Impala Platinum Holdings - Climate Change 2021

C0. Introduction

C0.1

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

Impala Platinum Holdings Limited (Implats) the second largest platinum-mining producer in the world and one of the leading platinum group metals (PGMs) mining and refining companies, globally. Implats is based in Johannesburg, South Africa, with key operations located in the Bushveld Complex and the Great Dyke of Zimbabwe.

In March 2020, the global COVID-19 pandemic impacted Implats' operations due to the South African national lockdown. The disruptions caused by the COVID-19 pandemic impacted Implats' business for the months of lockdown, however Implats' resilience mining practices and market following initiatives led to minimal disruptions and a quick bounce-back period.

In this reporting year, Implats has newly acquired an operation in Ontario, Canada, focussed mainly on palladium mining. Implats' other operational sites are in South Africa and Zimbabwe. The Impala Rustenburg, Marula and Two Rivers (46% share – not managed) mines are based in South Africa, while the Zimplats and Mimosa (50% share – not managed) mines are based in Zimbabwe. Implats produced a total of 2.813 million oz of refined 6E production in this past reporting year, most of which was Platinum (1.35Moz), Palladium (0.89Moz), Ruthenium (0.25Moz) and Rhodium (0.18Moz). Implats also has a refinery, Impala Refining Services (IRS) based in Springs (Gauteng, South Africa), which processes the ore concentrates and mattes produced at Implats' various operations, alongside materials purchased from other companies, to fulfil their excess smelting and refining capacity.

Implats is listed on the London Stock Exchange (LSE), Frankfurt Stock Exchange (2022 US$ convertible bonds), the Johannesburg Stock Exchange Limited (JSE) in South Africa and is also a level 1 American Depositary Receipt programme in the United States of America. Implats establishes stakeholder relationships at each of their individual operations, to most accurately and delicately manage the various economic, social and environmental issues that might arise. Implats' focus on sustainability and wholistic corporate governance, which is governed by the company's corporate governance strategy, in line with the King IV Code Principles and the JSE Listing Requirements.

In this past reporting year, Implats had maintained 50 744 employees across all their operations. Implats' operations are all ISO 14 001:2015 certified, with the exception of the Impala Canada operations. Implats prioritises the health and safety of their employees, protection of their surrounding environment. An embedded culture of safety awareness, healthy living and respect for the natural environment is a means through which Implats encourages good practices at all levels. Implats has rolled-out compliance standards and regular training sessions on health and safety practices, as well as relevant environmental standards at all of their operations.

Implats has participated in the CDP for the past 14 years (since 2007). In this reporting year, Implats produced 3 644 939 tCO2e of greenhouse gas emissions.

In this reporting year, the Scope 2 emissions produced from Implats' electricity consumption makeups approximately 88% of the Scope1 and 2 emissions produced from Implats' operations. The Scope 1 emissions produced by Implats' operations are mainly generated through the use of coal in their operations.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	July 1 2019	June 30 2020	No	<Not Applicable>

C0.3

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

Canada
South Africa
Zimbabwe

C0.4

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

ZAR

C0.5

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

Financial control

C-MM0.7

(C-MM0.7) Which part of the metals and mining value chain does your organization operate in?

Row 1

Mining

Copper
Gold
Platinum group metals
Nickel
Other non-ferrous metal mining, please specify (Cobalt)

Processing metals

Copper
Gold
Platinum group metals
Nickel
Other non-ferrous metals, please specify (Cobalt)

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	Implats' Board distributes duties to subcommittees, with various mandates, to ensure adequate governance and expertise is provided on all key issues. The health, safety, environment and risk (HSER) Committee is responsible for the governance, monitoring and strategic planning of health, safety, environmental and other risks faced by Implats (including climate-related issues), in light of ensuring harmless operations. The recently acquired Impala Canada operation has aligned with the Group HSER reporting protocols and associated management methods.Implats has identified climate change as a topic of concern which impacts all spheres of HSER portfolio and have thus integrated their approach to climate change within the Committee. Climate change poses material risk to the sustainability of Implats' operations globally. Implats has recently appointed a Group Executive: Sustainability, who oversees the climate-related actions.The HSER Committee monitors and reviews the risk profile and effectiveness of all management activities. Using information from quarterly Exco meetings, and other operational and financial meetings, the Committee develops strategic business and capital allocation decisions. The Committee assesses strategic implementation, internal policies, standards and risk management procedures for adequacy and appropriateness, and revises risk management strategies used by the Group in a systemic method, ensuring all HSER-related impacts can be accounted for and managed accordingly. The Committee also investigates and reviews all major incidents for trouble-shooting and improved management methods. (ESG Report 2020, page 18).An example of a climate-related decision made by the HSER Committee in this reporting year is the increased actions towards alignment with the international best practice proposed by the Task Force on Climate-related Financial Disclosure (TCFD) recommendations. Implats has begun the process to implement the recommended actions and public awareness measures for climate-related risk disclosure (see pages 116 – 117 of SD Report 2020). In FY2020, Implats appointed a consultant to assist in identifying their TCFD gaps and a strategy for increased TCFD alignment of their company reporting. It is anticipated that TCFD scenario analyses and increased financial disclosures will be included in Implats' reporting within the next two years.

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 – all meetings	Reviewing and guiding strategy	<Not Applicable>	Implats' board hosts quarterly committee meetings to ensure that all board-level commitments are met. This includes adequate review and guidance of proposed and approved strategies, and integration of continuous improvement on existing strategies. The board is responsible for (AGM Report 2020, page 3): 1) Overseeing continuous development and approval of groupwide strategic objectives; 2) Continuous review of management's performance in their execution of approved strategies and their associated accountability; 3) Clearly delegating authority to enable management to carry out their required duties; and 4) Promoting a culture of ethical leadership. Implats' board is committed to providing effective leadership through implementing group strategies for ethical leadership. These strategies are guided by the principles of the King IV Code on Corporate Governance (King IV), the Companies Act, 2008, the JSE Listings Requirements and all other applicable laws, standards and codes. These are further expanded on at www.implats.co.za. In 2019, a key strategic change implemented by Implats was the adjustment of the Group's Remuneration Policy to align with the attainment of their strategic objectives (AGM Report 2020, page 17). The board takes full responsibility for the review and approval of company's management, direction and overall performance, exercising independent judgement while considering the needs of stakeholders (AIReport, 2020, page 10). Emissions targets are set as part of the strategic planning and these are reviewed by the board
Scheduled – all meetings	Reviewing and guiding major plans of action	<Not Applicable>	Implats' board is committed to providing effective leadership through implementing group strategies and ensuring ethical leadership (AIR Report 2020, page 10). The board aims to maintain high standards of good governance to promote high quality decision making through overseeing the execution of decisions, which adhere to the groupwide policy, procedure and authority frameworks. All plans of action and decisions made by the board are monitored and reviewed through a continual improvement framework. Implats' board works continuously to maintain and develop its governance framework. This is done to ensure that good decisions are made and executed in a transparent and inclusive manner (AGM Report, 2020, page 2).
Scheduled – all meetings	Reviewing and guiding risk management policies	<Not Applicable>	The board is responsible for all Implats' risk management and identification. The board distributes duties to subcommittees, with various mandates. The health, safety, environment and risk (HSER) Committee is responsible for determining the group's top risks for all board committees (including risks associated with climate change), in light of ensuring harmless operations. The recently acquired Impala Canada operation has aligned with the Group HSER reporting protocols and associated management methods. The HSER committee monitors and reviews Implats' risk profile and aims to continuously improve the effectiveness of all risk management activities conducted by the Group. The committee monitors the adherence of Implats' various operations to the agreed risk limits situated within Implats' risk management policies. Other board sub-committees perform additional risk oversight through rigorous analysis of management's assumptions for their assigned Group risks (AIR Report 2020, page 14). Group-wide performance monitoring and reporting of identified risks and risk mitigation action plans are derived quarterly. Risks and opportunities regarding climate change are reviewed by the HSER committee. The material risks that are identified are reported to the board and are thereafter allocated to other board.
Scheduled – all meetings	Reviewing and guiding business plans	<Not Applicable>	Business planning forms the basis for Implats' groupwide objectives annually. Implats integrates their risk management approach, using risk tolerance levels, with their groupwide business planning and operational management efforts. The board is committed to oversee, monitor, approve and review corporate strategy, company policies, appropriate systems, major plans of action, annual budgets, and business plans (AIR Report 2020, page 47). The Group has aligned their short- and medium-term incentive principles to align with the business plans approved by the board (AGM Report 2020, page 24).
Scheduled – some meetings	Setting performance objectives	<Not Applicable>	Climate-related performance targets currently from part of the company's KPI's which were developed in accordance with the GRI Guidelines. The company's climate change related KPIs comprise of CO2 emissions (direct and indirect), Energy consumption, water consumption as well as air quality KPIs. Ultimately, performance in relation to thye KPIs remain the responsibility of of the company's board. Furthermore, through various performance management programmes, Implats commits to offering remuneration and employment benefit incentives for reaching or maintaining group performance objectives. Sustainability (inclusive of climate-related considerations) objectives for part of Implats' key performance indicators (KPIs) against which Implats' management are measured (ESG Report 2020, page 18 & 54).
Scheduled – all meetings	Monitoring implementation and performance of objectives	<Not Applicable>	Implats' Environment, Social and Governance (ESG) Report is dedicated as a responsibility of the Social Transformation and Remuneration Committee (STRCom). Input and assistance is provided from the other board-level committees, namely: Health, Safety, Environment and Risk (HSER), Social Ethics and Transformation (SET) committee and the audit committee. This monitoring is then further supported by Implats' executive committee (Exco). In accordance with the King IV principles, the board is responsible for setting strategic direction and oversight of monitoring and ensure accountability. Implats' implementation and performance is monitored through key performance indicators (KPIs). Implats monitors risks through KPIs to ensure that material changes to the group's risk profiles are evaluated in the context of risk appetite and risk tolerance limits; and that necessary actions are taken in a timely manner, using the risk management monitoring and reviewing methods (AIReport 2020, page 47).
Scheduled – all meetings	Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	Implats' Environment, Social and Governance (ESG) Report is dedicated as a responsibility of the Social Transformation and Remuneration Committee (STRCom). Input and assistance is provided from the other board-level committees, namely: Health, Safety, Environment and Risk (HSER), Social Ethics and Transformation (SET) committee and the audit committee. This monitoring is then further supported by Implats' executive committee (Exco). In accordance with the King IV principles, the board is responsible for setting strategic direction and oversight of monitoring and ensure accountability. Implats' implementation and performance is monitored through key performance indicators (KPIs). Climate-related targets are monitored and set with continuous improvement. These targets are approved by the board and board level committees prior to public disclosure. These targets and performance indicators are generally subject to production intensity. Within the CDP disclosures conducted annually, Implats reports on all targets and this reporting is signed off by Implats' Executive: Sustainability.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

C1.2a

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

Implats' management structure in response to climate-related management follows a hierarchical approach. The top-down and bottom-up approach is ultimately managed by (i) the Health, Safety, Environment and Risk (HSER) board-level committee, (ii) the CEO, (iii) the executive committee (EXCO), (iv) the business unit line management, (v) HSE specialists, (vi) site-level environmental operational teams and operators, and, (vii) external consultants. Additionally, Implats embarks on appointing climate change and sustainability consultants, as well as energy management consultants who play a supportive role throughout Implats' climate-related management structures.

HSER committee: This committee is responsible for directing strategic developments regarding health, safety, the environment and risk, as well as assessing the adequacy and appropriateness of the relevant policies, systems, standards, codes of practice and procedures associated with HSER (including those related to climate change). Implats uses their ESG Report as a means through which to report their material issues and findings in light of climate change and their sustainability performance. Implats' ESG Report is a means through which they are able to communicate material issues faced by the group, in light of climate change and sustainable operations, as well as a platform through which Implats' operational performance is monitored and reported on to shareholders and stakeholders. The ESG is dedicated as a responsibility of the Social Transformation and Remuneration Committee (STRCom). The committee has taken over the function of risk management identification and coordination of strategies. Group-wide risk and performance management strategies are reviewed quarterly by this committee to the board. EXCO lends support to the board's HSER committee and audit committee.

CEO: Implats' CEO holds a position at board-level on the HSER and STR committees. The CEO plays a key role in consolidating all sustainable development and environmental management related decisions, and the monitoring and management of climate-related risks. The CEO is accountable for the implementation of Implats' Carbon and Water Management Strategies, which includes the goal of mitigating the group's GHG emissions and achieving emissions reduction targets.

EXCO: Implats' EXCO lends support to the CEO regarding climate-related risk management. The EXCO is responsible for the implementation of decisions by the HSER, STR, SET and audit committee, reviewing performance in terms of various indicators (financial and non-financial) and assisting in the mitigation of GHG emissions, groupwide.

Executive - Sustainability:

Line Managers: Key performance indicators (KPIs) indicate the sustainability objectives of Implats' management and executives. These KPIs align HSE policies procedures and standards groupwide and site-specifically. The implementation of these objectives are managed and implemented onsite by line managers, who report quarterly back to the HSER committee on the strategic objectives to be met.

HSE specialists: HSE specialists support the implementation of strategies and with managing and monitoring Implats' operational performance.

Environmental Teams and Operators: Implats' environmental team (managers) are closely linked with project management and operation of the of the strategic initiatives. Policy implementation is perpetuated by the Group's ISO 14001 certification commitment for Implats' environmental management systems. The Group's standards are maintained through regular internal and external compliance audits. Implats operations reports to the HSER Committee, quarterly. This committee is responsible for monitoring trends that have an impact on Implats' GHG emissions production and the mitigation strategies in place to track reduction targets.

Consultants: Monitoring relevant sustainable development indicators (including GHG emissions, water use and the implementation of mitigation action plans) is the responsibility of Implats' sustainability consultant. The consultant is also responsible for conducting and coordinating Implats' GHG inventory, CDP response, water and climate related monitoring, TCFD alignment and assisting in the mitigation of Implats' currently climate-related impacts.

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	In spite of the prevalent impacts of the global COVID-19 pandemic, Implats was able to retain their incentive scheme in light of climate-related progress in 2020. Implats' incentive schemes are linked to short-term deliveries on objectives aligned with their medium- and long-term business plans, in light of sustainability and climate-related disclosures. Manager-level KPIs (key performance indicators) align with their short-term performance focuses with most attention on key business metrices, including decreased emissions and energy intensities. The Group has an overall objective to decrease GHG emissions, as well as to decrease non-renewable energy consumption. This aligns with climate-related motives (ESG Report 2020, page 54).

C1.3a

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

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction project Efficiency project Company performance against a climate-related sustainability index	The incentives provided for Implats' CEO is determined relative to several key performance indicators (KPIs) agreed upon between the Social Transformation and Remuneration Committee (STRCom) and the CEO. Responsible corporate stewardship, which includes ESG performance and climate change is a key deliverables for the CEO for FY2021 and have been defined in the CEO's balanced scorecard. Implats' incentive scheme is used for top management and executives as a means by which to motivate them to meet the annual performance targets and Group goals, aligned with the business plans. The STRCom is responsible for ensuring that the remuneration programme for each executive is aligned with the execution of Implats' strategy to deliver long-term sustainable growth in shareholder returns. The CEO is responsible for final approval and high-level implementation of the various sustainability management strategies. This includes plans to minimise the Group's carbon footprint, resulting in the Group meeting their emissions reductions targets. In this reporting year, Implats implemented a revised incentive scheme to ensure continuous, sustainable delivery on business objectives. As previously done, the incentives were calculated according to a percentage of the employee's salary working towards short term incentives, multiplied by the percentage of the short-term incentive dedicated to the environment specific KPI determined. The CEO's KPIs stipulate that 20% of the CEO's 24% short-term incentives are weighted towards the safety (including climate change related) KPI (AGM Report 2020 page 25-26). Thus, the sustainability incentive provided for the CEO makes up 4.8 % of his incentivised remuneration.
Environment/Sustainability manager	Monetary reward	Emissions reduction project	Implats' incentive scheme is used for top management and executives as a means by which to motivate them to meet the annual performance targets and Group goals, aligned with the business plans. The STRCom is responsible for ensuring that the remuneration programme for each executive is aligned with the execution of Implats' strategy to deliver long-term sustainable growth in shareholder returns. Implats' environmental/ sustainability managers refer to the Group's Environmental Team of project managers for Implats' strategic sustainable initiatives. The incentives for Implats' environmental managers in this reporting year were calculated as a percentage of the employee's salary, provided as a short-term incentive and multiplied by the percentage of the short-term incentive dedicated to safety, including climate change related targets. In this reporting year, this percentage was 20% (AGM Report 2020, page 26).
Management group	Monetary reward	Emissions reduction project Emissions reduction target	Implats' incentive scheme is used for top management and executives as a means by which to motivate them to meet the annual performance targets and Group goals, aligned with the business plans. The STRCom is responsible for ensuring that the remuneration programme for each executive is aligned with the execution of Implats' strategy to deliver long-term sustainable growth in shareholder returns. Implats' Management Group is responsible for the formulation and implementation of plans to mitigate the Group's carbon footprint through emissions reduction projects, to meet set targets. The incentives for Implats' management group in this reporting year were calculated as a percentage of the employee's salary, provided as a short-term incentive and multiplied by the percentage of the short-term incentive dedicated to safety, including climate change related targets. In this reporting year, this percentage was 20% (AGM Report 2020, page 26).
Energy manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	Implats' incentive scheme is used for top management and executives as a means by which to motivate them to meet the annual performance targets and Group goals, aligned with the business plans. The STRCom is responsible for ensuring that the remuneration programme for each executive is aligned with the execution of Implats' strategy to deliver long-term sustainable growth in shareholder returns. Implats' Energy Managers are responsible for the formulation and implementation of plans to mitigate the Group's carbon footprint through emissions reduction projects and energy efficiency measures, to meet set targets. The incentives for Implats' energy managers in this reporting year were calculated as a percentage of the employee's salary, provided as a short-term incentive and multiplied by the percentage of the short-term incentive dedicated to safety, including climate change related targets. In this reporting year, this percentage was 20% (AGM Report 2020, page 26).
Corporate executive team	Monetary reward	Emissions reduction project Efficiency project Company performance against a climate-related sustainability index	Implats' incentive scheme is used for top management and executives as a means by which to motivate them to meet the annual performance targets and Group goals, aligned with the business plans. The STRCom is responsible for ensuring that the remuneration programme for each executive is aligned with the execution of Implats' strategy to deliver long-term sustainable growth in shareholder returns. Implats' Corporate Executive Team or Executive Committee (Exco) are responsible for implementing the decisions posed by the HSER, STR, SET and audit committees and for reviewing performances in terms of the Group's non-financial indicators. The EXCO's KPIs stipulate that 20% of their 21% short-term incentives are weighted towards the safety (including climate change related) KPI (AGM Report 2020 page 25-26). Thus, the sustainability incentive provided for Implats' EXCO makes up 4.2% of their incentivised remuneration.
Business unit manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	Implats' incentive scheme is used for top management and executives as a means by which to motivate them to meet the annual performance targets and Group goals, aligned with the business plans. The STRCom is responsible for ensuring that the remuneration programme for each executive is aligned with the execution of Implats' strategy to deliver long-term sustainable growth in shareholder returns. Implats' Business Unit Managers or Line managers are responsible for the formulation and implementation of plans to mitigate the Group's carbon footprint through emissions reduction projects to meet set targets. The incentives for Implats' line/unit managers in this reporting year were calculated as a percentage of the employee's salary, provided as a short-term incentive and multiplied by the percentage of the short-term incentive dedicated to safety, including climate change related targets. In this reporting year, this percentage was 20% (AGM Report 2020, page 26).

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	1	This is the Budget Cycle period used within Implats' Group approach.
Medium-term	1	5	This is the Strategic planning cycle timeframe used in Implats' group approach
Long-term	5	30	This is the Life of mine planning used for Implats' group approach

C2.1b

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

Through the annual reporting to the CDP since 2007, Implats has established their business definition of a substantive financial risk (referred to as a material financial risk in our reporting) as a risk that poses threat to the sustainability of Implats' operations. These risks range from operational-related hinderances or risk, including water stress leading to operational stoppages, to social unrest leading to strikes and such related stoppages. Implats makes use of a risk appetite and tolerance framework to identify and manage all risks that could affect the mineral resources and reserves' tolerance levels. The materiality of these risk estimations are based on projections, which vary based on newly available information, various modifying factors, and changing market conditions. Implats also approaches the drafting of its Sustainability Report on the basis of materiality Implats' where our strategy focuses on our performance relating to social, economic and environmental issues that have been identified as having a material impact on the long-term success of the business.

Substantive risks also include the revocation of Implats' environmental and other compliance-related licences. Without the relevant licences to operate, Implats' operations will be hindered, and this poses a substantive financial and strategic impact to the group. Implats defines as substantive financial risk to their operations as the loss of one day's production at an average Implats mine site, and the associated monetary implications. These substantive risks are identified in relation to the life of mine of Implats' mining operations, as well as in relation to the rehabilitation timeframes considered for the various operations. Post-mine life rehabilitation requires Implats' investment in community development and support, thus all risks identified are considered in Implats' risk planning and awareness.

A structured internal risk management process has assisted Implats in identifying their strategic objectives and material sustainability focus areas.

Implats' HSER committee identifies water stress in South Africa, environmental impacts of shaft closures and tailings dams spillages, particularly in Zimbabwe as key substantive financial risks to their operations.

The risk management processes followed by Implats to identify and manage substantive financial and strategic impacts aligns with the principles stipulated in the ISO 31000 international risk management standard. Implats has identified the possible impacts of climate change on the security of water supply, rising energy costs and increasing energy insecurity as a material risk to the long-term success, sustainability, and continuity of their operations. This is because these impacts could result in operational stoppages, which is considered substantive or material to Implats' business operations.

The loss of one day's operations could result in a range of revenue losses, from R10 million to R100 million, depending on the operation which is experiencing a stoppage. Implats acknowledges that R10 million of lost revenue is a substantial sum of money to their operations, and that is a substantive financial impact.

Implats' Enterprise Risk Management process aims to find a balance between minimising risks associated with business activity while maximising the potential rewards. Using this risk management process, Implats is able to identify the risks which may pose substantive financial impact to the company and establishes the most appropriate response to mitigate the impacts of each identified risk.

The Group reviews and updates their risk profile on a quarterly basis. Annually, ten key risks are identified and ranked to ensure optimum awareness and key focus on minimising these risks throughout the year. These identified and ranked risks include both direct operational risks, as well as value chain related risks. Implats considers the impacts on both its direct operations, as well as its value chain, that could pose significant impact to its overall business model.

Indicators used to identify a substantive impact on Implats' operations is (i) if the risk poses a threat to cause work stoppages for a day or (ii) if the risk poses a financial loss of R10 million or more from the company's revenue earning.

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

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

Frequency of assessment
More than once a year

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

Description of process
Implats process to determine which climate-related risks and opportunities could have a substantive financial impact is an integrated, multi-disciplinary approach as the process covers Implats' complete operations, extending from exploration to mine closures, and including the final sale of the products. All environmental (including climate change), health, safety, social and financial impacts are considered in this risk management process which comprises of the following steps: 1. Identification of operational objectives (linked to Implats strategy) 2. Establishing the context: We consider the nature of the internal and external operating context (reviewed in our Integrated Report) and the views and interests of our stakeholders. 3. Identifying the risk: We establish the cause of the risk and evaluate all possible impacts (both positive and negative) 4. Analysing and evaluating the risk: With the aid of risk information management systems (CURA and ISOMETRIX), we identify and assess what this means for the achievement of our objectives, determine the risk rating (by severity and likelihood), identify and assess the controls (both existing or new). 5. Treating the risk: We consider all options to establish the most appropriate response for each identified risk. 6. Monitoring and reviewing the risk: We interrogate both the internal and external environment for material changes, monitor the progress of risk treatment actions to assess their effectiveness in improving the risk rating. 7. Reporting the risk: Each board sub-committee takes responsibility for the risks relevant to it, although overall oversight is vested in the HSER. Quarterly committee reports to the board include a formal risk review. Climate change risks are included as part of the aforementioned process and are included in the corporate risk register and are reported to the executive committee on a monthly basis and to the Health, Safety, Environment and Risk Committee of the Board on a quarterly basis. The risks are ranked by the product of the severity and the likelihood within the Annual Integrated Report. In addition, risks at Implats are managed in alignment with the ISO 31000 standard. Similarly, Implats identifies their opportunities through their risk appetite and risk tolerance levels. In order to identify and implement an opportunity with adequate backing, a risk assessment process is

followed on the opportunity to ensure that the risks associated with the opportunity are outweighed by the benefits of the opportunity. Furthermore, each individual business unit is encouraged to identify and control immediate risks. However, the monitoring and reporting of larger-scale climate-related risks and opportunities are allocated to be managed by the group's Environmental Manager. The forementioned risk management process steps can be seen in the following physical and transitional risk identification processes. Physical risk case study: 1. Implats' strategic vision is to be the world's best PGM producer, sustainably delivering superior value to all our stakeholders. 2. This includes the context of reducing our carbon footprint and the becoming more resilient to climate change. 3. However, our reliance on Eskom's unreliable coal fired power not only increases our carbon footprint, but also poses operational downtime risks to our mines during load shedding. 4. Applying our risk management tools, we have been able to confirm that Eskom's unreliable coal-fired generation fleet poses a material risk to our business as it results in business interruptions and increased emissions. 5. We have however identified renewable energy options as a response to this risk and also view renewables as an opportunity to lower our carbon footprint. 6. As part of our Business Plan for 2020, we are in the process of quantifying avoided carbon emissions through renewable energy utilization and continuously monitor regulatory measures that will enable us to implement more renewable energy at our operations. 7. As is the case in our IAR for 2020, we have reported this risk and also provided our response to the risk as part of our public reporting. The relevant committee monitors our progress to address the risk and reports to the Board on a quarterly basis. Transitional Risk case study: 1. Identification of operational objectives: As part of our Business Plan, we will ensure continued implementation of all legal requirements by assessing compliance to all applicable legislation at a defined frequency, which includes the Carbon Tax Act. 2. Establishing the context: Impala uses coal peas which make up the majority of the direct emissions. In addition, the minimum reporting threshold for reporting generator greenhouse emissions to the Department of Environmental Affairs is 10 MW (thermal energy). Impala Platinum Limited has generators which exceed the 10 MW (thermal energy) capacity whilst Marula Platinum does not which implies that Impala Platinum Limited (Rustenburg and Refineries operations) will be the entity that will be liable to pay direct carbon tax. 3. Identifying the risk: The Rustenburg and Refineries operations direct carbon emissions arise from the combustion of a variety of fuels (e.g. coal, industrial burning oil, diesel, natural gas) during the course of the operations. Impala's net carbon tax liability for the 2020 carbon tax year is approximately R12 million. This poses a significant financial risk to Impala in 2020, as well as in years ahead. However, Impala recognises that post 2022, the carbon tax relief mechanisms will be phased out. The uncertainty surrounding the phase out remains a key risk for the company. 4. Analysing and evaluating the risk: We have assessed the impact of the escalating carbon tax on our business and disclosed our liability up to FY2024 in our publicly available Business Plan. We will continue to calculate our carbon tax liability for future years in order to put the necessary measures in place to reduce the financial impact of the carbon tax on our business. 5. Treating the risk: We assessed the potential carbon tax liability for Impala Platinum and continue to evaluate our approach to reducing our emissions. We will optimise energy use to reduce our carbon tax liability. We also engage with the South African government on carbon tax matters through entities such as the Minerals Council of South Africa. 6. Monitoring and reviewing the risk: We will continue to assess and plan for our carbon tax liability going forward in order to ensure that we comply with the provisions of the Carbon Tax Act. 7. Reporting the risk: We are progressively integrating climate change mitigation into our core business activities, and are aligning our processes with climate change and GHG emission reduction policies and legislation. This enables us to report on such matters on an annual basis in our publicly available mainstream filings.

Value chain stage(s) covered
Upstream

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

Frequency of assessment
More than once a year

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

Description of process
Implats' process to manage climate-related risks and opportunities covers the material upstream value chain, including all purchased good and services, construction material and well-to-tank considerations of fuels and materials used. The environmental (including climate change), health, safety, social and various financial aspects which impacts on Implats' upstream value chain are all considered in this multi-disciplinary risk management process. Risks at Implats are managed in alignment with the ISO 31000 standard. Upstream climate change risks are identified using the same risk identification and management methodology as outlined in the direct operations section above and comprises of the following steps: Physical risk case study: 1. Suppliers and contractors are required to ensure the highest possible standards of environmental control and adhere to the best contemporary practice to ensure a safe work environment for all employees. 2. Establishing the context: Supplier must be cognisant of the risks that climate change poses to Implats upstream consumables and services. 3. Identifying the risk: Higher temperatures and changes in weather patterns may impact crucial transport systems, and increase the risk of damage to infrastructure as well as exacerbating other physical risks such as erosion, flooding and impact on future projects. 4. Analysing and evaluating the risk: We monitor and review the potential physical implications of climate change for our upstream and downstream operations. The main risks relate to temperature and precipitation changes that impact our upstream suppliers. 5. Treating the risk: We will investigate additional methodologies to influence suppliers to not only reduce their environmental impact, but to also consider the physical impacts of climate change. 6. Monitoring and reviewing the risk: We will continuously monitor the physical risks of climate change faced by our upstream supply chain and aim to suggest adaptation and mitigation responses to our suppliers in order to increase the resilience of Implats' upstream supply chain against climate change. 7. Reporting the risk: The HSER committee monitors and reviews the risk profile associated with Implats' upstream climate change risks and the effectiveness of all risk management activities and, in particular, monitors adherence to agreed risk limits. Transitional Risk Case study: 1. Identification of operational objectives: South Africa has introduced the carbon tax as an important component in South Africa's mitigation policy strategy to lower the greenhouse gas emissions of the country. 2. Establishing the context: The carbon tax not only has financial implication for Implats on a direct level, but certain upstream suppliers will also be passing through their carbon tax liabilities to Implats. 3. Identifying the risk: The indirect passthrough of carbon tax from our key suppliers, (such as, electricity, metals, cement and explosives) poses a significant transitional climate change risks related to our upstream operations. 4. Analysing and evaluating the risk: Implats has conducted and assessment and found that the second phase of the tax scheme (2023 to 2030) will present real exposure risk for Implats as Eskom will pass the carbon tax to electricity consumers such as Implats. Electricity use accounts for the overwhelming majority of our exposure to carbon tax cost impacts from 2023 onward. 5. Treating the risk: In order to reduce our dependency on Eskom and thereby reduce our exposure to the passthrough of carbon tax from Eskom, the Group is developing a low-carbon transition strategy and has appointed an energy specialist to lead its decarbonisation efforts. 6. Monitoring and reviewing the risk: We assessed the potential carbon tax liability for Impala Platinum and continue to evaluate our approach to reducing our emissions in order to mitigate our indirect carbon tax exposure related to our upstream value chain. 7. The HSER committee monitors and reviews the risk profile associated with Implats' upstream climate change risks and the effectiveness of all risk management activities and, in particular, monitors adherence to agreed risk limits.

Value chain stage(s) covered
Downstream

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

Frequency of assessment
More than once a year

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

Description of process

Implats' process to manage climate-related risks and opportunities covers all of their downstream value chain, tracking the life of all sold products and possible downstream uses. The environmental (including climate change), health, safety, social and various financial aspects which impacts on Implats' downstream value chain are all considered in this risk management process. Implats applies an integrated, multi-disciplinary approach to the identification and processing of company-wide risks, including those occurring within their upstream and downstream value chain, since risk management is of key importance to the sustainability of their operations. Risks at Implats are managed in alignment with the ISO 31000 standard. Climate change risks are included in the corporate risk register and are reported to the executive committee on a monthly basis and to the Health, Safety, Environment and Risk Committee of the Board on a quarterly basis. The risks are ranked by the product of the severity and the likelihood within the Annual Integrated Report. All environmental (including climate change), health, safety, social and financial impacts are considered in this risk management process which comprises of the following steps: 1. Identification of operational objectives (linked to Implats strategy) 2. Establishing the context: We consider the nature of the internal and external operating context (reviewed in our Integrated Report) and the views and interests of our stakeholders and markets we participate in. 3. Identifying the risk: We establish the cause of the risk and evaluate all possible impacts (both positive and negative) 4. Analysing and evaluating the risk: With the aid of risk information management systems (CURA and ISOMETRIX), we identify and assess what this means for the achievement of our objectives, determine the risk rating (by severity and likelihood), identify and assess the controls (both existing or new) 5. Treating the risk: We consider all options to establish the most appropriate response for each identified risk 6. Monitoring and reviewing the risk: We interrogate both the internal and external environment for material changes, monitor the progress of risk treatment actions to assess their effectiveness in improving the risk rating 7. Reporting the risk: Each board sub-committee takes responsibility for the risks relevant to it, although overall oversight is vested in the HSER. Quarterly committee reports to the board include a formal risk review. Physical Risk Case study: 1. Identification of operational objectives: As our operations are based in both South Africa as well as Zimbabwe, we depend on efficient logistics to transport concentrates to and from Zimbabwe to South Africa. 2. Establishing the context: Similar to our dependency on infrastructure in our upstream operations, our downstream operations also depend on infrastructure such as efficient transport systems to transport the PGMs. 3. Identifying the risk: Higher temperatures and changes in weather patterns can damage transport systems and damage to infrastructure necessary to transport our concentrates, thereby posing a risk to our income statement as a result of transport delays. 4. Analysing and evaluating the risk: We assess the risk continuously by considering any logistical delays and the reasons for such delays, be it climate change related (extreme weather) or related to other causes. 5. Treating the risk: We engage and work with road infrastructure agencies such as the Roads Agency Limpopo to construct roads which are able to withstand the impacts of climate change whilst also complying with provisions of our Social and Labour Plan. Impala Rustenburg and Marula operations have in recent years paved roads in host communities which have significantly reduced the levels of dust in the ambient air in these areas. 6. Monitoring and reviewing the risk: We continuously monitor the progress made on the construction of roads in order to report on the progress of the implementation of our social and labour plans. 7. Reporting the risk: In order to ensure compliance of our stated commitments in our SLPs, we ensure that progress of the SLP and its commitments such as road infrastructure is communicated to the the operational boards on a quarterly basis and to the Board (through the coard sub-commitees) on a quatery basis as part of comprehensive compliance reports. Transitional Risk Case Study: 1. As recognised in Implats' business strategy, it is essential to integrate climate change mitigation into our core business. 2. We supply PGMs to the world's automotive sector for use in catalytic converters in internal combustion engines. 3. The gradual phase out of internal combustion engines as a result of climate related emissions limitations and legislation aimed at the automotive sector puts Implats' business at risk. 4. The global focus on decarbonisation has been intensified by Covid-19, with increasing momentum for the establishment of a hydrogen economy, which has accelerated the mainstreaming of hydrogen and the varied applications of fuel cells. This bodes well for increasing industrial demand for platinum and iridium in the hydrolyser and fuel cell segments and provides a structural hedge against the expected decline in diesel-derived automotive demand in the longer term. 5. We have invested in the development of the fuel cell market as a potential demand source to displace the demand losses which will occur as a result of the phase out of internal combustion engines. 6. We continuously monitor the automotive, fuel cell and hydrogen markets in order to track and respond to current and future market trends for PGMs. The transitional risks and opportunities related are reported to our Board by the various board sub-committees, which includes the HSER committee. The climate-related risks regarding Implats' downstream value chain are considered to impact in the medium- and long-term. Thus, Implats evaluates these risks as such to ensure that Implats remains abreast off the pending risks and opportunities they may face.

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	Implats operates in South Africa (SA), Zimbabwe and Canada, all of which pose different regulatory requirements to Implats when it comes to climate change and related impacts. Implats thus remains consistently aware of regulations that they are required to follow in order to operate in these respective countries, to ensure that all regulatory requirements are adhered to and that they maintain their license to operate within these regions. Implats considers existing/ current regulations in SA, Zimbabwe and Canade as relevant risks to the continuity of their operations since adhering to the relevant regulations poses additional costs, increased monitoring requirements and other such implications. An example of a current regulatory risk for Implats' business process is the SA requirement for mandatory reporting of greenhouse gas emissions and the recently introduced Carbon Tax Act associated with the mandatory reporting. These regulations require companies who participate in certain activities to report on their emissions and these companies are then liable to pay a tax on emissions. The Carbon Tax Act and the GHG Reporting Regulations are included in Implats' risk assessment processes to ensure that they remain abreast of all regulatory actions with which they must comply. In 2020, the Department of Forestry, Fisheries and the Environment in South Africa introduced amendments to the Carbon Tax Act in the Taxation Laws Amendment Act. Government also published updates to the Greenhouse Gas Reporting Regulations. The Amendments to these Regulations have been noted by our legal teams and we have adjusted our reporting and carbon tax calculations to reflect these changes. In Canada, climate change legislation continues to evolve and Impala Canada adjusts its practices accordingly. In Zimbabwe, there is no carbon tax, however Implats continues to monitor environmental legislations in order to ensure it maintains its licences to operate in the country.
Emerging regulation	Relevant, always included	Implats operates in South Africa (SA), Zimbabwe and Canada, all of which pose different regulatory requirements to Implats when it comes to climate change and related impacts. Implats thus remains consistently aware of various regulations anticipated to occur within these regions which would impact on their operations. This allows Implats to remain abreast the incoming regulations to which they would be required to adhere to maintain their license to operate. Implats considers emerging regulations in SA, Zimbabwe and Canada as relevant risks to the continuity of their operations since having to adhere to upcoming regulations will pose additional costs, increased monitoring requirements and/or other such implications, for which Implats must make provision. An example of a risk posed by emerging regulations to Implats is the incoming Climate Change Bill of SA. The Draft Climate Change Bill requires that companies draft and submit carbon budgets. The carbon budgets will therefore change from being voluntary to being mandated. The South African Government has repeatedly stated that the Climate Change Act will be finalised in 2021. The platinum mining sector may be included in the second phase of the carbon budgeting process, post 2020. This will mean that Implats may be required to compile a carbon budget and therefore increase expenditure on renewable energy and associated infrastructure in order to meet its carbon budget commitments. This may also result in increased spending on energy efficiency and could therefore affect the company's expenditures and capital. Impala is actively engaged in discussions with the relevant stakeholders on how the carbon budgeting system should work.
Technology	Relevant, always included	All Implats' operations make use of various mining and monitoring technologies. These technologies are assessed and managed under Implats' risk management processes, where risks (including climate-related risks) that may impact on these technologies are identified, monitored and minimised through technological and design adjustments/ changes. Implats recognises the global shift towards low carbon technologies as an opportunity for their business strategy and associated investments. Implats has invested in fuel cell technology research in line with the low carbon economy transition. The increased interest in the mobile use of fuel cell technology has afforded Implats increased opportunities in light of their platinum production. As an example of how Implats aims to take advantage of fuel cell technologies, we developed and successfully implemented the first hydrogen fuel-cell powered forklift and hydrogen refuelling station in Africa, at the base metals refinery at Impala Springs. The project showcased novel metal hydride technology for on-board hydrogen storage and compression. The successful prototype fuel cell forklift reduces noise levels and emissions and continues to perform well. The project motivated investigations into the use of fuel cell technologies within other material movement equipment. The commercialisation of this technology continues to be reviewed for economic viability in conjunction with the project partners. We believe these efforts should be aligned with the special economic zone (SEZ) for fuel cell development that is under development in the Springs region, aimed at driving local mineral beneficiation. The SEZ comprises 16 hectares of land donated by Implats, adjacent to Impala Springs. The project in partnership with various government departments is a longer-term strategic investment to facilitate platinum beneficiation. The infrastructure includes the availability of pure hydrogen gas and natural gas on site. In 2020 and beyond, the Group aims to review its fuel cell road map and will seek to engage strategic partners to develop and optimise our participation in the value chain.
Legal	Relevant, always included	Implats continuously monitors legal developments both domestically as well as in internationally. As an example, in South Africa, there has been legal developments in the climate change litigation space. In Earthlife Africa Johannesburg v Minister of Environmental Affairs, the High Court was called to pronounce on the necessity of a climate change impact assessment in an environmental impact assessment (EIA) for the impact that the proposed coal-fired power station will have on the environment. Since the judgement, it has become common practice to include climate change impact assessments as part of the EIA process in accordance with international best practice. Implats has noted this legal development and will ensure that any new operations requiring an environmental impact assessment will consider the impacts of climate change going forward. In addition to the above, Implats is also aware of the fact that many countries around the world are putting mechanisms in place to ban the sale of new cars with internal combustion engines in order to cut missions. Although most of these bans relate to future dates beyond 2030, we understand that such countries include China, Japan, the UK, South Korea, Iceland, Denmark, Sweden, Norway, Slovenia, Germany, France, the Netherlands, Spain, Portugal, Canada, the 12 U.S. states that adhered to California's Zero-Emission Vehicle (ZEV) Program, Sri Lanka, Cabo Verde, and Costa Rica. As Implats' key downstream market is the automotive sector, we continuously monitor these legal risks in order to have contingency plans, such as fuel cell developments in place, to hedge the risk associated with the ban of internal combustion engines.
Market	Relevant, always included	Implats remains continuously aware of how uncertainties in future market trends pose a significant risk to their sustainability. An example of a market risk for Implats is the uncertainty around the future demand for jewellery and the continuous shift in vehicle technologies towards electric vehicles and away from diesel engines. Both of these market related aspects pose significant risk to the demand for the PGMs, Implats' primary product. The changing demand for these products may be driven by climate change sentiments and the desire to move away from energy-intensive products and services. These market uncertainties pose risk or opportunities for PGM producers like Implats, based on increase climate vulnerability awareness. This forms part of Implats' climate-related risks to be considered in the near future for possible variations. These climate-related risks are managed and anticipated though continuous assessment and monitoring of mitigation measures for the risks. Markets are regularly monitored and, through engaging with relevant industrial bodies regarding market and technology changes that are influenced by climate change impacts, Implats' is consistently aware of possible future market risks they may face based on climate-related changes.
Reputation	Relevant, always included	Implats acknowledges the importance of maintaining a positive reputation since the Group's share price is subject to reputational risks, which is directly related to investor perceptions. In more recent years, Implats has noted investor trends, which take interest in environmental, social and governance indicators (as evident with the update of the King IV Report on Corporate Governance) and other such efforts. These indicators of interest for investors includes climate change mitigation and adaptation efforts of the company and combatting social vulnerabilities. An example of a reputational risk that Implats has identified as relevant is how Implats' perceived response to climate change and climate-related risks may influence investor behaviour (positively or negatively). Implats' response and mitigation efforts in light of climate change impacts can either evoke confidence by investors or could result in investors withdrawing support if they do not feel that Implats is adequately prepared to combat the anticipated impacts of climate change. These perceptions by investors of Implats' climate change awareness may have knock-on impacts on the company's reputation and share price. Thus, climate-related risk assessments are conducted throughout Implats' operations, since reputational risks rely on the information obtained from these assessments and reputation risks are included as part of Implats' climate related risk assessments. As such, these reputational risks are (1) managed and (2) anticipated. These risks are anticipated through: (a) continuous improvements of assessment and mitigation monitoring methods of Implats' climate-related risks; and (b) consistent awareness of the climate change mitigation measures of their fellow mining companies. Implats strives to match, if not exceed, the climate-related adaptation measures in place across the mining industry's operations.
Acute physical	Relevant, always included	Acute physical risks are relevant because climate change impacts such as increased extreme weather events (e.g. flooding or droughts) affect the physical operations of mines, the wellbeing of communities surrounding the Implats' operational areas, as well as the wellbeing of the company's workforce. An example of how acute physical risks may impact Implats' business operations is through the increased occurrences of drought. Both South Africa and Zimbabwe are considered water stressed regions. Implats' operations within these regions thus face increased risk in light of climate change impacts and the anticipated increase in drought occurrences. Increased drought events will result in a higher strain on water resources in areas surrounding Implats' operations. Prolonged periods of drought will pose major risk to the continuity of Implats' operations in those areas (since the mining operations are dependent on water availability). This may result in Implats having to decrease their production or stop production altogether. These events are significant to Implats' strategic planning since these are noted to pose material risk/ substantive impacts to the company (i.e. could result in production stoppages). Implats has over recent times attempted to minimise their risks posed by climate-related impacts through various methods, including freshwater recycling initiatives and the installation of more water efficient technologies, to minimise their freshwater consumption and in turn minimise the possible impacts that a decrease in freshwater availability could pose. Acute physical risks are included in all climate-related risk assessments and these are integrated into all Implats' business strategies.
Chronic physical	Relevant, always included	Climate change directly refers to the long-term changes in average atmospheric temperatures. Thus, chronic physical risks such as increased ambient temperatures would pose a relevant and significant impact to Implats' operations. An increase in average atmospheric temperatures would impact on the temperatures of surface water sources, which Implats uses for their mining operations. Ambient air is used for transferring heat from the chillers used to cool water which in turn maintains underground temperatures for a safe working environment. An example of a chronic physical risk for Implats is that hotter ambient conditions require more energy for air cooling and more water for cooling systems, both which are used in their underground operations to ensure working conditions are safe. A hotter and drier climate also increases evaporation and thus increases Implats' freshwater consumption. This can increase the costs of pumping and recycling of water, as well as costs of purchasing water. These chronic risks are included in the climate-related risk assessments though constant assessment and monitoring of mitigation measures. Through regularly consistent water monitoring and efficiency measurements, Implats maintains awareness of their operation pattern changes and the implications thereof on operating costs, employee health and other such impacts

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

Technology	Other, please specify (Dependency on coal-based energy infrastructure)

Primary potential financial impact
Decreased revenues due to reduced production capacity

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

Company-specific description
Both Zimplats and Impala Canada use renewable energy sources. However, Implats' South African operations are supplied with electricity by Eskom primarily from its Ararat Main Transmission sub-station (MTS). The total installed capacity at Ararat MTS amounts to 945MVA. Furthermore, the existing mines and villages surrounding Impala's operations are also supplied with electricity by Eskom. Impala recognises that in South Africa, power supply interruptions from power utility Eskom, poses operational risks to our operations. In fact, the impact of load shedding due to constrained electricity supply capacity resulting in business interruptions (in RSA and Zimbabwean operations) is ranked as the company's 3rd most threatening residual risk in 2020. Mining, mineral processing, and refining operations have a critical dependency on and are major consumers of electricity. Disruptions in its supply negatively impacts Implats' ability to operate effectively and limits our capacity to deliver sustained value to our stakeholders. Furthermore, Eskom's failure to adopt and implement more renewable energy technologies as part of the generation fleet, has resulted in the South African energy grid being an emission intensive system, which results in entities like Implats to have significant Scope 2 emissions. Eskom's unsuccessful investment in new technologies and the delays in rollout of renewable energy in South Africa is also the result of historical regulatory provisions which aided the development of more coal-base generation capacity

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
High

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

Potential financial impact figure (currency)
267000000

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

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

Explanation of financial impact figure
The value provided is the revenue that would be lost per day from operations in the regions exposed to electricity shortages. Revenue from Zimbabwe and South Africa in 2020 was 97.5 billion Rand. Revenue divided by the number of days in the year gives 267 million Rand lost per day of load shedding

Cost of response to risk
40000000

Description of response and explanation of cost calculation
Implats views this risk as an emerging opportunity, especially when considering the recent regulatory developments taking place in South Africa whereby it was announced that entities will be able to build energy generation plants with a capacity of up to 100MW for own use without having to license such facilities with the National Energy Regulator of South Africa (NERSA). The recent announcement by the South African government, as mentioned above, significantly reduces the administrative burden of generating electricity for own use. This provides Implats with an opportunity to build our own renewable energy plants to power our operations, whilst also driving down our scope 2 emissions. A study to supply solar energy to our Marula Mine is in its early stages and continued work in this regard will be prioritised. Furthermore, we engage with ZESA (Zimbabwean utility) and Eskom (South African utility) to secure stable power supply and to review of power tariffs while exploring solar power as an alternative sustainable source. As a response to the shortages from Eskom, we have put in place a load shedding power reduction schedule that includes a revised low-electricity supply business planning cycle, back-up generators for emergency systems and simulation of electricity outages and their impact on our operations. We also engage with municipalities to identify opportunities to increase our renewable energy procurement, not only to benefit our direct operations, but also our surrounding communities. Increasing our share in renewables is also an integral part of our Group Environmental Business Plan for 2021 which states that Impala will continue to implement projects aimed at harnessing renewable energy. Such efforts will be set out in a decarbonisation/renewable energy strategy and an ESG strategy whichis currently under development. In this regard, we have completed studies at our Zimplats operations for a 110MW solar plant in order to power our Zimplats operations with potential for excess generated power to be channelled to Zimbabwe's national grid. Calculation of cost: The short-term means to mitigate against the reliability of the national utilities in Southern Africa is to use backup generators. Diesel generators cost approximately R4.36/kWh to operate. Impala used 3.34 TWh or an average of 9148 MWh per day in 2020. R4.36 x 9148 MWh = 40 Million rand per day to run backup generators.

Comment

Identifier
Risk 2

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 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
Impala has identified the maintenance of our social licence to operate and good stakeholder relations as a top 10 residual risk. More specifically, Impala considers the inability to secure and maintain a social licence as a result of the company's failure to provide value enhancing sustainability initiatives and maintain good stakeholder relationships as a key risk. The 'Social License to Operate' (SLO) generally refers to the informal acceptance or approval by local communities and other stakeholders of Impala's operations. However, climate change is an existential threat to the Impala's operations and the ability of the company to keep and maintain its social license to operate. The mining and metals sector is facing greater scrutiny from end consumers, demanding a transparent, ethical supply chain, as well as a lower carbon footprint. We believe our efforts towards effectively reducing our emissions and engaging with our surrounding communities will be key to keeping our social licence to operate, as the jurisdictions we operate in become more involved in curbing risks associated with climate change. Increased stakeholder pressure and the rise of ethical (environmental, social and governance, or ESG) investing continues to keep our license to operate top of mind.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

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

Potential financial impact figure (currency)
58000000

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

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

Explanation of financial impact figure
In the event where Implats' Social License to Operate is compromised through reputational damage, it can lead to significant financial impacts for the company. Eeven a 0.1% decrease in revenue as a result of a damaged reputation can lead to a loss of R58 million rand (based on our revenue of R88 billion as at the end of 2020).

Cost of response to risk
133402700

Description of response and explanation of cost calculation
Impala aims to develop, protect and strengthen our license to operate through industry leading ESG performance. Impala monitors and reviews the potential physical implications of climate change for our operations and neighbouring communities and implements appropriate adaptation responses. The main risks relate to changes in ambient temperature, precipitation and prolonged droughts, impacting water security and supply. Without proper management, all of these aspects threatens our social license to operate. In order to improve the resilience of our surrounding communities against climate change and maintain our social license to operate, Impala's Social and Labour Plan has committed to invest in upgrading community infrastructure in Freedom Park (R50 mil), build roads and water channels in Luka (R16 mil) and Kanana (R4 Mil), undertake a water project in Luna (R30 Mil), and invest in the Boitekong Attenuation Dam Rehabilitation project (R20.7 mil). In addition to the infrastructure expenditure mentioned above, in 2020, Zimplats installed solar powered boreholes and storage tanks at two schools and in a village (R893400.00) . This will ensure improved access to clean water for up to 650 pupils, providing a safer learning environment and will support nutrition gardens to mitigate hunger in the communities. The borehole sites also serve as watering points for livestock. Zimplats' planned 110MW solar plant would also supply 80MW of power required at the Zimplats Mine, reducing the demand on the national power grid and could potentially channel excess power generated to surrounding communities, providing communities with clean energy. In this regard, the feasibility was approxomitely R5509300.00. The costs of all the measures above amount to approxomitely R133.4 million. Zimplats, Marula and the Refineries also implement site-specific biodiversity management plan which cost the froup approxomitely R11 250 884. The Refineries is near the Cowles dam that feeds into the Blesbokspruit, a designated Ramsar Convention wetland of international importance that is deemed under threat. Although the Refineries is not seen to have any direct impact on this ecosystem and the microclimate in the area, it continues to partner in environmental education and conservation initiatives in the area to educate communities on environmental matters and climate change.

Comment

Identifier
Risk 3

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

Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description

As part of South Africa's climate change commitments, the country introduced the Carbon Tax Act 15 of 2019 in June 2019. The carbon tax poses the following significant risks to Implats' operations. Approximately 89% of the Group's GHG emissions (3 225 kilotonnes) are associated with electricity consumption, with the balance (approximately 419 kilotonnes) mostly associated with the direct use of coal and diesel in mining operations (such as generating heat for drying concentrate and generating steam). These activities are exposed to the carbon tax liability and will have an impact on Implats' income statement. 1) Carbon tax was set at R120/tCO2e for the 2019 tax year, increasing by CPI +2% until 2022 and CPI thereafter. The carbon tax return for 2020 is due by 29 July 2021 and is based on a carbon tax rate of R127.00/tCO2e. Not only will Implats be required to pay carbon tax directly to the South African Revenue Services, but Implats will also be subject to carbon tax passthrough costs as a result of suppliers' direct carbon tax liabilities. This will materially increase Implats' operating costs. The expected pass-through cost of electricity from 2023 onwards is anticipated to reach as much as R0.16/kWh by 2030. This will materially increase Implats' operating costs in the medium- to long-term. Furthermore, liquid fuels (diesel and petrol) prices increased due to carbon taxes imposed at when purchasing the fuel. Diesel increased by R0.09/litre and petrol increased by R0.08/litre on the introduction of the tax. Prices are likely to increase further, and seeing as Implats used in excess of 25 million litres of diesel in 2020, the indirect carbon tax payable on the group's diesel usage will be significant. The relief mechanisms provided to carbon taxable entities in Part II of the Carbon Tax Act, (Allowance for fossil fuel combustion, 8. Allowance for industrial process emissions, Allowance in respect of fugitive emissions, Trade exposure allowance, Performance allowance, Carbon budget Allowance, Offset allowance) will be phased out from 2023 onwards. The way in which the mechanism will be phased out is still unclear and the uncertainties surrounding such phase out pose a risk to Implats in terms of the company's projected carbon tax liability.

Time horizon
Medium-term

Likelihood
Virtually certain

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)
178000000

Potential financial impact figure – maximum (currency)
211000000

Explanation of financial impact figure
In the interim (up to 2030), the potential financial impact related to indirect carbon tax costs is estimated to fall between R178 million and R211 million, based on FY2019 information. Calculations on indirect carbon tax on diesel and petrol: In FY2019, Implats consumed 25 044 kilolitres of diesel and 600 kilolitres of petrol. Assuming that the same levels of fuel consumption are used in FY2021, Implats can expect increased operating costs of R1.87 million for calendar year 2020. However, during the second phase of the carbon tax from 2022-2030, there is a risk that carbon tax on these fuels will be increased. Calculations on indirect carbon tax on electricity: Although there are currently no pass-through costs on electricity, the indirect cost are anticipated to increase between 2023 and 2030. If relief mechanisms for carbon tax are removed by 2030 and the carbon tax on electricity could increase electricity costs by between R0.02/kWh (lower range estimate) to R0.16/kWh (higher range estimate). Assuming the same electricity consumption level as in FY2020 in 2023 (3 339 000 MWh), electricity costs could increase by between R 176 million and R209 million. The potential financial impact range was calculated by summing all of the abovementioned costs and using the lower range electricity price increase for the "minimum" and the higher range electricity price estimate for the "maximum" calculations

Cost of response to risk
115000

Description of response and explanation of cost calculation
In order to reduce our emissions associated with diesel usage, but to also reduce the amount of indirect carbon tax that Implats' pays as a result of diesel combustion, the group's current focus is on developing opportunities to replace diesel with low-carbon fuels and the potential application of solar photovoltaic (PV) technology to generate electricity. The rate of carbon tax will also be subject to the applicable tax-free allowances as provided for in the Carbon Tax Act. Section 11 of the Carbon Tax Act sets out the formula to be used by taxpayers to calculate the applicable performance allowance. For a tax period, taxpayers that perform better than an approved sector or subsector GHG emissions intensity benchmarks will qualify for a performance allowance. The performance allowance seeks to encourage firms to reduce the carbon intensity of their production processes relative to their peers and promote the competitiveness of local products. A project has been initiated to ascertain if Impala Platinum would qualify for a performance benchmark allowance as per regulations gazetted on the 19th June 2020. The project cost the group R50 000.00 If the study finds that Impala is in fact performing better than its peers, the company will be eligible to receive a maximum allowance of 5 %. Implats conducts an annual GHG emissions assessment, to identify areas for emissions mitigation and room for improvement. In FY2020, Implats' annual GHG emissions assessment costed R 65 000. The costs above amount to R115000.00 Implats is also reducing electricity consumption (through energy conservation programmes), which will decrease operating costs related to Eskom's carbon tax passthrough costs. Initiatives implemented across the Group include underground energy-efficient lighting, optimised use of underground compressed air systems, installation of power factor correction equipment, and diesel performance management. At Zimplats, our focus is on installing energy efficient equipment and increasing the uptake of solar lighting and heating.

Comment

C2.4

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

C2.4a

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

Identifier
Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

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

Company-specific description
Climate change and the effects thereof are being considered by countries throughout the world, in efforts to minimise global climate change. Impala recognises that its PGM products will aid the word in the low carbon transition. PGMs are used in air and water purification processes and are poised to unlock the versatility of green hydrogen in both stationary power generation and transport, where hydrogen can be used with PGMs in fuel cells. Although the bulk of PGMs are currently being used in autocatalysis, the potential of PGMs to be used in fuel cells is currently being explored by Impala as an opportunity related to the transition of the global economy to a low-carbon future. The pressure to address climate change has resulted in innovative energy solutions such as the use of hydrogen fuel cell technologies. According to the International Renewable Energy Agency (IRENA), this transition will transform the global energy sector from fossil fuels to zero-carbon energy by the second half of this century and hydrogen will play a central role within the world's new energy mix. According to the Hydrogen Council, 18 countries already have roadmaps or strategy documents setting out their intentions to use hydrogen as a source of alternative energy in the future. As such, while PGM-based catalysts are expected to benefit from the fuel cell electric vehicle technology within the hydrogen economy, their application extend way beyond just powering a new generation of vehicles. Platinum will assume a particularly important role in the production of hydrogen as a clean energy source. It is the catalyst material used in the proton exchange membrane (PEM) electrolysis process to produce green hydrogen if the electricity input is harnessed from green renewable energy sources. Hydrogen can also decarbonise numerous other processes that currently rely on fossil fuels. Important applications include the potential use of hydrogen gas instead of coke in steel production. As the cost of producing hydrogen continues to decline in line with the declining cost of renewable energy production and large-scale adoption of electrolysis technologies, other new applications are likely to emerge. As such, the potential for hydrogen to decarbonise not only the transport sector but a broader proportion of the energy sector, is extremely promising and may be a game changer for sustained demand for PGMs

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
High

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

Potential financial impact figure (currency)
48900000

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

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

Explanation of financial impact figure
The demand for PGMs and therefore revenues, specifically palladium and rhodium, increased in FY2020 and is expected to increase further in future with the increasing demand for fuel cell technologies (emerging markets). According to the PGM Market Report of February 2020 by Johnson Matthey, the potential long-term financial impact based on the increase demand for palladium and rhodium (which makes up 33% and 6% of Implats' PGMs in FY2020, respectively) could be an increase of 14% each. The potential financial impact was calculated by increasing the current market values of Implats' palladium and rhodium products by the 14% increase in demand estimated in the February 2020 PGM Market Report by Johnson Matthey. The market values/ estimated revenues for palladium and rhodium are expected to increase by approximately R32.1 million and R16.8 million per year respectively, the sum of which gives the potential financial impact figure of R48.9 million in additional revenues.

Cost to realize opportunity
10925000000

Strategy to realize opportunity and explanation of cost calculation
Implats is proud to be at the forefront of technology developments related to the hydrogen economy via our research and development of fuel cells. They offer higher efficiencies than conventional technologies, operate quietly and can be economically scaled to fit many applications. The global focus on decarbonisation has been intensified by Covid-19, which has accelerated the mainstreaming of hydrogen and the varied applications of fuel cells. In order to realise the opportunities of PGMs related to fuel cells, Impala will leverage the special economic zone for fuel cell development to develop skills capacity and support fuel cell manufacturing and deployment. Since 2015, Impala has spent R25 million in developing the fuel cell initiative in collaboration with academic institutions and commercial partners. In switching to low-carbon energy sources, our current focus is on developing opportunities to replace diesel with hydro-fuel technology and using solar photovoltaic (PV) cells to generate electricity. We have conducted a feasibility exercise to assess the opportunities and challenges associated with power self-generation. In 2016, we developed and successfully implemented the first hydrogen fuel-cell powered forklift and hydrogen refuelling station in Africa, at the base metals refinery at Impala Springs. The commercialisation of this technology continues to be reviewed for economic viability in conjunction with the project partners. We believe these efforts should be aligned with the special economic zone (SEZ) for fuel cell development that is under development in the Springs region, aimed at driving local mineral beneficiation. In the longer term, the application of fuel cells at Impala's operations will provide energy storage options to clip peak demand and cleaner underground operation of equipment. The Group also acquired 100% of North America Palladium (now operating as Impala Canada) in December 2019. The Group paid a total purchase consideration of R10.9 billion. This acquisition will allow the group to supply the increased demand for the metal due to its use in catalytic converters. The palladium market has been in a production deficit for several years, and tighter pollution standards in Europe and China are spurring demand for the metal from automakers.

Comment

Identifier
Opp2

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

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

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

Company-specific description
Although Implats' main focus and revenue drivers is the PGM spectrum of metals, we also have gold and copper reserves that we mine as part of our PGM operations. The probability that climate change could increase rather than decrease geopolitical uncertainty. The potential impacts of climate change on the geopolitical environment can be seen in the World Economic Forum's Global Risk report for 2021. Gold has traditionally been a hedge against geopolitical uncertainty. The growing significance of gold as an investment (and risk management) asset may well offset any negative impacts that climate change may have in gold's value chain as well as act as a hedge against potential demand decreases for PGMs. In the face of potential geopolitical unrest related to climate change, the stability of gold and Implats gold reserves will stabilise the company's revenue stream and can therefore be considered as a potential opportunity related to climate change. Our platinum revenues have also benefited from gold's risk management properties and investment sentiments related to gold, as Platinum prices are largely linked to gold prices. Investment activity in platinum has been supported by its price discount to palladium and a rise in gold investment action. Impala's small copper reserves also present opportunities related to the development if the renewable energy sector. The price of copper has overwhelming been on an upward trend since the early 2000's. Since electricity transformed modern life, copper has been prized for its conductive properties. It is the material building block of power grids, electrical systems in buildings, and energy generators, both clean and dirty. As a result of the increased use of copper in energy technologies, and more specifically, renewable energy technologies, the demand for copper is set to increase significantly, especially in the infrastructure sector.

Time horizon
Long-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)
491000000000

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

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

Explanation of financial impact figure
By 2030, the gold price is expected to reach approximately US$4700 per troy ounce which represents a 157% increase from the 2020 gold price of US$1 359. Based on Implat's current attributable Moz of gold (11Moz), such a price increase will result in significant in increase in the value of our gold reserves from approximately US$13.6 billion in 2020 to US$47.1 billion in 2030 when considering the gold price increase applied to our gold reserves. This represents an increase of of US$33.4 billion (or R491 billion) The demand increase and associated increase in copper price by 2030 (projected by the world bank to reach US$7935/mt) will also result in a significant increase in the value of Implats' copper reserves. Implats is however still in the process of calculating what the exact financial impact related to the copper price increase will be.

Cost to realize opportunity
446700000

Strategy to realize opportunity and explanation of cost calculation
In FY2020, Impala had a gold output of 79.5koz. In FY2018, Implats purchased a 15% interest in the Waterberg project for US$30 million (R, situated in the Blouberg Municipal/Administrative District in the Limpopo province on the northern limb of the Bushveld Complex. Implats also acquired a right of first refusal for concentrate offtake. A mining right application was submitted in FY2019 under DMRE reference number LP30/5/1/1/2/10161MR, covering an area of 22 397.79 hectares, for the following minerals: PGMs, chrome, cobalt, copper, gold, iron, lead, molybdenum, nickel, rare earths, silver, vanadium and zinc. The application is still being processed by the DMRE.

Comment

Identifier
Opp3

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

Opportunity type
Resilience

Primary climate-related opportunity driver
Other, please specify (Increased resilience of post-mine closure landscape to climate change)

Primary potential financial impact
Increased value of fixed assets

Company-specific description
Implats recognises land management practices and land rehabilitation is an essential part of our operations and their legacy. We acknowledge that the land we mine will post-mine closure provide principal bases for human livelihoods and well-being including the supply of food, freshwater and multiple other ecosystem services, as well as biodiversity. Land ecosystems and biodiversity are vulnerable to ongoing climate change, and weather and climate extremes, to different extents. Sustainable land management can contribute to reducing the negative impacts of multiple stressors, including climate change, on ecosystems and societies. Ensuring effective rehabilitation is an important regulatory, financial and reputational issue for the Company. The Group strategy for land rehabilitation is to ensure a sustainable and functional post closure landscape. We continuously investigate alternative post closure land uses which is aligned with our host communities' expectations and supportive of economic opportunities after mining. Land management is therefore an opportunity for the group to contribute to the climate resilience of the environment and communities in and surrounding Impala's operations

Time horizon
Long-term

Likelihood

Very likely

Magnitude of impact
High

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

Potential financial impact figure (currency)
5000000

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

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

Explanation of financial impact figure
The Group strategy towards land rehabilitation is to entrench the concept of “design for closure” throughout the operations by ensuring that all aspects of rehabilitation are defined at the project planning phase. By implementing our biodiversity management plans properly, we reduce unxepcted expenditures on land management practices and also avoid penalties and fines associated with non-compliace to our biodiversity management plans which can amount to R5 million when considering the penal provisions of South Africa’s environmental legislation

Cost to realize opportunity
600000

Strategy to realize opportunity and explanation of cost calculation
Landscape Function Analysis (LFA), which is aimed at measuring functionality and sustainability, is currently used as a monitoring tool at the rehabilitated opencast sites at the Rustenburg operations as well as the rehabilitated tailings side slopes at Marula. Furthermore, we determine the biodiversity impacts of our mining operations through our environmental authorisation processes, and we manage these according to site-specific biodiversity management plans and standards. Impala Rustenburg monitors and measures its performance against a formal biodiversity management plan that was informed by the Mining and Biodiversity Guideline developed by the South African National Biodiversity Institute. These processes all consider the impact of climate change on land management aspects such as erosion and vegetation. Our re-vegetation practices therefor take into account the impacts of climate change and aims to equip surrounding communities with ecosystem services which are climate resilient. The costs associatd with the monitoring of the biodiversity management plans amounted to R315 000.00 in 2020. Our mining rehab also has a strong social aspect and Implats’ operations actively engages in environmental awareness and conservation initiatives in their communities, with a focus on educating the youth. For example, we spent a day with learners at Rasimone Primary School in the Rasimone village. The aim was to create awareness around the importance of planting indigenous trees to sustain the country’s natural environment, and to educate about alien plant species. The Group planted indigenous trees at the school with the learners and showed them how to look after them. We believe these engagements not only improves the conservation of the biodiversity in areas in which we operate, but also contributes to the resilience of our surrounding communities to climate change. The costs associatd with the monitoring of the rehabilitation amounted to R285 000.00 in 2020. The total costs of the measures above amount to R600 000.00.

Comment

C3. Business Strategy

C3.1

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

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment
Row 1	Yes, in the next two years	Yes, we intend to include it as a scheduled AGM resolution item	In planning for future energy requirements, we are developing a low-carbon transition strategy and have appointed an executive to lead our decarbonisation efforts. This strategy will reduce our reliance on the coal-based grid electricity supply in South Africa, promote opportunities to collaborate with our communities in realising mutually beneficial opportunities, and support the development of new markets for PGMs.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?
No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.2b

(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?

Implats currently makes use of market-related scenarios analysis to inform their long-term life-of-mine planning. Implats acknowledges that climate change influences the markets, which drives the increase or decrease in demand for PGMs. In order to ensure the optionality as part of our Mineral Reserves assessments, we believe that identifying scenarios for future sustainability is an integral aspect that must be included as a focus area in our strategy. This is confirmed in our Mineral Resource and Mineral Reserve Statement. Commodity prices and input costs were previously the only aspects considered as the main drivers of Implats' business strategy. However, Implats is addressing the need to improve their understanding of the potential impact of global climate change scenarios on our long-term strategic plans.

In order to consider both transitional as well as physical risks on Implats business strategy and to better understand the impacts of climate change on the future of their mining operations, Implats intends to quantify climate-related impact on their operations, through implementing a climate-related scenario analysis within the next two years. In FY19, Implats began investigating the possibility of conducting climate-related scenario analyses based on the Task-force on Climate-related Financial Disclosure (TCFD) recommendations. The TCFD scenario analysis envisaged for Implats includes a gap analysis based on the current reporting practices implemented by the company in comparison to the recommendations made by the TCFD. Leading up to the scenario analysis, Implats will therefore be conducting a TCFD gap analysis in 2021 in order to assess to what extend their reporting practices to align them with the requirements of the TCFD. This will also assist us with establishing which scenarios would be most appropriate to quantify the impacts of climate change on their business.

As the platinum market is constantly changing due to climate-related transitional aspects such as technological advances and regulatory measures, we will seek to update our scenario every two years in order to reflect the latest scenario developments related to climate change. This will be a key aspect to consider given the projected changes in the automotive industry and the phase out of internal combustion engines. The outcomes of the analysis will give Implats an idea of the potential financial impacts of climate change on Implats' income statement and balance sheet and enable them implement response mechanisms in order to ensure that our business strategy takes advantage of opportunities, but is also able to absorb risks associated with climate change.

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	As a producer of platinum group metals (PGM), the global transition towards electro-mobility is noted as a risk contributing to the decline in metal prices for a protracted period of time. Platinum, whose demand is primarily derived (between 36 and 43% of global demand) from its use in auto catalysts, is at risk in terms of declining market value. Implats is aware that this decline in demand for platinum will impact profitability, and thus includes these considerations in their risk and opportunities evaluation processes, for the business strategy. The risks associated with the low-carbon shift toward EVs has been integrated into Implats' business strategy through climate-related risk assessments. At Implats, the key operational risks, and risks which impact the sustainability of their business, are ranked and reviewed annually to determine the most pressing risks. As a case study of how the risk has been incorporated into our strategy, we continue to assess and respond to product risks and opportunities, as demand for platinum from the re-emergence of fuel cell and hydrogen sectors continue to rise in the global transition to a low-carbon future through the drive for lower vehicle GHG emissions standards and cost-competitive renewable energy technologies in the form of green hydrogen. In addressing the global decarbonisation challenge, there are increasing opportunities to use platinum-catalysed fuel cells that provide zero-emitting, carbon-free energy, in electricity and mobile applications. The commercialisation of this technology forms part of our business strategy and continues to be reviewed for economic viability. In 2020 and beyond, the Group aims to review its fuel cell road map and will seek to engage strategic partners to develop and optimise our participation in the value chain and contribute to the low carbon transition. Time horizons associated with the assessment of the risks and opportunities posed by Implats' product and market-related considerations are revisited/ reassessed annually. Annual reviews of business governance processes, and all operations are conducted, taking cognisance of climate change and other related risks, including market value.
Supply chain and/or value chain	Yes	Implats has identified that its main risks and opportunities regarding its supply chain will stem from (i) the anticipated increase in energy, fuel and electricity costs, and (ii) decreased water availability. For Implats' South African operations, the cost of electricity has increased due to tighter environmental regulations for electricity generation and is expected to increase more with the recent introduction of the Carbon Tax Act. The carbon tax on electricity generation will be passed-through to all electricity users from 2023 onwards (following the initial phase of carbon tax, namely from June 2019 to December 2022). Implats has integrated the potential impact of increased electricity prices into their business strategy through a cost-benefit analysis of all projects. This is a case study of Implats' strategic decision made to combat climate-related impacts. In addition, several monitoring and mitigation measures (like energy efficiency programmes) have been carried out throughout Implats' operations. These have been implemented to minimise the impacts of carbon tax costs from electricity use. In the long term, we will also be minimising our exposure to carbon tax pass though costs as our decarbonisation strategy will reduce our dependency on the national utility, Eskom, as focus on developing opportunities to replace diesel with low-carbon fuels and the potential application of solar photovoltaic (PV) technology to generate electricity. Regarding time horizons, these strategic decisions are revisited on an annual basis and evaluated in the short term. However, the long-term impact of carbon pricing is also a key aspect considered by Implats. Annually, Implats establishes their most pressing risks and opportunities anticipated to impact their operation and sustainability in the short, medium and long-term. These risks and opportunities are informed by quarterly meetings and assessments conducted.
Investment in R&D	Yes	Implats invests in research and development (R&D) to identify sustainable, forward-thinking business opportunities on which to develop their business model. This research is steered greatly by the impacts of climate change. In light of identified climate-related risks as well as the anticipated shift in customer demands, Implats has invested in the Hydrogen South Africa (HydroSA) programme, which was initiated by the South African government, in the interest of platinum beneficiation. This is an example/ case study of how Implats' strategic decisions are influenced by the various climate-related risks and opportunities they have identified. With input and assistance from HydroSA, Implats has begun researching the development of fuel cell technologies as a possible key contributor to alternative markets for PGM production. Implats has thus invested in fuel cell technology research, which will promote the fuel cells and assist in developing technologies which will improve efficiency and reduce waste heat produced underground, by making use of Implats' key products. Since 2015, we have spent R25 million in developing the fuel cell initiative in collaboration with academic institutions and commercial partners. The group is also working with government and key partners to develop a special economic zone (SEZ) focussed on the commercialisation of hydrogen technologies. The SEZ comprises 16 hectares of land donated by Implats, adjacent to Impala Springs. The project in partnership with various government departments is a longer-term strategic investment to facilitate platinum beneficiation. Implats intends to manage the risks posed by the declining catalyst market by providing alternative uses for platinum group metals. Implats is developing fuel cell technologies to develop an alternative market. The magnitude of this impact is high and is anticipated to have a long-term strategic impact on Implats' business strategy. The time horizons for the assessment of the risks and opportunities as identified by Implats, regarding their R&D investments and the changing market, are revisited annually. The current R&D research aims to contribute to the fuel cell market in the medium to long term.
Operations	Yes	In light of the anticipated impacts of climate change, Implats considers the various risks that will impact the productivity of their operations, based on extreme weather occurrences. One specific physical risk is the impact of acute and chronic climate change impacts, such as drought and extreme weather events on our water availability and infrastructure. An example of such a risk is the impact of low rainfall on the water availability at our operations in the North West region and in Zimbabwe. Water is our most significant environmental concern. The principal risks we face are increased water stress leading to potential operational disruptions, uncontrolled dirty water discharges into the environment, increasing costs associated with water supply and management, local community discontent and reputational risks. However, the as part of our business strategy, and to manage the climate change risks associated with water, Implats has implemented a water strategy. At executive management level, the Group Executive: Safety, Health and Environment is responsible for our water strategy and water management initiatives. At board level, the Health, Safety, Environment and Risk board sub-committee is responsible for monitoring our water strategy and risk. Regarding timelines, Implats continuously monitors water consumption and water management practices as required by the water strategy. As water is a key input to our operations, we consider the impact of water shortages over the short, medium and long term.

C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Indirect costs Capital allocation	The implementation of the Carbon Tax Act in 2019 poses significant financial risks to Implats. Not only is the group liable to pay carbon tax directly, but they will also be impacted by the tax indirectly as a result of the pass through of the tax from key suppliers. The second phase of the tax scheme (2023 to 2030) may present real exposure risk for Implats as the state-owned electricity supplier, Eskom generates electricity from coal and will pass the carbon tax to electricity consumers. Electricity use accounts for the overwhelming majority of Implat's exposure to carbon tax costs from 2023 onward. As such, as a strategic response, Implats will reduce its dependency on Eskom by implementing its decarbonisation plan which is currently under development. Implats will focus on the potential application of solar photovoltaic (PV) technology to generate electricity, especially in the light of the recent announcements that would exempt Implats from applying for a electricity generation license. This will reduce our indirect carbon tax liability, whilst also driving down our emissions. The time horizon associated with the implementation of our decarbonisation plan is linked to the medium-to-long term Considering the transition to a low-carbon economy and society, Implats believes that the use of platinum in green hydrogen technologies will assist in such a transition and we are committed to investing in and allocating capital towards the development of the hydrogen and fuel cell markets. A major step forward was taken this year in implementing Implats' fuel cell development roadmap whereby Implats donated 16 hectares of land. A special economic zone (SEZ) for fuel cell development is planned for the land donated under the auspices of the Gauteng Industrial Development Zone initiative, situated on Implats land adjacent to our refinery in Springs. Implats intends to use the SEZ platform to build on their current partnership initiatives, develop skills capacity and leverage infrastructure for fuel cell manufacturing and deployment. We expect the donation of the land will result in technological advancements in the fuel cell industry and benefit Implats' income statement and balance sheet in the medium-to-long term. Numerous climate-related factors could result in work stoppages, including lack of freshwater supply, heat fatigue, insufficient cooling, the withdrawal of a social license to operate, as well as an act of non-compliance or other regulatory limitations. Work stoppages can last for some time, depending on the extent of climate-related impacts experienced. Implats' operations are at risk of losing between R8 million and R60 million revenue per day, which is considered a substantive impact on Implats' revenue due to direct impacts. The direct market impact of climate change on PGM demand has not yet been quantified. The increased uptake of fuels cell, particularly in the industrial sector, has contributed to an increased demand for PGMs in this sector increasing revenue. The financial planning regarding revenue influences are considered in Implats' long-term strategic plans.

C3.4a

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

One of Implats' foremost values is to ensure care for the health and safety of all stakeholders, and care for the environment in which they operate. Implats has identified climate change as a material risk for the company and the health and safety of their employees and our surrounding communities. Their operations are exposed to both physical risks (related to temperature and precipitation changes) and transitional risks from changes to climate related regulations and market changes. These risks could have significant financial impacts on the business, however Implats has actively taken steps and allocated capital to reduce Implats' financial exposure to climate change risks.

Implats' main climate- related risk is the potential impact of climate change on security of water supply for our organisation and host communities. One of our strategic intent includes driving operational excellence and continuously engaging the stakeholders in that regard. All Implats operations are committed to reusing and recycling as much water as possible as well as using grey water sources. In this regard, our water strategy and water management practices are an integral part of our business strategy in order increase the resilience of their operations against climate change, and therefore reduce Implats' exposure to financial impacts related to climate change disasters. Implats spends considerable amounts of capital to increase the resilience of our business to the impacts of climate change and to ensure that its water resources are managed in a manner which can withstand the physical impacts of climate change.

It must be noted that security of energy supply and rising energy prices are also material risks for our operations. In order to avoid operational losses due to power outages, Implats is investing in a 110MW solar plant at its Zimplats operations. The initiative would supply the 80MW of power required at Zimplats Mine, reducing the demand on the national power grid and could potentially channel excess power generated to surrounding communities. Furthermore, a study to supply solar energy to their Marula Mine is in its early stages. Although these initiatives would be large capital investments, the plants will reduce electricity costs for the group, whilst also driving down our emissions.

C4. Targets and performance

C4.1

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

C4.1a

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

Target reference number
Abs 1

Year target was set
2009

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2008

Covered emissions in base year (metric tons CO2e)
2568000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2020

Targeted reduction from base year (%)
5

Covered emissions in target year (metric tons CO2e) [auto-calculated]
2439600

Covered emissions in reporting year (metric tons CO2e)
3225575

% of target achieved [auto-calculated]
-512.130062305296

Target status in reporting year
Expired

Is this a science-based target?
No, but we are reporting another target that is science-based

Target ambition
<Not Applicable>

Please explain (including target coverage)
In FY2020, the total Scope 2 emissions posted by Implats' operations were 3 225 ktCO2e which is a decrease from FY2019 (3 418 ktCO2e). This was a result of small decrease in production at Impala Rustenbut but also an acquisition of Impala Canada which has a lower carbon intensity of production

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Target reference number
Abs 2

Year target was set
2016

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2015

Covered emissions in base year (metric tons CO2e)
2897000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
35

Covered emissions in target year (metric tons CO2e) [auto-calculated]
1883050

Covered emissions in reporting year (metric tons CO2e)
2897000

% of target achieved [auto-calculated]
0

Target status in reporting year
Underway

Is this a science-based target?
No, but we are reporting another target that is science-based

Target ambition
<Not Applicable>

Please explain (including target coverage)
In FY2020, the total Scope 2 emissions posted by Implats' operations were 3 225 ktCO2e which is an increase from FY2019 (3 418 ktCO2e). This target is linked to the South African national utility's uptake of renewable energy which is in turn is linked to South Africa's peak-plateau-decline emissions trajectory commitments 35% reduction by 2030 which is 1951 ktCO2 of Implats' absolute emissions. In this reporting year, Implats' Scope 2 emissions have decreased as a result of small decrease in production at impala Rustenbut but also an acquisition of Impala Canada which has a lower carbon intensity of production.. These emissions are still higher than the base year of this target.

Target reference number
Abs 3

Year target was set

2016

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2015

Covered emissions in base year (metric tons CO2e)
2897000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2040

Targeted reduction from base year (%)
63

Covered emissions in target year (metric tons CO2e) [auto-calculated]
1071890

Covered emissions in reporting year (metric tons CO2e)
3225575

% of target achieved [auto-calculated]
-18.0030244752371

Target status in reporting year
Please select

Is this a science-based target?
Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition
2°C aligned

Please explain (including target coverage)
In FY2020, the total Scope 2 emissions posted by Implats' operations were 3 225 ktCO2e which is an decrease from FY2019 (3 418 ktCO2e). This target is a science based because it is linked to the national utilities uptake of renewable energy which is in turn is linked to South Africa's peak-plateau-decline emissions trajectory commitments 63% reduction by 2040, equivalent to 1111 ktCO2 absolute emissions. In this reporting year, Implats' Scope 2 emissions have decreased as a result of small decrease in production at impala Rustenbut but also an acquisition of Impala Canada which has a lower carbon intensity of production.. These emissions are still higher than the base year of this target.

Target reference number
Abs 4

Year target was set
2018

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1

Base year
2017

Covered emissions in base year (metric tons CO2e)
392000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2020

Targeted reduction from base year (%)
2

Covered emissions in target year (metric tons CO2e) [auto-calculated]
384160

Covered emissions in reporting year (metric tons CO2e)
3225575

% of target achieved [auto-calculated]
-36142.5382653061

Target status in reporting year
Expired

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain (including target coverage)
In FY2020, the total Scope 1 emissions from Implats was calculated to be 419 ktCO2e. This is an increase in Scope 1 emissions since last year (which reported 411 ktCO2e) and this can be attributed to ackwisition of Impala Canada and increase production at Zimplats.

Target reference number
Abs 5

Year target was set
2020

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2015

Covered emissions in base year (metric tons CO2e)
2897000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
5

Covered emissions in target year (metric tons CO2e) [auto-calculated]
2752150

Covered emissions in reporting year (metric tons CO2e)
3225575

% of target achieved [auto-calculated]
-226.838108387988

Target status in reporting year
New

Is this a science-based target?
No, but we are reporting another target that is science-based

Target ambition
<Not Applicable>

Please explain (including target coverage)
This target replaces the short term Scope 2 emissions target which expires this year.

Target reference number
Abs 6

Year target was set
2020

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1

Base year
2017

Covered emissions in base year (metric tons CO2e)
392000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
3

Covered emissions in target year (metric tons CO2e) [auto-calculated]
380240

Covered emissions in reporting year (metric tons CO2e)
419364

% of target achieved [auto-calculated]
-232.687074829932

Target status in reporting year

New

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain (including target coverage)
In FY2020, the total Scope 1 emissions from Implats was calculated to be 419 ktCO2e. This is an increase in Scope 1 emissions since last year (which reported 411 ktCO2e) and this can be attributed to acquisition of Impala Canada and increase production at Zimplats. This target replaces the short term Scope 1 emissions target which expires this year.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
No other climate-related targets

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	12	
To be implemented*	2	120844
Implementation commenced*	1	26.46
Implemented*	8	69112
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes	Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
5300

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
4050000

Investment required (unit currency – as specified in C0.4)
1300000

Payback period
<1 year

Estimated lifetime of the initiative
3-5 years

Comment
Main vent fans optimisation for mining shafts

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (Heat pumps)

Estimated annual CO2e savings (metric tonnes CO2e)
7420

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
5670000

Investment required (unit currency – as specified in C0.4)
10000000

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
Upgrade of heat pumps – industrial change houses

Initiative category & Initiative type

Energy efficiency in production processes	Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
9540

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
7290000

Investment required (unit currency – as specified in C0.4)
13000000

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
Upgrade of refrigeration plants for HVAC

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
27560

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
21060000

Investment required (unit currency – as specified in C0.4)
10000000

Payback period
<1 year

Estimated lifetime of the initiative
3-5 years

Comment
Conversion of underground lighting to LEDs

Initiative category & Initiative type

Energy efficiency in production processes	Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)
12720

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
9720000

Investment required (unit currency – as specified in C0.4)
12000000

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
Compressors upgrade for mining operations

Initiative category & Initiative type

Energy efficiency in production processes	Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
2120

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1620000

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

Payback period
<1 year

Estimated lifetime of the initiative
16-20 years

Comment
Installation of high efficiency motors in mining operations

Initiative category & Initiative type

Energy efficiency in production processes	Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
212

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
162000

Investment required (unit currency – as specified in C0.4)
2000000

Payback period
11-15 years

Estimated lifetime of the initiative
21-30 years

Comment
Mill motor replacement for the milling of PGM containing ore

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
4240

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
3240000

Investment required (unit currency – as specified in C0.4)
20000000

Payback period
4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
Addressing network losses

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Implats' operations are consistently compliant with the laws and regulations stipulated for the various countries wherein it operates, as well as with the internationally recognised ISO14001 Environmental Management standard. In South Africa, GHG mandatory reporting regulations and a Carbon Tax are in place. 2019 was the first reporting year in which Implats was liable to pay carbon tax. Similarly, Implats has been required to report their GHG emissions as per the National Greenhouse Gas Emissions Reporting Regulations from April 2019. Through these regulations, Implats is encouraged to invest further in the reduction of their emissions. An example of such is the greater push towards energy efficiency and energy conservation to decrease the impact of carbon taxes being passed through in energy prices. These cost increases are anticipated to impact on Implats' operations in the second stage of carbon tax implementation in South Africa from 2023.
Dedicated budget for energy efficiency	Through their energy management strategy, Implats has focused their investments on key energy efficiency measures. These measures include group-wide initiatives such as underground energy efficient lighting, optimising compressed air systems and power-factor correction equipment. In addition, Implats has invested in fuel cell technology research, as a means by which to increase the capacity of their fuel cell plant at the Springs Refinery. In FY2019, Implats invested R25million in targets fuel cell development in collaboration with the South African government as a means of addressing the global drive towards energy efficiency and the increased uptake of carbon-free energy sources.
Partnering with governments on technology development	Implats has partnered with the South African Department of Science and Technology by funding part of the Hydrogen South Africa Program for the development of hydrogen and fuel cell technologies. The investment made to encourage fuel cell development and the beneficiation of PGMs. In FY2019 Implats invested R25million in fuel cell development in collaboration with the South African government as a means of addressing the global drive towards energy efficiency and the increased uptake of carbon-free energy sources and the beneficiation of platinum resources locally.
Internal incentives/recognition programs	One of the stated aims of Implats' remuneration policy is to promote and ensure compliance with an evolving regulatory environment, with a specific emphasis on the long-term sustainability of the Group. Implats has short term and long-term employee incentives. The short-term incentives include an allocation of employees' key performance indicators, including that related to health, safety and the environment.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
No

C5. Emissions methodology

C5.1

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

Scope 1

Base year start
July 1 2007

Base year end
June 30 2008

Base year emissions (metric tons CO2e)
392000

Comment

Scope 2 (location-based)

Base year start
July 1 2007

Base year end
June 30 2008

Base year emissions (metric tons CO2e)
2568000

Comment

Scope 2 (market-based)

Base year start
July 1 2016

Base year end
June 30 2017

Base year emissions (metric tons CO2e)
2568000

Comment
The Scope 2 market-based value for Implats' operations are quantified as equal to that of their location-based emissions value

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
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)
419364

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.2

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

Row 1

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

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

Comment
Implats operates in countries where regulated central electricity utilities operate and control the market. Since Implats' gets all their purchased electricity from the national electricity grid, the location-based and market-based approach for Implats' Scope 2 emission are the same.

C6.3

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

Reporting year

Scope 2, location-based
3225575

Scope 2, market-based (if applicable)
3225575

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 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

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

Source
Impala head office emissions

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

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

Relevance of market-based Scope 2 emissions from this source (if applicable)
Emissions are not relevant

Explain why this source is excluded
The only scope 1 emissions from Impala's head office may be due to backup generator emissions. These are immaterial/insignificant compare to the company wide emissions. Scope 2 emissions from head office are less than 200t and are also insignificant to the overall scope 2 emissions.

C6.5

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

Purchased goods and services

Evaluation status
Relevant, calculated

Metric tonnes CO2e
29580

Emissions calculation methodology
WRI (ISO 14064)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
50

Please explain
This category's emission contribution was calculated using the purchased water by Implats. The emissions associated with water are attributed to the upstream pumping, storage and distribution of the water received from the various suppliers.

Capital goods

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
187

Emissions calculation methodology
WRI (ISO 14064)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
50

Please explain
Capital Goods can include vehicles, machinery or generators purchased by Implats in a specified reporting year. To calculate emissions from a vehicle, one can assume the amount of steel used to produce the vehicle and multiply it by the emission factor for steel. Implats would need to include the number and type of vehicles purchased by the company during the reporting year. Assuming that in this past reporting year (FY2020) Implats purchased 48 vehicles which contribute an average of 3.9 tCO2e per vehicle. This amounts to less than 0.16% contribution and is thus deemed immaterial.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
304008

Emissions calculation methodology
WRI (ISO 14064)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Calculated from well to tank emissions related to fuels consumed by Implats, including Diesel, petrol, LPG, Heavy Fuel Oil, Natural Gas and transmission and distribution losses from electricity.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
8165

Emissions calculation methodology
WRI (ISO 14064)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
50

Please explain
Implats' GHG handbook provides a high-level assessment of scope 3 emissions to determine their materiality on overall emissions. This estimate accounts for the transport of the following purchased goods to site: - Steel, cement, timber, lime, silica - Diesel, Petrol, LPG, Coal, Natural Gas and HFO - Acetylene - Explosives

Waste generated in operations

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
6

Emissions calculation methodology
WRI (ISO 14064)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
50

Please explain
Emissions related to management of waste

Business travel

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
149

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Includes emissions related to flights and hotel accommodation based on DEFRA emission factors for travel and estimated distances of travel.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
21335

Emissions calculation methodology
WRI (ISO 14064)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Implats' GHG handbook provides a high-level assessment of scope 3 emissions to determine their materiality on overall emissions. Employee commuting can be estimated based on the total number of employees and assumptions relating to transport. Implats can assume that 20% of employees travel to work with their own vehicle and 80% travel to work with public transport. Using the Scope 3 emission factors for vehicles and public transport, emissions for Implats' employee commuting are estimated at around 21335 tCO2e per year. This amounts to around 3% of the company's scope 3 emissions. Following the less than 5% material criteria, this category is deemed immaterial to Implats' scope 3 emissions

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes 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
Implats has no material upstream leased assets

Downstream transportation and distribution

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
221

Emissions calculation methodology
WRI (ISO 14064)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
The emissions from the transportation of PGMs and Nickel are estimated by assuming that both products are shipped to Europe on cargo ships. It was further assumed that all products produced were sold and thus shipped. It was estimated that this category's emissions amount to around 200 tCO2e per year. In addition, 21 tCO2e from the transportation and distribution of ash and gypsum have been included. The total scope 3 emissions for this category is less than 1 % of the company's overall scope 3 emissions and is thus deemed immaterial

Processing of sold products

Evaluation status
Not evaluated

Metric tonnes 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

Use of sold products

Evaluation status
Not evaluated

Metric tonnes 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

End of life treatment of sold products

Evaluation status
Not evaluated

Metric tonnes 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

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes 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
Implats has no material downstream leased assets

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes 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
Implats does not participate in any franchises

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes 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
Implats has no other investments other than those reported under scope 1 and 2

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes 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
There are no other upstream emissions relevant to Implats

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes 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
There are no other downstream emissions relevant to Implats

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
0.0000521816

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
3644939

Metric denominator
unit total revenue

Metric denominator: Unit total
69851000000

Scope 2 figure used
Location-based

% change from previous year
33.74

Direction of change
Decreased

Reason for change
The reason why the emissions intensity (of tCO2e/ ZAR earned) has decreased when compared to the previous year, can be attributed to the large increase in revenue earned in FY2020. The revenue earned in FY2020 was 30.4% higher than that earned in FY2019. This is a large jump in year-on-year revenue changes. The FY2019 value used to calculate this change was R 48 billion (AIR 2020). The decrease in emissions intensity for Implats can also be based on the various emissions reduction projects rolled out in FY2019 by Implats. These projects include Implats' energy efficiency and equipment replacement projects, including the air conditioning optimisation). In addition, the decrease in emissions in FY2020 can be attributed to the a decline in production from Impala Rustenburg and the acquisition of Impala Canada which has a lower emissions intensity.

Intensity figure
101.3

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
3644939

Metric denominator
full time equivalent (FTE) employee

Metric denominator: Unit total
36181

Scope 2 figure used
Location-based

% change from previous year
2.81

Direction of change
Decreased

Reason for change
The emissions intensity (of tCO2e / FTE employee) changed because there was a 2.81% increase in the number of full-time employees from FY2019 to FY2020, and the combined Scope 1 and 2 emissions decrease by 5.1%. The intensity metric decrased by 7.49%.

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	399159	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	279	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	1728	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
South Africa	349432
Zimbabwe	50041
Canada	19892

C7.3

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

By facility

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Impala Platinum - Rustenburg	158304	-25.542118	27.177813
Impala Platinum - Refineries	183941	-26.22416	28.439913
Marula Platinum	7187	-24.503593	30.074902
Zimplats	50041	-18.664262	30.352324
Impala Canada	19892	49.170396	-89.592892

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	419364	<Not Applicable>	Implats direct emissions arise from the combustion of a variety of fuels during the course of its operations. These include coal peas; diesel; explosives; heavy fuel oil; petrol; natural gas and LPG etc. Direct emissions also arose from landfilled waste at the Impala Platinum - Rustenburg facility, where Implats owns and manages the onsite solid waste site. Implats largest contributor of direct emissions from operations in FY 2020 resulted from the combustion of coal peas in industrial processes. This accounted for 79% of the group's scope 1 emissions
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
South Africa	2906905	2906905	2742363090	0
Zimbabwe	313430	313430	474894000	0
Canada	5239	5239	121848000	0

C7.6

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

By facility

C7.6b

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

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Impala Platinum - Rustenburg	2567497	2567497
Impala Platinum - Refineries	154492	154492
Marula Platinum	184916	184916
Zimplats	313430	313430
Impala Canada	5239	5239

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	3225575	3225575	Scope 2 emissions for all of Implats' operations arise from the purchasing of electricity from the South African (SA), Zimbabwean national grids and Canadian regional grid. The emissions are associated with the generation of purchased electricity. Implats' electricity, for their SA operations, is produced from a predominantly coal-fired power stations which fed the SA national energy grid. Thus, this electricity has very high emissions production associated to the generation of each MWh (i.e. the SA grid has a very high grid emission factor). In Zimbabwe hydropower makes up about half of the generation capacity, which does not emit any carbon dioxide during operation. Most of Impala Canada's electricity comes from the Ontario grid which is predominantly hydro power. For all Implats' operations, the only current sources of electricty are purchases from the local national/provincial grids, thus the location- and market-based Scope 2 approaches are equal. The Scope 2 emissions in FY2020 account for the majority (88%) of the total emissions in the GHG inventory.
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	121914	Decreased	3.34	A larger share of renewable energy was consumed by the Impala group in 2020 due to the acquisition of Lac des Iles Mine (Impala Canada). Impala Canada used 121 848 MWh of electricity. Impala Canada production replaced production at other facilities. Had this electricity been used at the other operation this would have resulted in a 121 914 tCO2e at an average emission factor of 1.005 tCO2e/MWh (121 848 MWh x 1.005 tCO2e/MWh = 121 914 tCO2e).
Other emissions reduction activities	69112	Decreased	1.9	The following energy efficiency projects have contribute to the emissions reductions: Main vent fans optimisation; Upgrade of heat pumps – industrial change houses; Upgrade of refrigeration plants; Conversion of underground lighting to LEDs; Compressors upgrade; Installation of high efficiency motors; Mill motor replacement; Addressing network losses. These make up 69112 tCO2e of the emissions reductions.
Divestment		<Not Applicable>		
Acquisitions	22892	Increased	0.63	In 2020 Impala acquired Lac des Iles Mine (Impala Canada). This operation, however, has a larger share of renewable energy in its energy mix than the other operations. Production from other operations dropped but the acquisition of Lac des Iles Mine more than compensated for the change in production at other operations.
Mergers		<Not Applicable>	0	
Change in output	20882	Increased	0.57	In FY2019, 19 469 kilotons of ore was milled ex-mine, while in FY2020, 19 575 kilotons were milled. There was an increase of 106 kt for Implats in FY2020. The increased output resulted in a 20882 tCO2e increase in emissions based on the 2019 baseline emission factor (106000 t x 0.197tCO2e/t milled). The emissions value was calculated as the percentage of “change in emissions” of 20882 tCO2e in relation to the total Scope 1+2 values as reported in FY2020 which was 3 644 939 tCO2e (419 364 tCO2e and 3 225 575 tCO2e respectively). Thus, the percentage increase was 0.57%.
Change in methodology		<Not Applicable>	0	
Change in boundary		<Not Applicable>	0	
Change in physical operating conditions		<Not Applicable>		
Unidentified	37464	Decreased	0.43	The total difference (decrease) in the combined scope 1 and 2 emissions between 2019 and 2020 was 184 716 tCO2e. Based on the identified metrics 15508 tCO2e emissions reduction occured due to identified reasons (-184 716 –(– 121914 – 69112 + 22892 + 20882) = -37464) (-ve is a decrease in emissions, +ve in an increase in emissions). This represents 1.03% of the total emissions in 2020 (37464 tCO2e /3 644 939 tCO2e = 1.03%).
Other	0	No change	0	No other changes this year

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?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 10% but less than or equal to 15%

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	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	1316306	1316306
Consumption of purchased or acquired electricity	<Not Applicable>	359000	2980105	3339105
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	359000	4296411	4655411

C-MM8.2a

(C-MM8.2a) Report your organization's energy consumption totals (excluding feedstocks) for metals and mining production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	LHV (lower heating value)	1316306
Consumption of purchased or acquired electricity	<Not Applicable>	3339105
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0
Total energy consumption	<Not Applicable>	4655411

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)
Bituminous Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1072446

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
1072446

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

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

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

Emission factor
2.31

Unit
metric tons CO2e per metric ton

Emissions factor source
South AfricaTechnical Guidelines and IPCC emission factors.

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
9038

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
9038

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

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

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

Emission factor
0.0567

Unit
metric tons CO2e per GJ

Emissions factor source
DEFRA factors 2019, fuels – Natural Gas

Comment

Fuels (excluding feedstocks)
Distillate Oil

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
19808

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
19808

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

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

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

Emission factor
3.18

Unit
metric tons CO2e per m3

Emissions factor source
DEFRA factors 2019, fuels – Used Oil for Combustion

Comment

Fuels (excluding feedstocks)
Diesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
188888

MWh fuel consumed for self-generation of electricity
5122

MWh fuel consumed for self-generation of heat
183766

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

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

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

Emission factor
0.00283

Unit
metric tons CO2e per liter

Emissions factor source
Technical Guidelines and IPCC emission factors – stationary combustion.

Comment

Fuels (excluding feedstocks)
Petrol

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
4230

MWh fuel consumed for self-generation of electricity
23

MWh fuel consumed for self-generation of heat
4207

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

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

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

Emission factor
0.00243

Unit
metric tons CO2e per liter

Emissions factor source
Technical Guidelines and IPCC emission factors – stationary combustion

Comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
27609

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
27609

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

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

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

Emission factor
2.98

Unit
metric tons CO2 per metric ton

Emissions factor source
Technical Guidelines and IPCC emission factors.

Comment

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1850	1850	0	0
Heat	1128901	1128901	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C-MM8.2d

(C-MM8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed for metals and mining production activities.

	Total gross generation (MWh) inside metals and mining sector boundary	Generation that is consumed (MWh) inside metals and mining sector boundary
Electricity	1850	1850
Heat	1128901	1128901
Steam	0	0
Cooling	0	0

C8.2e

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

Sourcing method
Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

Low-carbon technology type
Hydropower

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

MWh consumed accounted for at a zero emission factor
237447

Comment

Sourcing method
Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

Low-carbon technology type
Hydropower

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

MWh consumed accounted for at a zero emission factor
121848

Comment

C9. Additional metrics

C9.1

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

Description
Energy usage

Metric value
0.17

Metric numerator
MWh

Metric denominator (intensity metric only)
Tonnes milled

% change from previous year
2.7

Direction of change
Decreased

Please explain
In FY2020, Implats has had a decrease in the amount of electricity used per tonne of material milled. This can be attributed to multiple reasons including (i) loadshedding occurrences in 2020 causing increased disruptions/ unplanned stoppages in operations compared to FY2019, and (ii) the acquisition of Impala Canada which consumes elelctricity with a very low emissions factor. In FY2020, the sum of all electricity used across all Implats operations was 3 339 000 MWh and a total of 19,575 kilotons were milled ex mine, resulting an intensity of 0.171 MWh/tonnes milled. In 2019, 3 412 000 MWh of electricity was used while 19,469 kilotons milled – with an intensity of 0.175 MWh/tonnes milled. This resulted in an intensity decrase of 2.7% from FY2019 to FY2020.

C-MM9.3a

(C-MM9.3a) Provide details on the commodities relevant to the mining production activities of your organization.

Output product
Platinum group metals

Capacity, metric tons
107.17

Production, metric tons
94.84

Production, copper-equivalent units (metric tons)
541152

Scope 1 emissions
241032

Scope 2 emissions
3071083

Scope 2 emissions approach
Location-based

Pricing methodology for copper-equivalent figure
The outputs are net present value, the internal rate of return, annual free cash flow, project payback period and funding requirements. Metal price and exchange rate forecasts are regularly updated by the marketing department of Implats. As at June 2020, a real long-term forecast for revenue per platinum ounce sold of R16 737 (US$1 211) was used. Specific real long-term forecasts in today's money include: – Platinum = 827 (US$/oz) – Palladium = 1 264 (US$/oz) – Rhodium = 4 406 (US$/oz) – Ruthenium = 172 (US$/oz) – Iridium = 1 132 (US$/oz) – Gold = 1 359 (US$/oz) – Nickel = 15 773 (US$/t) – Copper = 6 133 (US$/t) – Exchange rate = R 13.82/USD

Comment
For FY 2020, Implats' mining-related emissions were calculated by using the Scope 1 (241 032 tCO2e) and Scope 2 (3 071 083 tCO2e) emissions for mining operaions only. The production and capacity values here are based on the tonnes of ore milled in FY2020. The PGM equivalent of this value was calculated based on the average 6E grade (MRR 2020 page 33) of Impala, Marula, Zimplats and Impala Canada. Capacity of tonnes milled was estimated from projected life of mine Pt production rate to give a total capacity of 19.58 million tonnes milled. Similarly, the tonnes milled were converted to PGM equivalent through the 6E ore grade.

C-MM9.3b

(C-MM9.3b) Provide details on the commodities relevant to the metals production activities of your organization.

Output product
Platinum group metals

Capacity (metric tons)
226.32

Production (metric tons)
80.35

Annual production in copper-equivalent units (thousand tons)
382170

Scope 1 emissions (metric tons CO2e)
178332

Scope 2 emissions (metric tons CO2e)
154492

Scope 2 emissions approach
Location-based

Pricing methodology for-copper equivalent figure
The outputs are net present value, the internal rate of return, annual free cash flow, project payback period and funding requirements. Metal price and exchange rate forecasts are regularly updated by the marketing department of Implats. As at June 2020, a real long-term forecast for revenue per platinum ounce sold of R16 737 (US$1 211) was used. Specific real long-term forecasts in today's money include: – Platinum = 827 (US$/oz) – Palladium = 1 264 (US$/oz) – Rhodium = 4 406 (US$/oz) – Ruthenium = 172 (US$/oz) – Iridium = 1 132 (US$/oz) – Gold = 1 359 (US$/oz) – Nickel = 15 773 (US$/t) – Copper = 6 133 (US$/t) – Exchange rate = R 13.82/USD

Comment
The production value was calculated based on the volumes of PGMs produced at Implats' Springs Refinery. This was then calculated as tonnes of Cu equivalent based on the commodity prices in the Mineral Resource and Mineral Reserve Statement. All Implats' other operations provide PGM concentrates which are still required to be refined prior to end use, reported in previous question (C-MM9.3a). Capacity of the refinery is based on the environmental approval.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	Implats has over several years worked with government and various academic institutions on developing fuel cell technologies which utilised PGMs as alternative energy sources. Fuel cell technologies provide clean electricity for underground use, to provide ventilation. In addition, the research extended to commercial development of prototype fuel cell driven LHD and bus technologies, which are currently being tested at Implats' Rustenburg mine. These have been used in Forklifts as a prototype since October 2015.

C-MM9.6a

(C-MM9.6a) Provide details of your organization's investments in low-carbon R&D for metals and mining production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Other, please specify (Low carbon energy alternatives using platinum as a key base material)	Small scale commercial deployment	≤20%	4592578	Implats has invested around R25 million in targets fuel cell development in South Africa, in collaboration with government and academic institutions. About R4.6m was contributed to fuel cell development in 2020 through the provision of PGM metals.

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 third-party verification or assurance

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
Reasonable assurance

Attach the statement
implats-esg-2020.pdf

Page/ section reference
Page 100

Relevant standard
ISAE 3410

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
Reasonable assurance

Attach the statement
implats-esg-2020.pdf

Page/ section reference
Page 100

Relevant standard
ISAE 3410

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, we do not verify any other climate-related information reported in our CDP disclosure

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)?
Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.
South Africa carbon tax

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

South Africa carbon tax

Period start date
June 1 2019

Period end date
December 31 2020

% of total Scope 1 emissions covered by tax
100

Total cost of tax paid
6969172

Comment
The design of the carbon tax provides for significant tax-free emissions allowances ranging from 60% to 95% for the first phase, This means that in a worst case scenario, only 40% of Impala's diret emission will be taxed during the first phase of the carbon tax (1 June 2019 to 31 December 2022)

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

The Carbon Tax Act was officially promulgated in South Africa (SA) on 1 June 2019, and thus Implats has been complying with the provisions of the Act tax since this date. Over the past 4 years, Implats was aware of the pending carbon tax introduction and thus Implats noted it as a key incoming risk. The minimum reporting threshold for reporting greenhouse emissions to the Department of Forestry Fisheries and Environment (DFFE) is 10 MW (thermal energy). Companies that produce direct emissions above this threshold are liable to pay carbon tax. In Implats case, Impala Platinum Limited produces direct emissions above 10 MW (thermal energy) whilst Marula Platinum does not which implies that Impala Platinum Limited (Rustenburg and Refineries operations) will be the entitty that will be liable to pay direct carbon tax.

To comply with the SA carbon tax system, Implats had adopted an internal price of on carbon, in anticipation for the carbon tax introduction, which matched the estimated tax rate. This enabled Implats to adequately evaluate the viability of projects and changing technology options. This also assisted Implats to prepare for the additional expenses, associated savings, revenue use, as well as the redistribution of funds, in light of the tax. Implats believes that this was a good example of strategic planning prior to the introduction of carbon tax on their SA operations. Furthermore, a project has been initiated to ascertain if Impala Platinum would qualify for a performance benchmark allowance as per regulations gazetted on the 19th June 2020. The performance benchmark allowance is up to a maximum of 5 %.

For FY20, Implats' has calculated their direct carbon tax liability to be approxomitaly R12 million in anticipation of the payment due on 29 July 2021. In addition, Implats established a strategy to mitigate the impact of the SA carbon tax. This strategy included energy efficiency projects and emission reduction initiatives.

A case study for how the strategy of compliance to carbon tax was applied is Implats' increased investment in eneggy optimisation in order to reduce our carbon tax liability. This includes projects such as the optimised use of underground compressed air systems, installation of power factor correction equipment, and diesel performance management equipment. Furthermore, we have also implemented energy efficiency projects, with the aim of reducing Implats' electricity costs. The SA National Treasury assured customers (including Implats) that pass-through electricity costs based on the carbon tax will not be implemented in the initial phase of carbon tax implementation (i.e. from 1 June 2019 to 31 December 2022). Post-2022, however, the pass-through carbon tax costs from the SA national electricity utility, Eskom, could result in increased electricity costs for Implats. It is anticipated that electricity tariffs will increase by between 5 cents per kWh and 16 cents per kWh, post-2022. In anticipation of this energy cost increase, based on carbon tax pass-throughs, Implats has begun actively investing alternative fuel sources and energy efficiency technologies.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No

C11.3

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

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price
Stress test investments

GHG Scope
Scope 1

Application
During FY20, Implats had placed an internal price on carbon, to adequately prepare for the years carbon tax liability. This internal price on carbon assisted Implats in evaluating the feasibility of projects related to energy efficiency and emissions mitigation. Implats made use of the price stipulated in the South African Carbon Tax Act (which was promulgated in May 2019). Implats was aware of their liability to pay direct carbon tax based on its coal, natural gas, HFO and process emissions. For FY2020, the rate of R 127 per tonne CO2e applies with a 60% tax free threshold, with an additional carbon offsetting allowance for mining. Fuel cell projects at Impala Rustenburg and the Springs refinery are used to reduce Scope 1 emissions and improve local and underground air quality. An internal price on carbon was used to assess the benefit of these technologies.

Actual price(s) used (Currency /metric ton)
127

Variance of price(s) used
Uniform pricing is used by Implats for South Africa based on the recent introduction of the Carbon Tax Act of 2019

Type of internal carbon price
Shadow price

Impact & implication
Through adequate awareness and planning, Implats anticipated their carbon tax liability, prior to the promulgation of the South African Carbon Tax Act. In preparation of the carbon tax, Implats uses their internal carbon price to: 1) remain aware of their pending liability associated with their direct activities and plan for the increase in operating costs, 2) become aware of possible pass-through costs that could be incurred from diesel, petrol and electricity purchases, as well as from other suppliers. From the onset of the carbon tax in 2019, Implats utilised their internal carbon pricing scheme which mirrored that of the Carbon Tax Act. Thus, their internal carbon pricing was used as a means of managing their risks and opportunities associated with the Carbon Tax Act. In light of their carbon pricing scheme, Implats has, over the past 7 years, invested in energy conservation initiatives, including energy efficient underground lighting, compressed air systems, power correction factor equipment and diesel performance management technologies. This investment was made to minimise the carbon tax liability Implats will face with the introduction of the South African Carbon Tax. The fuel cell project at the Impala Refinery in Springs is an example of where a carbon price is used in the calculation of the financial viability of the project. Initiatives which are under investigation and form part of a larger fuel cell strategy include an 8MW (possibly increasing to between 22 and 30MW) fuel cell installation that aims to take the refineries off the grid, switching all diesel forklifts and load haul dumpers to fuel-cell units. These projects will not only reduce GHG emissions but will also improve air quality, reduce noise and lower waste heat underground.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our customers
Yes, other partners in the value chain

C12.1b

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

Type of engagement
Collaboration & innovation

Details of engagement
Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number
100

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

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
In FY2020, Implats placed focus on attracting and retaining PGM customers through innovation and providing good quality products. We strive to ensure a competitive advantage by differentiating our product suite in the market based on product quality, reliability of supply, and a willingness to adapt to changing customer needs This group of customers were selected for three key reasons. These are: (1) Majority of the customers being engaged in these discussions constitute 100% of Implats' customer group in terms of tonnes of products purchased. These customers are engaged with to discuss the sustainable and reliable delivery of products, tender process and requirements, customer feedback and reputational surveys (including climate-related efforts). (2) Climate change impacts and the changing market demands are resulting in changes in industrial practices and market preferences. Engagements with some of Implats' customers assists Implats in understanding the trend forecasts and market vulnerabilities which will affect the PGM markets and in turn, and overall profitability/ feasibility of Implats' operations. The scope of these engagements discuss the future trends these customers pre-empt, and the supply and demand associated with the PGM market. (3) Implats' investment in fuel cell technology research has resulted in a need to engage the possible customers of these technologies. There is an emerging market in the field of fuel cells for uses related to energy storage and catalysis production, particularly in the industrial field. These possible customers are being engaged to understand the needs of fuel cells technology and the possible demand for the technology and the associated market related prices to be considered competitive. All three of the abovementioned reasons form part of why Implats embarks on extensive engagements with their key customer groups.

Impact of engagement, including measures of success
The results of our latest customer satisfaction survey reflect an encouraging positive overall outcome, in line with the high performance results of the 2015 and 2017 surveys, indicating an ongoing strong partnership between Impala and its customers. Implats defines a measure of success for their customer engagements to be realised in one of two situations: (1) The demand for their key commodities remains strong. (2) The technologies developed/ invested in by Implats' research (i.e. fuel cell technology developments) becomes widely accessible and feasible for general industry uptake. These climate-related engagements would have the following impacts on Implats' strategy, namely: (1) A high demand for PGMs would imply that all climate-related engagements on platinum-use in internal combustion engines and the increased interest in palladium and rhodium in the developmental shift towards a low-carbon economy are recognised. Thereafter, opportunities and risks should be realised. Implats utilises these customer trends, based on climate-related changes, to forecast their future business model. (2) Implats' investment in fuel cell technology is closely monitored and our customer engagement has established there is a demand to develop a special economic zone (SEZ) for fuel cell development. IN Repose to the demand for the development of the fuel cell sector, Implats donated SEZ 16 hectares of land adjacent to the refineries in the Springs region for the development of the SEZ.We intend to use the SEZ platform to build on our current partnership initiatives, develop skills capacity and leverage our infrastructure for fuel cell manufacturing and deployment. The project in partnership with various government departments is a longer-term strategic investment to facilitate platinum beneficiation.

C12.1d

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

Other partners with whom Implats' engages on climate-related risks and their climate strategy are employees and employee unions, government, shareholders and investors, local communities, and the media. Implats engages these stakeholders because the group recognises that all stakeholders are important in achieving a uniform approach to climate change resilience and mitigating climate-related risks. Since each of these stakeholders has a material bearing on the success of the business, Implats prioritises these stakeholders.

Methods of engagement:

Implats employees and unions are engaged with through direct and internal communication, workplace forums, forum meetings, as well as through general department meetings. Meetings with officials from local, provincial and national government, compliance audits, Minerals Council South Africa Parliamentary Portfolio committee, Mining Industry Growth, Development and Employment Task Team (MIGDETT) and the Mining Phakisa are channels through which government is engaged. Shareholders and investors are engaged with through road shows, results presentations, investor conferences and one-on-one meetings. Implats communicates and gets involved with local communities through community leadership engagement meetings, community trust meetings and one-on-one meetings. The media is engaged with through social media platforms. Other channels of engagement include the World Platinum Investment Council, Industry Associations such as the Chamber of Mines, the National Business Initiative, the International Platinum Association and the North West Air Pollution Control Forum.

Case study:

We employ financial capital to contribute to the development of platinum demand by supporting the Platinum Guild International (PGI), World Platinum Investment Council (WPIC), Platinum Jewellery Development Association (PJDA) and International Platinum Association (IPA) through marketing spend and the development of intellectual capital needed to grow new markets and formulate a way forward for the platinum industry. Implats held strategic review meetings for both the World Platinum Investment Council (WPIC) and the Platinum Jewellery Development Association (PJDA, holding Company for PGI). The meetings were to identify gaps in the current strategies and to formulate a way forward. Implats is also a signatory to the principles of the United Nations Global Compact (UNGC) and the ESG report

serves as our advanced level UNGC Communication on Progress (CoP), outlining our support for its broader development objectives and our work on implementing the principles.

Furtemore, energy supply, rising energy prices and climate change impacts significantly impact Implats' direct operations, as well as the operations of their value chain partners. Implats thus encourages ongoing engagements with government and government entities to maintain awareness and plan accordingly. The South African National Electricity Utility, Eskom, experiences major uncertainties and operational strains in light of climate change impacts causing increased water stress and increasing ambient temperatures which affects the efficiency of the coal-fired power stations and in turn, affects Eskom's ability to provide stable electricity to Implats' operations.

Energy risks faced by Eskom, conjunction with the recent introduction of the Carbon Tax Act which will impose price hikes on electricity usage, remain material risks for Implats' operations in South Africa. Implats' engagements with government and policy developers through organisations such as Minerals Council South Africa assists Implats in preparing to combat these risks posed. Through Implats' engagements with the Minerals Coincil of South Africa, Implats is able to continually monitor the impacts of carbon tax pass-through costs from Eskom. At this point, the pass-through carbon tax costs anticipated to be charged (from 2023 onward) has been estimated to be between R128 million and R341 million. Implats will continue to support this process during FY2021 through our participation at the Minerals Council of South Africa.

C12.3

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

Direct engagement with policy makers
Trade associations
Funding research organizations

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Adaptation or resilience	Support	Implats, through the Minerals Council South Africa (MCSA), is participating in the ICMM led initiative to revise the current legislation guiding the design and management of tailings storage facilities (TSF), globally. Thus, Implats fully supports in the ICMM initiative, which proposed new guidelines for the design, management and risk identification processed regarding TSF. Increasing TSF resilience through improved policies has led Implats to invest in the construction of a new TSF at their Marula mine, which will align with the proposed legislation and comply with international best practice.	Implats is on board (through the MCSA) with the proposed new, more strict guidelines regarding TSF designs, management and risk monitoring, as proposed by the ICMM. These guidelines aim to direct TSF owners in adequate monitoring and risk management, in light of the rising risk of climate change impacts and the effect thereof on TSF. In recent times, there have been increased occurrences of TSF flooding and infrastructure failure events due to increased extreme weather events (including flash flood occurrences) and inadequate design capacity of TSFs to combat these events. Implats has since conducted rigorous reviews of all the TSFs under their management, Group-wide. Implats is thus keeping engaged with the MCSA and keeping a watch on the developments through the Global Mining Professional Alliance, who have the ultimate aim to provide research to assist the movement towards eliminating mineral waste facilities. In the interim, Implats intends to abide by international best practice in terms of TSF design and management, to ensure they remain law abiding, and risk avert.
Carbon tax	Neutral	Implats engages with the Chemical and Allied Industries Association (CAIA) in South Africa (SA) regarding the Carbon Tax Act and related greenhouse gas reporting regulations. Impala Refineries belongs to the CAIA, who managements the Responsible Care for SA. Implats engages with CAIA to remain abreast all carbon tax and mandatory reporting information which may impact on their operations and sustainability.	Implats adheres to all regulatory requirements as stipulated by the countries within which they operate. Implats' South African operations has been impacted by the introduction of the SA Carbon Tax and the local National Greenhouse Gas Mandatory Reporting Regulations. Thus, Implats maintains awareness of the anticipated impacts of carbon tax uncertainties and the changing regulatory requirements regarding greenhouse gas emissions reporting through interactions with the CAIA and other such industry bodies who advise Implats on policies and incoming legislation that will impact them, as well as advocate for/ against policy changes and requirements by companies, including Implats.

C12.3b

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

C12.3c

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

Trade association
North West Air Pollution Forum (Napcof)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The North West Air Pollution Control Forum (NAPCOF) has developed across industries in the NWP; with embers/participants from all scheduled processes in the province – ferrochrome industry, cement industry, vanadium industry, fertilizer industry and pesticide industry and others. The aim of this forum is to share experience and technologies, always striving towards continuous improvement and cleaner air for everyone. This includes addressing climate change and encouraging climate change adaptation actions to increase the resilience of the communities within the North-West province.

How have you influenced, or are you attempting to influence their position?
During 2020, Implats was part of the executive committee for NAPCOF and participated in the meetings. Implats participates in the forum to ensure the interests of the company and industry are heard by the other North West Air Pollution Control Forum members. As a member of NAPCOF, Implats engages with government on matters related to climate change legislation (such as the implmenting Climate Change Bill) . Through the platform provided by the NAPCOF, Implats is able to engage with government on matters such as carbon budgets and how the methodologies related to the application of the carbon budgeting system should be applied.

Trade association
Minerals Council

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The Minerals Council South Africa (MCSA) recognizes that climate change is caused by anthropogenic factors and that significant action is required at global and local levels to combat the negative impact of climate change. It supports South Africa's commitment to lowering its GHG emissions through the National Climate Change Response White Paper and the National Development Plan. The MCSA provides strategic support and advisory input to its members in the field of climate change. It facilitates interaction among mining companies to examine policy issues and other matters of mutual concern to define desirable industry level inputs and outcomes.

How have you influenced, or are you attempting to influence their position?
Text field [maximum 2,400 characters] Implats is a member of the Minerals Council South Africa (MSCA) and contributes to MCSA industry-related meetings (at CEO and working group level). Participation in the MCSA is used to ensure that the platinum industry is adequately represented, and to maintain legislative- and trade-related relevance in light of policy development and industry awareness.

Trade association
Energy Intensive User Group

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The Energy Intensive User Group (EIUG) is a consumer-led organization that works with government and other stakeholders to ensure South Africa's energy intensive industries (including Implats) are supplied with reliable electricity, at an acceptable quality and at competitive prices.

How have you influenced, or are you attempting to influence their position?
Implats engages with EIUG on numerous climate change related issues, including energy efficiency and renewable energy alternatives.

C12.3d

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

C12.3f

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

Implats has two main strategies in place which ensure that all direct and indirect activities that influence policy and planning within the organisation are consistent with Implats' overall climate change strategy. These two strategies are (i) the carbon management strategy and (ii) the water strategy. Both of these strategies make reference to the climate change strategy followed by Implats and include aspects of climate change mitigation and adaptation. Implats also references a third strategy which is the energy policy (as advocated per the Energy Intensive User Group, in which Implats is a member). In addition, Implats is in the process of developing a climate change policy which has not yet been published.

In order to ensure that our climate change acttions and reponses are aligned across our operations, we have inittated the process to assess our mainstream filings agonist the recommendations of the Task Force on Climate Change related Financial Dsclosres (TCFD). The work will be completed in 2021 and and will enable us to ensure that all of our operations report and act in accordance with the gloabal best practice methods provided by the TCFD.

Implats works within the bounds of their climate-related strategies to actively engage relevant stakeholders, influence policy developments internally and at national level, and ensure that their direct and indirect activities align with their key climate-related goals. Implats engages with policymakers and governments through organisations such as Minerals Council South Africa. Through these engagements with external policy makers, Implats is kept abreast of legislative changes and possible transitional risks that will impact their operations or sustainability. Implats identifies the relevant climate-related risks, as well as the magnitude and likelihood of the risk, and thereafter ranks the key issues to then engage with the policy makers and government entities on the way possible ideas forward.

At Implats, the energy and carbon management, and water strategies are implemented by line managers at each operation. Performance data is collated from each operation to a Group portal. Feedback is provided to the Exco and board to ensure direct and indirect activities are consistent with the overall climate change policy objectives stated in the Climate Change and Water Management strategies. In addition, all of Implats' operations are managed in line with Implats' Environmental Policy and Sustainable Development Reporting Policy statements. These assist Implats in ensuring that all direct and indirect activities that influence policy are consistent with their climate change strategy.

As part of their Environmental Policy, Implats is committed to reducing or controlling the creation, emission or discharge of any type of pollutant or waste and to reducing adverse environmental impacts. In addition, Implats is committed to minimizing the consumption of non-renewable resources, such as fossil fuels.

Through the Sustainable Development Reporting Policy, Implats ensures that their reporting on sustainable development is uniform throughout the Group. Reporting is aligned with (i) The Global Reporting Initiative Framework and Principles; (ii) The United Nations Global Compact Principles; (iii) Industry norms and standards for non-financial information; (iv) All legislative reporting requirements within the countries of operation; and (v) The King IV Code on Corporate Governance.

Implats continues to work with industry bodies and government in seeking appropriate policy responses to energy and climate change that does not compromise the competitiveness of the mining sector. This is done noting both the company's important development contribution, as well as the role of platinum group metals in the transition to a lower carbon economy.

In Zimbabwe, Zimplats is a member of the Business Council for Sustainable Development of Zimbabwe (BCSDZ) and the Association of Energy Engineers. This has allowed for engagements related to energy efficiency, water stewardship, climate change mitigation and adaptation, and solar projects at Zimplats

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

Status
Complete

Attach the document
implats-esg-2020.pdf

Page/Section reference
Page 98-101

Content elements
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment
Implats outlines the highlights, challenges and focus areas related to climate change and energy management in its ESG Report. The ESG Report also sets out Implats' emission figures as well as its strategy to contribute to a low carbon economy through the strategic application and contribution to fuel cell technologies

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	CEO: Implats	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.

Impala Platinum Holdings Limited (Implats) the second largest platinum-mining producer in the world and one of the leading platinum group metals (PGMs) mining and refining companies, globally. Implats is based in Johannesburg, South Africa, with key operations located in the Bushveld Complex and the Great Dyke of Zimbabwe.

In March 2020, the global COVID-19 pandemic impacted Implats' operations due to the South African national lockdown. The disruptions caused by the COVID-19 pandemic impacted Implats' business for the months of lockdown, however Implats' resilience mining practices and market following initiatives led to minimal disruptions and a quick bounce-back period.

In this reporting year, Implats has newly acquired an operation in Ontario, Canada, focussed mainly on palladium mining. Implats' other operational sites are in South Africa and Zimbabwe. The Impala Rustenburg, Marula and Two Rivers (46% share – not managed) mines are based in South Africa, while the Zimplats and Mimosa (50% share – not managed) mines are based in Zimbabwe. Implats produced a total of 2.813 million oz of refined 6E production in this past reporting year, most of which was Platinum (1.35Moz), Palladium (0.89Moz), Ruthenium (0.25Moz) and Rhodium (0.18Moz). Implats also has a refinery, Impala Refining Services (IRS) based in Springs (Gauteng, South Africa), which processes the ore concentrates and mattes produced at Implats' various operations, alongside materials purchased from other companies, to fulfil their excess smelting and refining capacity.

Implats is listed on the London Stock Exchange (LSE), Frankfurt Stock Exchange (2022 US$ convertible bonds), the Johannesburg Stock Exchange Limited (JSE) in South Africa and is also a level 1 American Depositary Receipt programme in the United States of America. Implats establishes stakeholder relationships at each of their individual operations, to most accurately and delicately manage the various economic, social and environmental issues that might arise. Implats' focus on sustainability and wholistic corporate governance, which is governed by the company's corporate governance strategy, in line with the King IV Code Principles and the JSE Listing Requirements.

In this past reporting year, Implats had maintained 50 744 employees across all their operations. Implats' operations are all ISO 14 001:2015 certified, with the exception of the Impala Canada operations. Implats prioritises the health and safety of their employees, protection of their surrounding environment. An embedded culture of safety awareness, healthy living and respect for the natural environment is a means through which Implats encourages good practices at all levels. Implats has rolled-out compliance standards and regular training sessions on health and safety practices, as well as relevant environmental standards at all of their operations.

Implats has participated in the CDP for the past 14 years (since 2007). In this reporting year, Implats produced 3 644 939 tCO2e of greenhouse gas emissions.

In this reporting year, the Scope 2 emissions produced from Implats' electricity consumption makeups approximately 88% of the Scope1 and 2 emissions produced from Implats' operations. The Scope 1 emissions produced by Implats' operations are mainly generated through the use of coal in their operations.

SC0.1

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

	Annual Revenue
Row 1	69900000000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	ZA	0000083648

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
General Motors Company

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
29777

Uncertainty (±%)
0

Major sources of emissions
Fuel usage

Verified
Yes

Allocation method
Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Impala used the ISO 14604 and the GHG protocol to identify GHG emission sources and to prepare a carbon footprint using a financial control boundary. Activity data was determined from the fuel and material purchases and emission factors for the regions in which Impala operates were used. The majority (about 80%) of scope 1 emissions come from coal use. 88% of the total scope 1+scope 2 to come from the use of electricity.

Requesting member
General Motors Company

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
240627

Uncertainty (±%)
0

Major sources of emissions
Electricity

Verified
Yes

Allocation method
Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Impala used the ISO 14604 and the GHG protocol to identify GHG emission sources and to prepare a carbon footprint using a financial control boundary. Activity data was determined from the fuel and material purchases and emission factors for the regions in which Impala operates were used. The majority (about 80%) of scope 1 emissions come from coal use. 88% of the total scope 1+scope 2 to come from the use of electricity.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Implats ESG Report 2020

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
Doing so would require we disclose business sensitive/proprietary information	N/A

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.

The allocation of emissions to customers will be done on a request basis. The emissions will be based on the total ounces of metal that the customers would have purchased from Implats over the total Platinum Group Elements produced by the company over the period

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms