieving our science-based target. During 2022, we refreshed our supplier engagement programme by engaging with our top 50 suppliers, which were selected based on their overall Scope 3 contribution. During this process of engagement, we educated and supported suppliers with training materials that aim to accelerate GHG emission reductions.

Impact of engagement, including measures of success
We have gathered primary data from those suppliers through a formal validation process supoorted by an external consultancy and we aim to report back on further progress next year.

In general, we have set ambitious sustainability targets and measure target fullfilment.
In detail, after this engagement program, we have now a maturity analysis of our top suppliers. This allows us to define specific actions depending on their maturity and work with them towards improvements in sustainability and GHG emission reduction.
The impact of the engagement is perceived in the improved sustainability performance of the suppliers. We have KPIs that we track to monitor the success. Total suppliers GHG emissions evaluated from all Scope 3 (57%); Total suppliers with LCA received from total suppliers evaluated (28%); Total response rate from suppliers evaluated (92 %). Total advanced and high suppliers from Total suppliers evaluated (48%)
The success is measured during the calculation of our Scope 3 emissions over the years and the number of collected LCA values from our suppliers and the updates of the other KPIs mentioned above.

Comment

C12.1b

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

Type of engagement & Details of engagement

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

% of customers by number
100

% of customer - related Scope 3 emissions as reported in C6.5
100

Please explain the rationale for selecting this group of customers and scope of engagement
We engage with all our customers to make sure that they are aware of our sustainability strategy and more in detail with our climate action programme. We actively share or progress on our website and social media posts and provide ad hoc content when required.

Impact of engagement, including measures of success
In the last few years we have seen a growing number of customers wo are requesting transparency and further information from their suppliers regarding their actions and commitments in relation to climate change and circular economy.

We've been receiveing requests via platforms or on an adhoc basis and we are keen to partner with them to show the great work that we have accomplished and our plans for the future.

We respond to EcoVadis (supplier sustainability platform) and share our results with the requesting customers. Other means of of sharing information are our published sustainability report, ad hoc requests and meetings.

C12.1d

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

The ‘value chain’ for a typical packaging manufacturing operation includes retailers, waste contractors, consumers, manufacturers, suppliers, employees, trade bodies and governments

One of our top strategic priorities is to actively engage with stakeholders, demonstrating a commitment to understanding and listening to their perspectives. In doing so, we aim to foster valuable partnerships that are instrumental in achieving our goals .Working and engaging with suppliers, other manufacturers and our customers, all the way through to end consumers and waste management companies is essential for building strong business relationships, ensuring smooth operations, and fostering collaboration and innovation.

Throughout the year we work with suppliers, customers, waste contractors, associations to keep driving our strategy and growth. We are confident that with our collaboration we can deliver increased value over the long term in a sustainable way.

Employees:

In order to reach our employees in all areas and in all regions, we hold quarterly Sustainability Forums. In each of the sessions, we touch base on key material topics from our Sustainability strategy (Energy, climate, recyclability, DE&I, etc) in order to keep employees up to date and give the opportunity to ask questions.

Associations

Extensive collaboration and engagement with customers is fundamental to our approach, as is our work with organisations such as Ellen MacArthur Foundation, Recyclass. We engage and partner with organisation which seek to drive circular economy and to reduce its climate related impacts and opportunities. We are Board members of Petcoreand we co-chair its thermoforming group..All these associations are collaborating to find solutions where plastic never becomes waste or pollution.

We measure success by the quality of discussions we have with stakeholders at a global level and their feedback on our actions related to climate.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization’s purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Other, please specify (Different requirements as per our contract terms - reponsible waste management, Reduction of GHG emissions etc.)

Description of this climate related requirement
kp introduced an ESG clause in direct supply contracts and Purchase Orders in 2022. Requires the supplier to acknowledge that it has familarised itself with kp's Supplier Code of Conduct and Sustainable Procurement Policy.
kp's Sustainable Procurement Policy expects suppliers to:
• Undertake initiatives to promote greater environmental responsibility such as:
• Responsible waste management and disposal
• Reduction of greenhouse gas and other emissions harmful to the environment
• Conservation of non-renewable natural resources
Kp encourages its employees to ask supplier selection criteria questions to new or existing suppliers, like:
Is the supplier certified by Ecovadis?
Does the supplier have CO2 emission reduction targets? Are these targets approved by SBTI like kp´s? Does the supplier have a net-zero target?
Does the supplier have facilities near the kp locations to which he could deliver? How far are the transport distances?
How do you manage emissions, energy, waste, and water use?
What raw materials are used? Are they from renewable sources?
How is the water and energy consumption in production?
Quantity and type of packaging material?
Transportation modes and distances?
Product repair and maintenance?
Product afterlife and disposal?
As we have 10000 suppliers, but only around 200 are responsible for 80% of our total spend; we focus on these supplier group in first place, which we define as our strategic suppliers.

% suppliers by procurement spend that have to comply with this climate-related requirement
80

% suppliers by procurement spend in compliance with this climate-related requirement
30

Mechanisms for monitoring compliance with this climate-related requirement
Supplier self-assessment
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement
Other, please specify (Corrective actions, if no improvement - >supplier de-selection)

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?
No, but we plan to have one in the next two years

Attach commitment or position statement(s)
<Not Applicable>

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
Our external engagement seeks to increase and drive circular economy. The main reasoning behind is increasing the amount of recycled content available to use in the market as well as recyclability of our products.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (BPF, European Plastics Converters)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
BPF, European Plastics Converters all seek to drive circular economy. Both associations support the transition to a stronger and more circular economy where all resources are used in a sustainable way. This is fully aligned and consistent with our Investing in better strategy and our close the loop goal of reduce waste and do more with less. We will use more recycled material, close the packaging loop and take every opportunity to make our packaging recyclable.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
No, we have not evaluated

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 mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
kp_TCFD_230627.pdf

Page/Section reference
All - This is our first TCFD report which covers governance, strategy, risks and opportunities as well as metrics

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication
In voluntary sustainability report

Status
Complete

Attach the document
kp_Sustainability Report 2022_230627.pdf

Page/Section reference
Page 34-46 of kp's 2022 sustainability report, covers our work smarter pillar. It is focused at reducing resource use, cutting emissions and avoiding landfill .

Content elements
Governance
Strategy
Emissions figures
Emission targets
Other metrics

Comment
Emissions targets and progress included in the 2022 are based on the 2019 baseline and part of our investing in better strategy. Targets were approved by SBTi in September 2021, following a 1.5C pathway.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Global Reporting Initiative (GRI) Community Member Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact Other, please specify	Since June 2022 kp is a United Nations Global Compact signatory. The goals of the UNGC align very well with the mission and purpose of our business and our commitment to sustainability at kp, and we look forward to working together to help solve many of the challenges that we face today. kp also reports its sustainability report in accordance with the GRI Standards for the period January 1st to December 31st 2022

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	Our is primarily responsible for our strategic plan, risk appetite and systems of internal control and governance – all of which are underpinned by sustainability, which includes biodiversity. On top, our executive leadership team is responsible for the overarching development of our policies and for effective implementation. It is also accountable for minimising our impact on the environment and for owning our various targets to improve environmental performance.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, and we do not plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
Yes

Value chain stage(s) covered
Direct operations

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
Other, please specify (We recently undertook an assessment to identify the impact of our operations on biodiversity using the WWF Biodiversity Risk Filter)

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No and we don't plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Yes

C15.4a

(C15.4a) Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area
Key Biodiversity Area (KBAs)

Country/area
Spain

Name of the biodiversity-sensitive area
Two of our sites in spain (Girona and Pravia) are located in between 10-50% overlap of a KBA, more specifically in Massis del Montseny and Cabo Busto.

Proximity
Overlap

Briefly describe your organization's activities in the reporting year located in or near to the selected area
We have a manufacturing site in Girona and another one in Pravia.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity
Not assessed

Mitigation measures implemented within the selected area
<Not Applicable>

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented
<Not Applicable>

Classification of biodiversity -sensitive area
Key Biodiversity Area (KBAs)

Country/area
Turkey

Name of the biodiversity-sensitive area
Our site in Turkey, Gebze, is located in between 10-50% overlap of a KBA - Pendik Vadisi .

Proximity
Overlap

Briefly describe your organization's activities in the reporting year located in or near to the selected area
We have a manufacturing site in Gebze

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity
Please select

Mitigation measures implemented within the selected area
<Not Applicable>

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented
<Not Applicable>

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, and we do not plan to undertake any biodiversity-related actions	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	Please select

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Impacts on biodiversity	We have attached our 2022 Sustainability Report were we detail the risk assessment that we have carried out in regards of biodiversity impacts kp_Sustainability Report 2022_230627.pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

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

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Klöckner Pentaplast (kp) has a broad product portfolio across a variety of polymers, and specialises in two core service lines: food packaging and pharma, health & protection, and durables.

kp is a plastics manufacturer that is purpose-driven to deliver the sustainable protection of everyday needs. Our experts create innovative films and trays such as blister packaging that provide product safety, help avoid food waste, safeguard medication and medical devices, and protect the integrity of countless durable products with our pharmaceutical packaging.

We innovate, design and manufacture for sustainable solutions that our customers use to package and protect products in daily situations around the globe. And we understand our obligation and responsibility to champion a circular economy where plastics are a source of valuable raw material.

In 2021, kp launched "Investing in Better", a broad and ambitious sustainability strategy with then time-bound and measurable long-term targets. The strategy is built around three main objectives:

- Close the loop: we will reduce waste and do more with less. This objective commits us to using more recycled material, closing the packaging loop and taking every opportunity to make our packaging recyclable.

- Work Smarter: we have a responsibility to use as few resources as possible, as efficiently as possible. That's why we are focused on using less energy, cutting carbon emissions and ending landfill.

- Act Responsibly: Acting responsibly at all times is a cornerstone of our culture. And in the future, we will do an even better job of keeping our people engaged, while we continue to focus on safety, and becoming a more diverse company.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	2395400000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
Grupo Bimbo, S.A.B. de C.V.

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
30.19

Uncertainty (±%)
5

Major sources of emissions
Scope 1 emissions are mainly from direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Also from our own fleet in North America.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
896065

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All the energy consumed on site, direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Direct emissions from directly controlled mobile sources is calculated from a fleet operated in North America; all other transportation is third party and included in Scope 3. Process gases are approportioned between onsite release and end-of-life release. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf

The allocation to emissions to Grupo Bimbo, has been calculated by the total kg sold to Bimbo to a proportion of kp's total production

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Requesting member
Grupo Bimbo, S.A.B. de C.V.

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
214.64

Uncertainty (±%)
5

Major sources of emissions
Scope 2 emissions are driven by electricity and steam consumption on site. By the end of 2022, 52% of our electricity was generated from renewable sources (2021: 28%). We currently have 4 factories partly operating on self-generated renewable energy and we're working on feasibility studies for 10 more similar installations.

Verified

No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
896065

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions are estimated using underlying activity data (e.g. electricity use, litres of fuel used) and the estimates are limited by the quality of the activity data. We go go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf .

The allocation to emissions to Grupo Bimbo, has been calculated by the total kg sold to Bimbo to a proportion of kp's total production

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Requesting member
Grupo Bimbo, S.A.B. de C.V.

Scope of emissions
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 10: Processing of sold products
Category 12: End-of-life treatment of sold products

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
2755.31

Uncertainty (±%)
5

Major sources of emissions
Major sources of emissions under Scope 3 are mainly driven by the purchase of our raw materials followed by downstream transport and distribution and processing of sold products. Additional Scope 3 insight is provided in our CDP response as well as in our 2022 Sustainability Report.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
896065

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Requesting member
Sigma Foods

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
58.33

Uncertainty (±%)
5

Major sources of emissions
Scope 1 emissions are mainly from direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Also from our own fleet in North America.

Verified
Please select

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1731207

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All the energy consumed on site, direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Direct emissions from directly controlled mobile sources is calculated from a fleet operated in North America; all other transportation is third party and included in Scope 3. Process gases are approportioned between onsite release and end-of-life release. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf

The allocation to emissions to Sigma, has been calculated by the total kg sold to Sigma to a proportion of kp's total production

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Requesting member
Sigma Foods

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
414.7

Uncertainty (±%)
5

Major sources of emissions
Scope 2 emissions are driven by electricity and steam consumption on site. By the end of 2022, 52% of our electricity was generated from renewable sources (2021: 28%). We currently have 4 factories partly operating on self-generated renewable energy and we're working on feasibility studies for 10 more similar installations.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1731207

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions are estimated using underlying activity data (e.g. electricity use, litres of fuel used) and the estimates are limited by the quality of the activity data. We go go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf .

The allocation to emissions to Sigma, has been calculated by the total kg sold to Sigma to a proportion of kp's total production

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Requesting member
Sigma Foods

Scope of emissions
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 10: Processing of sold products
Category 12: End-of-life treatment of sold products

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
5323.3

Uncertainty (±%)
5

Major sources of emissions
Major sources of emissions under Scope 3 are mainly driven by the purchase of our raw materials followed by downstream transport and distribution and processing of sold products. Additional Scope 3 insight is provided in our CDP response as well as in our 2022 Sustainability Report.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1731207

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Requesting member
Bayer AG

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
51.12

Uncertainty (±%)
5

Major sources of emissions
Scope 1 emissions are mainly from direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Also from our own fleet in North America.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1516983

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All the energy consumed on site, direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Direct emissions from directly controlled mobile sources is calculated from a fleet operated in North America; all other transportation is third party and included in Scope 3. Process gases are approportioned between onsite release and end-of-life release. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf

The allocation to emissions to Bayer, has been calculated by the total kg sold to Bayer to a proportion of kp's total production

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Requesting member
Bayer AG

Scope of emissions

Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
363.38

Uncertainty (±%)
5

Major sources of emissions
Scope 2 emissions are driven by electricity and steam consumption on site. By the end of 2022, 52% of our electricity was generated from renewable sources (2021: 28%). We currently have 4 factories partly operating on self-generated renewable energy and we're working on feasibility studies for 10 more similar installations.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1516983

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions are estimated using underlying activity data (e.g. electricity use, litres of fuel used) and the estimates are limited by the quality of the activity data. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf .

The allocation to emissions to Bayer, has been calculated by the total kg sold to Bayer to a proportion of kp's total production

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Requesting member
Bayer AG

Scope of emissions
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 10: Processing of sold products
Category 12: End-of-life treatment of sold products

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
4664.6

Uncertainty (±%)
5

Major sources of emissions
Major sources of emissions under Scope 3 are mainly driven by the purchase of our raw materials followed by downstream transport and distribution and processing of sold products. Additional Scope 3 insight is provided in our CDP response as well as in our 2022 Sustainability Report.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1516983

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Requesting member
Johnson & Johnson

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
38.75

Uncertainty (±%)
5

Major sources of emissions
Scope 1 emissions are mainly from direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Also from our own fleet in North America.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1150000

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All the energy consumed on site, direct emissions from directly controlled mobile sources, refrigerants and process gases released on site. The fuels recorded are natural gas, propane and diesel. Direct emissions from directly controlled mobile sources is calculated from a fleet operated in North America; all other transportation is third party and included in Scope 3. Process gases are approportioned between onsite release and end-of-life release. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf

The allocation to emissions to JnJ, has been calculated by the total kg sold to JnJ to a proportion of kp's total production

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Requesting member
Johnson & Johnson

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
275.47

Uncertainty (±%)
5

Major sources of emissions
Scope 2 emissions are driven by electricity and steam consumption on site. By the end of 2022, 52% of our electricity was generated from renewable sources (2021: 28%). We currently have 4 factories partly operating on self-generated renewable energy and we're working on feasibility studies for 10 more similar installations.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1150000

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions are estimated using underlying activity data (e.g. electricity use, litres of fuel used) and the estimates are limited by the quality of the activity data. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf .

The allocation to emissions to JnJ, has been calculated by the total kg sold to JnJ to a proportion of kp's total production

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Requesting member
Johnson & Johnson

Scope of emissions
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 10: Processing of sold products
Category 12: End-of-life treatment of sold products

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
3536.14

Uncertainty (±%)
5

Major sources of emissions
Major sources of emissions under Scope 3 are mainly driven by the purchase of our raw materials followed by downstream transport and distribution and processing of sold products. Additional Scope 3 insight is provided in our CDP response as well as in our 2022 Sustainability Report.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
1150000

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Requesting member
Teva Pharmaceuticals

Scope of emissions
Scope 1

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
69.7

Uncertainty (±%)
5

Major sources of emissions
Scope 1 emissions are mainly from direct emissions from directly controlled mobile sources, refrigerants and process gases released on sie. The fuels recorded are natural gas, propane and diesel. Also from our own fleet in North America.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
2067000

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
All the energy consumed on site, direct emissions from directly controlled mobile sources, refrigerants and process gases released on site. The fuels recorded are natural gas, propane and diesel. Direct emissions from directly controlled mobile sources is calculated from a fleet operated in North America; all other transportation is third party and included in Scope 3. Process gases are approportioned between onsite release and end-of-life release. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf

The allocation to emissions to JnJ, has been calculated by the total kg sold to JnJ to a proportion of kp's total production

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Requesting member
Teva Pharmaceuticals

Scope of emissions
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
495.1

Uncertainty (±%)
5

Major sources of emissions
Scope 2 emissions are driven by electricity and steam consumption on site. By the end of 2022, 52% of our electricity was generated from renewable sources (2021: 28%). We currently have 4 factories partly operating on self-generated renewable energy and we're working on feasibility studies for 10 more similar installations.

Verified
Please select

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
2067000

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Emissions are estimated using underlying activity data (e.g. electricity use, litres of fuel used) and the estimates are limited by the quality of the activity data. We go through an assurance process for our Scope 1 and 2 emissions, the assurance statement can be found in our 2022 Sustainability report: https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf .

The allocation to emissions to Teva, has been calculated by the total kg sold to Teva to a proportion of kp's total production

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Requesting member
Teva Pharmaceuticals

Scope of emissions
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 10: Processing of sold products
Category 12: End-of-life treatment of sold products

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
6355.8

Uncertainty (±%)
5

Major sources of emissions
Major sources of emissions under Scope 3 are mainly driven by the purchase of our raw materials followed by downstream transport and distribution and processing of sold products. Additional Scope 3 insight is provided in our CDP response as well as in our 2022 Sustainability Report.

Verified
No

Allocation method
Allocation based on mass of products purchased

Market value or quantity of goods/services supplied to the requesting member
2067000

Unit for market value or quantity of goods/services supplied
Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

We publicly report kp's yearly carbon emissions in our Sustainability Report. kp's Scope 1 and 2 Emissions go through a Limited Assurance process by DNV GL in accordance with ISAE 3000 Standard. Our GHG emissions as well as the Assurance Statement can be found in kp's 2022 Sustainability Report

https://www.kpfilms.com/en/sustainability/KP_SR22_230627.pdf

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	kp has over 8000 customers with an extensive portfolio of high quality plastic packaging and related solutions across the world. This makes it difficult to allocate emissions to individual products. kp continues to develop products that help protect the environment and drive circular economy. Calculating emissions at the company level is the best approach for kp. We have a robust methodology to carry out our GHG inventory, and we have kept improving that methodology throughout the years. We are confident on the methodology that we follow to allocate emissions to our customers and do so based on the kg purchased out of our total volume produced. However, we are aware that many customers are looking to get further insight and knowledge on the carbon footprint of the products that tey have in stock or that they want to purchase. As such, we are in the process of developing an internal carbon tool so that we can give that insight to our customers.
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	We have made several climate-related public commitments – central to these are our science-based targets for all emission scopes. We monitor and report Scopes 1, 2 and 3 GHG emissions on a yearly basis. We have a clear roadmap of action aligned to our validated Science-Based Targets, which focuses on renewable energy deployment as well as the transition to circular raw materials and their associated lower carbon footprint Supplier engagement is key to decarbonising our value chain and is critical to achieving our science-based target. In 2022, we extended the engagement with our top 50 suppliers, which have been selected based on their overall Scope 3 contribution, in order to collect primary data from them. Through this engagement, we have also aimed to educate and support our suppliers and have provided training materials to accelerate progress in relation to GHG emission reductions. These activities will have a greater impact to carbon reduction, than managing reductions at an individual product level.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We are aware that many customers are looking to get further insight and knowledge on the carbon footprint of the products that tey have in stock or that they want to purchase. As such, we are in the process of developing an internal carbon tool so that we can give that insight to our customers.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member
Sigma Foods

Group type of project
New product or service

Type of project
New product or service that reduces customers products / services operational emissions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
0-1 year

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
We are keen to further discuss how we can keep working together to develop projects which can lower our carbon emissions and how we can keep driving circular economy, increasing PCR content in our products as well as improving recyclability.

Requesting member
Grupo Bimbo, S.A.B. de C.V.

Group type of project
New product or service

Type of project
New product or service that reduces customers products / services operational emissions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
0-1 year

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
We are keen to further discuss how we can keep working together to develop projects which can lower our carbon emissions and how we can keep driving circular economy, increasing PCR content in our products as well as improving recyclability.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
No, I am not providing data

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms