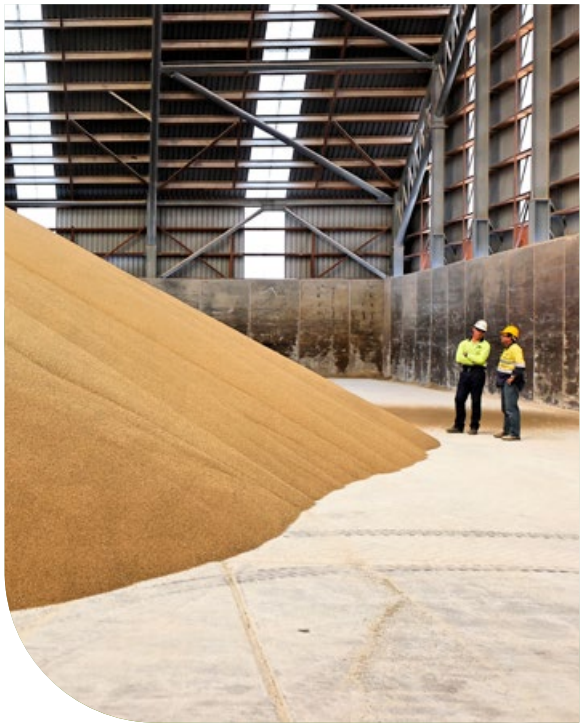
# Sustainability Report **2023**



Incitec Pivot Limited
INNOVATION ON THE GROUND

DYNO Dyno Nobel

Incitec Pivot Fertilisers

## ABOUT THIS REPORT

Incitec Pivot Limited (IPL) has produced a stand-alone Sustainability Report, reporting against the Global Reporting Initiative (GRI) Guidelines, each year since 2010. We also report on topics material to the sustainability of our businesses in our Annual Reports and Climate Change Reports, the latest of which were released concurrently with this Report. This 2023 Sustainability Report provides more information on those environmental, social and governance (ESG) issues deemed to have an impact on, and be material to, IPL's value generation over the long term, and to a broader range of stakeholders. The aim of the Report is to ensure that stakeholders are better able to understand how we manage ESG risks and opportunities in each of our businesses.

This Report was published in November 2023 and covers IPL's financial reporting period from 1 October 2022 to 30 September 2023. The content refers to the performance of IPL and its subsidiaries and the activities over which we had operational control for all or part of the IPL 2023 financial year. This period is referred to throughout the Report as '2023'. The online version of this report is interactive. The Report has been prepared in accordance with the latest GRI Standards. For GRI alignment and more detailed information, including ESG data as requested by the GRI, SASB and Bloomberg GEI frameworks, please see our 2023 GRI Index and Data Supplement.

This Report also includes an initial 'LEAP Assessment' to identify nature-related risks and opportunities for our Incitec Pivot Fertilisers (IPF) business. This assessment was conducted in line with the Taskforce on Nature-related Financial Disclosures (TNFD) framework. Please direct any questions or comment about this report to **sustainability.feedback@incitecpivot.com.au**.

## BENCHMARKING OUR PERFORMANCE

As part of our commitment to transparency, since 2010 IPL has been included in the S&P Global CSA (formerly the Dow Jones Sustainability Index, DJSI), which is widely recognised as the leading reference point in sustainable investment. By benchmarking our performance against peers in the global Chemicals sector, we can gain an insight into areas for improvement, and provide investors and other stakeholders with an objective measure of our environmental, social and governance risk management and business practices.

| Dimension | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Economic | 71 | 72 | 78 | 81 | 78 | 71 |
| Environmental | 64 | 73 | 71 | 69 | 72 | 61 |
| Social | 57 | 60 | 58 | 65 | 69 | 64 |
| **Total for IPL** | **65** | **69** | **69** | **72** | **73** | **65** |
| Chemicals sector average | 44 | 47 | 36 | 30 | 26 | 23 |

In 2023, IPL marked its tenth consecutive year as a constituent of the FTSE4Good Index Series. Companies in the FTSE4Good Index Series have been assessed against stringent environmental, social and governance criteria. IPL has also been a voluntary CDP (formerly Carbon Disclosure Project) Climate Change Reporter since 2009, and a CDP Water Security Reporter since 2014. Other indices and memberships IPL participates in are shown below.


DJSI Member since 2010

Member since 2015

Member since 2014

Member since 2019

CDP Climate Change Reporter since 2009
CDP Water Security Reporter since 2014

## USEFUL LINKS

### 2023 Annual Report

https://incitecpivot.gcs-web.com/static-files/76003a0a-4523-411e-9d4d-dc485cfe4ff0

### 2023 Climate Change Report

https://www.incitecpivot.com.au/~/media/Files/IPL/Sustainability/2023%20IPL%20Sustainability Report/2023 IPL Climate Change Report.pdf

### 2023 IPL Corporate Governance Statement

https://www.incitecpivot.com.au/~/media/Files/IPL/Corporate Governance documents/2023 Corporate Governance Statement.pdf

### IPL Modern Slavery Statements

https://www.incitecpivot.com.au/sustainability/sustainability-in-action/ipl-modern-slavery-statements

### 2023 GRI Index and Data Supplement

https://www.incitecpivot.com.au/~/media/Files/IPL/Sustainability/2023 IPL Sustainability Report/2023 IPL GRI Index and Data Supplement.pdf

**This document is interactive.**

Click any heading in the navigation (top of the left-hand page) to be taken to that page.

# Who we are

## IPL's two businesses, Dyno Nobel and Incitec Pivot Fertilisers (IPF) are recognised leaders in supplying the resources and agricultural sectors.

Dyno Nobel and IPF, with their 60 manufacturing facilities and joint ventures, serve customers across six continents, including Australia, North America, Europe, Asia, South America and Africa.

Our products and services are vital to providing food for the world's growing population, along with the raw materials required to shape our cities and create renewable energy infrastructure critical to a decarbonised future.

The aim for us at IPL is to continue to provide products and services which help unlock the world's natural resources while reducing our environmental footprint, and that of our customers, as we work towards a long-term Net Zero future.

## Our Values

Our values have been developed by our people and endorsed by the IPL Executive Team. In guiding our attitudes, decisions and actions every day, they are brought to life throughout our global workforce. These values are:

## Strategic Drivers

Our business strategy is underpinned by six key drivers which guide our organisational ambition to be a sustainable, safe, efficient and industry-leading Company. Our six strategic drivers are:


### Zero Harm

Zero Harm is good business. It includes Zero Harm to our people, the environment and our communities. Zero Harm is achieved through industry-leading performance in health, safety and environmental management, and building trust and resilience in the communities in which we work.

### Manufacturing Excellence

Manufacturing excellence means delivering personal and business growth through being a world-class manufacturing organisation. It is achieved through Zero Harm, consistency and reliability, reducing GHG emissions and using natural resources wisely.

### Talented and Engaged People

We seek a safe, diverse, inclusive and engaging workplace with a high performance culture. This is driven through the right people with the right skills, in the right roles working collaboratively, and building a workforce that is representative of the communities in which we work.

### Customer Focus

We connect with our customers, building strategic partnerships for innovative solutions that make our customers' businesses more economically, environmentally and socially sustainable.

### Leading Technology Solutions

We recognise that good governance drives sustainable returns. We focus on growth opportunities that are distinctive to our differentiated technology, core markets, core capabilities and advantaged market segments.

### Profitable Growth

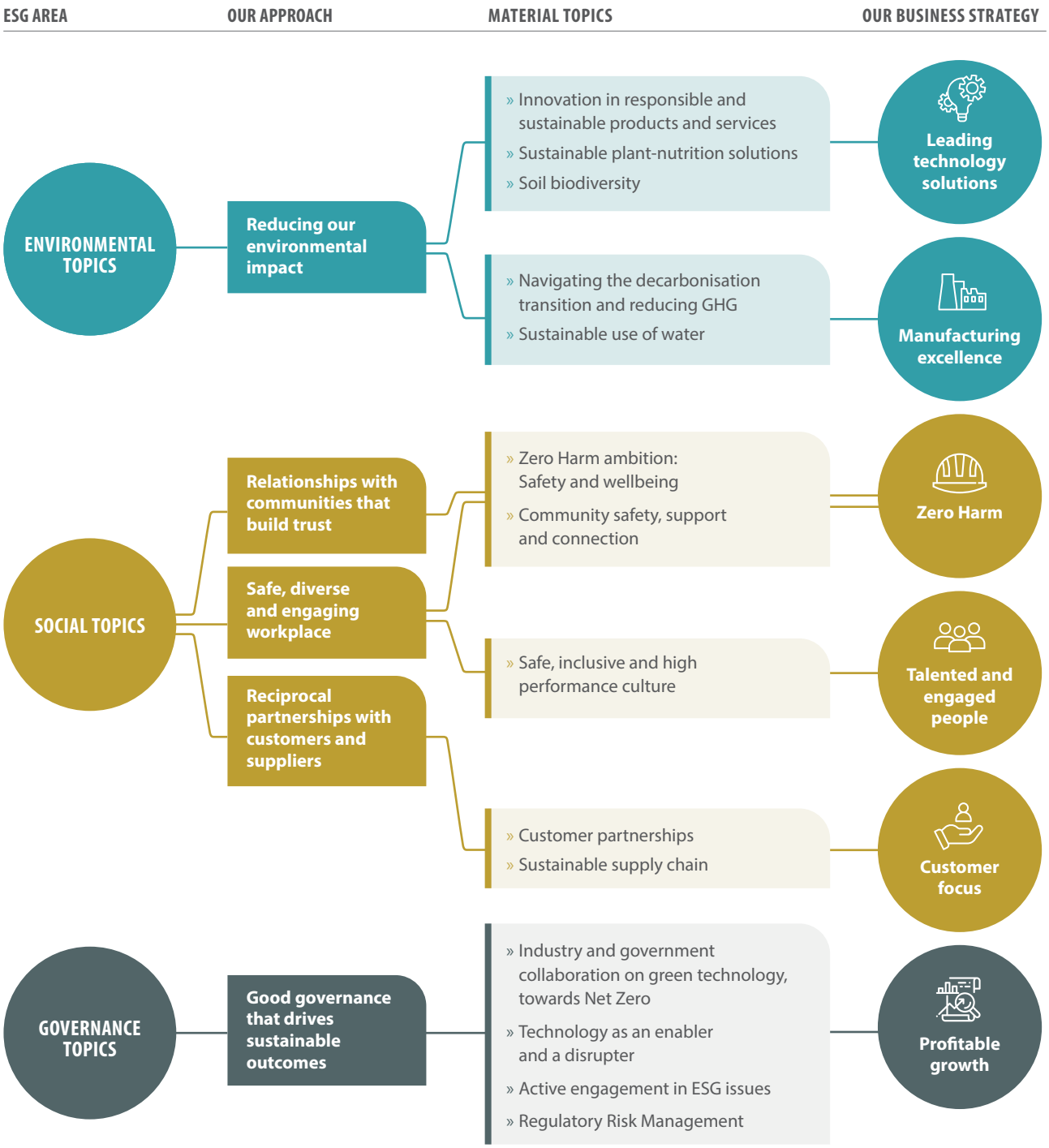
We deliver leading technology solutions that improve safety, reduce environmental impacts and increase productivity and efficiency in our customers' operations.

# Managing our ESG risks and opportunities

## Our sustainability strategy

Our strategy is to deliver sustainable growth and shareholder returns while caring for our people, our communities and our environment.

IPL is committed to operating sustainably, and this commitment is embedded in our business. Our approach to managing our environmental, social and governance priorities, and the material topics they are linked to, is shown below. This approach is integrated into our day-to-day operations via our Strategic Drivers.



# Interim CEO Message

There has never been a more important time to be focused on operating sustainably and at IPL we have never been more determined to meet our environmental, social and governance (ESG) responsibilities.

As we continue to fulfill our purpose of making people's lives better through providing products and services that unlock the potential in the Earth, throughout 2023 we have further embedded sustainable practices across the operations of our two industry-leading businesses, Dyno Nobel and Incitec Pivot Fertilisers (IPF).

Our work has focused on building each of these businesses to thrive for the long term. We know that the best way to ensure long-term, sustainable returns and ongoing success is to operate in a manner that considers all of our stakeholders including our people, the environment, and our communities.

Our journey to achieve this, along with the opportunities ahead, is outlined here in our 2023 Sustainability Report, which continues our long-standing investment in governance and transparency.

Since our 2022 Sustainability Report, we have continued to operate amid an evolving global regulatory environment and ongoing post-COVID-19 economic and geopolitical instability. While challenging, this environment has put into focus the value of our explosives and fertiliser businesses and the vital products and services they provide for our customers. Our fertiliser products are relied on to provide food for a growing global population, whilst our explosives unlock the raw materials required to shape and power our cities and regions, including with renewable energy infrastructure critical to a decarbonised future.

This report details our management of the material issues identified for each of our businesses in relation to the environment, our employees, customers, shareholders, suppliers, and the communities we work in. This year we have conducted an initial 'LEAP' (Locate, Evaluate, Assess, Prepare) assessment for IPF, to identify nature-related risks and opportunities, as recommended by the Taskforce on Nature-related Financial Disclosures (TNFD).

In our Dyno Nobel explosives business, good progress continues to be made to drive improved mining safety, productivity and sustainability for our customers via our new and improved technologies. This includes Dyno Nobel's reduced greenhouse gas (GHG) emissions DIFFERENTIAL ENERGY® solution, an explosives method that tailors the energy delivered to different rock layers within a blasthole and across a blast. The efficiencies generated through the use of DIFFERENTIAL ENERGY reduce overall mining costs, energy use and GHG for customers. We have also developed and built a prototype electric mobile processing unit (MPU) truck, complete with its own charging station, for the delivery of explosives on customer mine sites.

Our fertilisers business, IPF, continues to play a key leadership role in researching and promoting the efficient use of fertilisers. Through our Enhanced Efficiency Fertiliser (EEF) range, soil and plant testing services and precision agriculture technologies, the business continues to guide customers to use only what's needed, to use it where it is needed, and to use it efficiently. These innovative products and services bring important and substantial environmental benefits through reducing nutrient losses to the environment and maximising take-up by crops. Our EEFs are available to growers today to help them maintain yields while reducing the GHG emissions associated with nitrogen fertilisation, in one instance, by up to 76%[1].

We have ceased natural gas based fertiliser manufacturing operations at our Gibson Island facility earlier this year and are continuing to invest in groundwater management at the site. This has resulted in the planned construction of a A$13m wastewater plant that will process groundwater to remove contaminants.

We continue to progress the Gibson Island Green Ammonia Project in decision expected by the end of the calendar year. Should it be approved, as far as we are aware, this will be the first world-scale conversion of an existing ammonia manufacturing facility to produce renewable ammonia.

Across each of our businesses we are progressing a number of other decarbonisation projects which we detail throughout these pages. Backed by a A$100-120m sustainability capital investment to 2030, together these projects provide a potential 42% reduction in operational GHG by 2030 as we work towards our ambition to be Net Zero by 2050, or sooner if practical. More detail on these projects can be found in our **2023 Climate Change Report**, which includes information on our climate change management strategy, governance mechanisms, risks and opportunities, transition approach and plans by business.

Our focus on safety is unrelenting and our Company values of 'Zero Harm for Everyone, Everywhere' and 'Care for the Community and Environment' are embedded into our daily operations. As we detail in this report, the mental health and wellbeing of our people has become an increasing focus – one that is just as important as the physical safety of our employees. Mental health is a key part of our global safety program SafeTEAMS which includes the concept of 'SafeGround'. This equips our people with the skills to create psychological safety so that teams can freely share ideas, mistakes, concerns and improvements. In the year ahead, we will build on this by developing a mental health framework. A key aim is to shift the business to a more proactive, preventative approach to mental health and wellbeing.

The communities we work in are important to our success. We value our community relationships which are led by our people on the ground and are unique to each of our locations. In Australia, a key community responsibility is to contribute to national reconciliation efforts. We are finalising a new three-year RAP for implementation from early 2024. Our RAPs reinforce our commitment to build trust, to listen, and to respect and celebrate Australian First Nations voices, culture and history.

When it comes to our employees, our people strategy puts people at the centre of everything we do. We reviewed our strategy in 2023 and are increasingly focused on building a safety-focused, high performance culture with diverse and inclusive teams.

As part of our people focus and our climate change management strategy, we aim to enable a 'just transition' for our people and the communities that depend on us. For IPL, a 'just transition' means decarbonising our operations and supply chains in a way that meets the goals of the Paris Agreement and is also orderly, timely, fair and equitable. We seek to retain our manufacturing assets and decarbonise them to protect and sustain the jobs we provide and to support the communities which depend on those jobs.

Our stakeholders have hugely contributed to the progress of our various sustainability initiatives over the past 12 months and I want to thank them for their incredible work and support.

The investments we are making across our ESG commitments are ultimately strengthening our businesses and helping us to create long-term value for our stakeholders.

Thank you for your interest in our 2023 Sustainability Report. We welcome your feedback as we continue to get on with the job of playing our role in creating a more sustainable world.

**Paul Victor**
IPL Interim CEO

1. Meng, Y., et al (2021) Geoderma, Nitrification inhibitors reduce nitrogen losses and improve soil health in a subtropical pastureland (388) at **https://www.sciencedirect.com/science/article/abs/pii/S0016706121000215**.

# Our Governance

IPL is committed to doing business ethically and in accordance with the highest standards of corporate governance. Our Corporate Governance Framework and practices have been developed in accordance with the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (4th edition) (ASX Recommendations). To ensure alignment with best practice and ethical standards our Board continually reviews our governance policies and practices.

## Ensuring the sustainability of our businesses

Our commitment to operating sustainably is integrated into our operations and governance structures at all levels of the Company.

The Board is responsible for approving IPL's Code of Conduct and corporate values, and for monitoring IPL's corporate culture. This includes a commitment to protect the lives, rights and dignity of all our employees, and to respect the wellbeing of communities and the environment wherever we operate.

In respect of sustainability, the Board is assisted in its duties by a number of key governance bodies. The Board's **Health, Safety, Environment and Community (HSEC) Committee** assists the Board in its oversight of health, safety and environmental matters as they may affect employees, contractors, the environment and the local communities in which we operate. HSECC is also responsible for monitoring health, safety and environmental risks that may affect the business.

The Board's **Audit and Risk Management Committee** (ARMC) assists the Board in its review of financial reporting principles and policies, risk management and internal audit. It works closely with HSECC to ensure health, safety and environmental risks are managed pursuant to IPL's Risk Management Framework. The ARMC periodically reviews IPL's ESG risks, controls and management strategies, and targets.

It also provides oversight of the effectiveness of our Information Security Framework. The ARMC is chaired by an independent Director, and all of its members are also independent Directors. The Chief Information Officer, who reports to the CFO, works with the Executive Team to implement the Information Security Framework to ensure effective controls and procedures are in place to protect our global information network.

The Board's **Remuneration Committee** provides oversight and advice in relation to the determination of remuneration policy and its application for senior executives, performance evaluation, the adoption of incentive plans, and various governance responsibilities related to remuneration. The Board has linked delivery of certain aspects of IPL's Sustainability Strategy, including the management of ESG risks relating to safety, people strategy, climate change and the development of customer technology solutions for sustainable outcomes, to Executive Key Management Personnel (KMP) remuneration outcomes since 2015.

For 2023, KPIs relating to greenhouse gas GHG reduction objectives were incorporated under a separate Sustainability component (10%) of 'at risk' short-term incentive objectives for all key executives. For more detailed information please refer to pages 11 and 12 of the **2023 IPL Climate Change Report.**

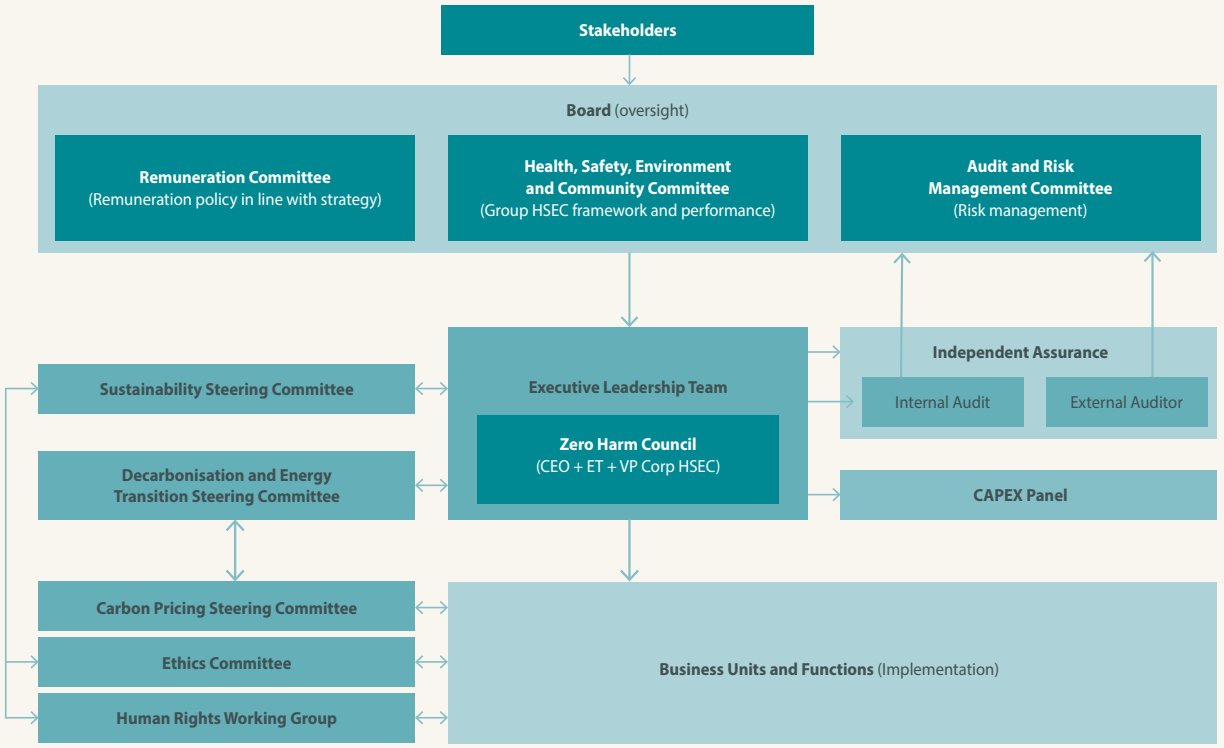
IPL's Executive Team reports to the Board and is accountable for driving the Company's climate change and sustainability strategies. In this it is supported by the **Sustainability Steering Committee**, created in 2021 and chaired by IPL's Interim CEO. This committee provides executive oversight of the business' sustainability strategy, giving direction on the management of ESG issues material to IPL's long-term financial sustainability.

The committee is also responsible for driving change across our business, monitoring our performance on key sustainability metrics, and exploring trends and opportunities for improvement. The Sustainability Steering Committee includes the following roles to embed sustainable practices into our six key strategic drivers and throughout the business:

- The Chief Strategy and Sustainability Officer, responsible for overall integration of sustainability into business strategy.
- The Chief Financial Officer, responsible for guiding Profitable Growth, shareholder returns, capital allocation, community giving budgets (as per the Community Giving Framework), information technology and risk management.
- The Chief Health, Safety and Environment and Operations Excellence Officer, responsible for Zero Harm and Manufacturing Excellence, including reducing the impacts of our operations on our people, the environment and local communities, and meeting regulatory requirements regarding these, via the Health, Safety, Environment and Community Management System (HSECMS – see below).
- The Chief Technology Officer, responsible for developing Leading Technology Solutions to support sustainable products and services.
- The Chief People Officer, responsible for IPL's Talented and Engaged People strategic driver, thereby building on our safe, inclusive and high performance culture.
- Business Unit Presidents, responsible for building strategic partnerships with customers for innovative, sustainable Customer Focused solutions and sustainable supply chains.
- Corporate Sustainability Manager, responsible for convening the Sustainability Steering Committee, and who is also a member of the Decarbonisation and Energy Transition Committee and the Carbon Pricing Steering Committee, supporting alignment across the three groups.

Also supporting the Executive Team is IPL's **Decarbonisation and Energy Transition Committee**, also chaired by the CEO and comprising members of our Executive Team as detailed in our **2023 Climate Change Report**. This Committee is primarily responsible for developing our Net Zero Transition Pathway and strategically managing business risks and opportunities relating to climate change, which are set out in **IPL's Climate Change Reports**.

### Our Governance of Sustainability




IPL adopted a Climate Change Policy in 2019 that integrates its approach to managing the risks, opportunities and impacts associated with climate change into the business' six strategic drivers. The Board has oversight of climate change strategy, performance and governance responsibilities. For more information on our management of climate change risks and opportunities please visit our **2023 Climate Change Report**.

The **Zero Harm Council** is responsible for overseeing the execution of our Zero Harm strategy, which extends beyond our operations to the environment and the communities in which we operate. The Zero Harm Council reviews health, safety and environmental risks across the business, and endorses IPL's HSEC Management System and HSEC Standards. The Council is chaired by the Interim CEO and includes all members of IPL's Executive Team, and the Vice President Corporate Health, Safety and Environment.

In 2022 a **Human Rights Working Group** was established to provide oversight, advice and direction on human rights, including modern slavery. The Human Rights Working Group is a senior level cross-functional body sponsored by the Chief Strategy and Sustainability Officer. This Working Group is working towards the development of a framework that will identify and manage human rights risks in IPL's operations and supply chains, in compliance with legislative and regulatory requirements. A copy of IPL's Modern Slavery Policy and Human Rights Policy can be found on the Corporate Governance section of **IPL's website**.

Our **Ethics Committee**, comprising executives and senior management from across the business, ensures:

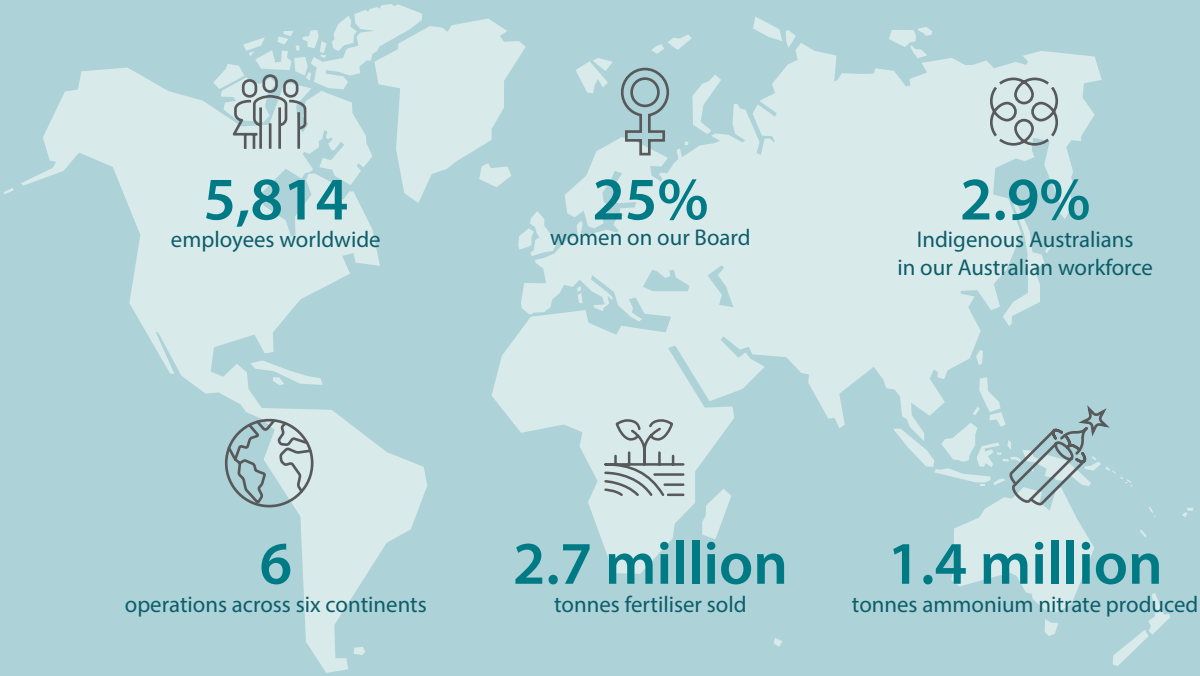
- ethical policies and practices are implemented as a standardised practice
- changes to policies or standards related to ethical behaviour are discussed and implemented
- appropriate procedures are in place to monitor and report on compliance with these standards
- training needs and materials with respect to ethical standards and behaviour are reviewed.

## Key governance documents

To ensure we operate to the highest standards of ethical behaviour and integrity, with full regard for the safety and health of employees, customers, the wider community and the environment, we have clear policies that outline our commitment and expectations. These include:

- Our **Risk Management Framework** and **IPL Group Risk Policy** (AS/NZS ISO 31000:2018), which sets and controls our risk appetite and approach, and monitors our effectiveness in building a strong organisational risk culture. This document suite is available online to all employees and is supported by comprehensive online training.
- Our **Code of Conduct**, which contains principles and standards of conduct based on the Company's values and articulates our commitment to uphold ethical business practices and meet applicable legal requirements.
- Our **Health, Safety, Environment and Community Management System** articulates accountabilities, processes, controls and procedures to deliver on our commitment to 'Zero Harm for Everyone, Everywhere' and 'Caring for the Community and our Environment'.

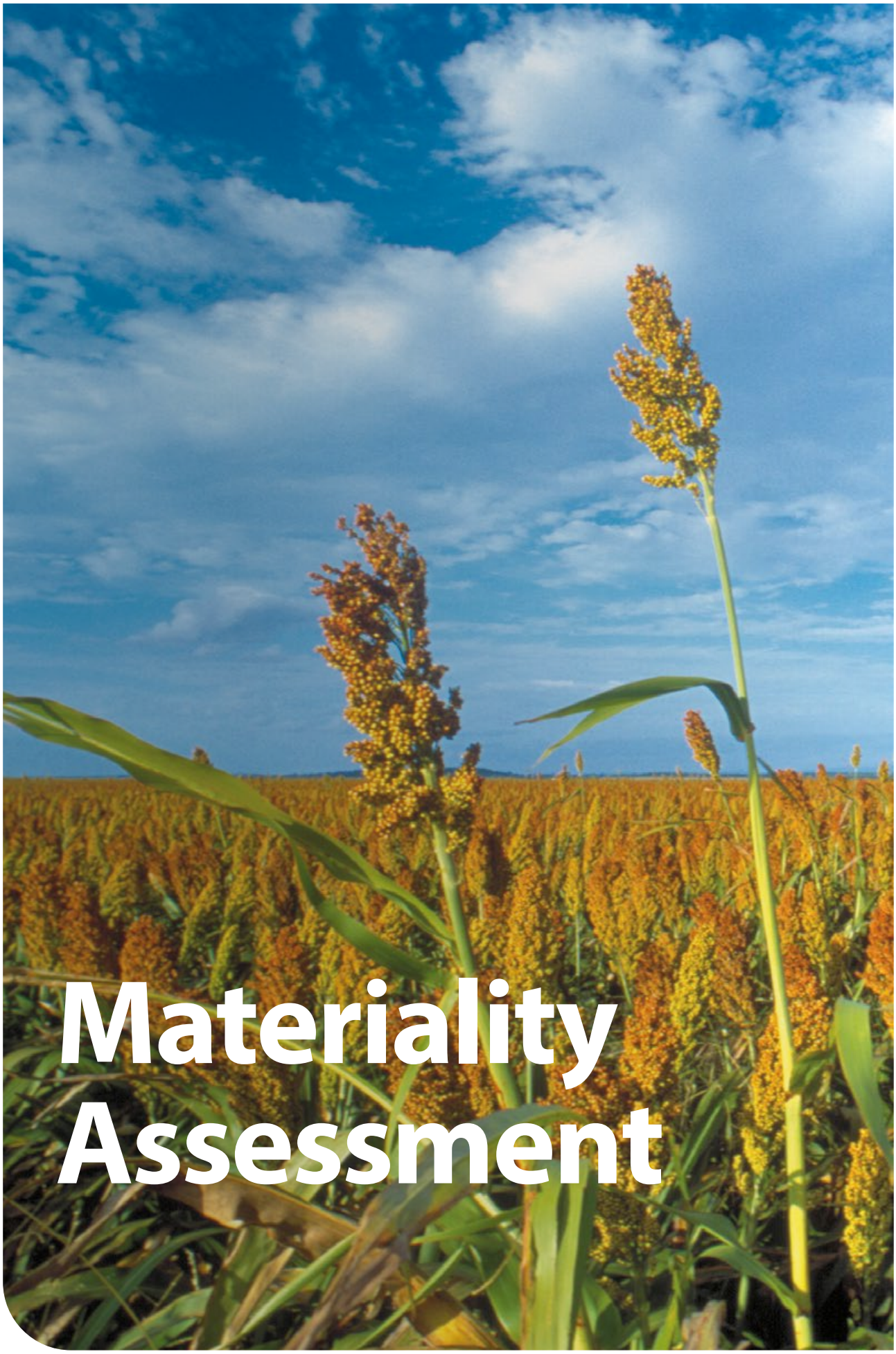
**IPL key operational figures**




- Our **Refusal to Work Policy** articulates IPL's support for employees to cease work where they have concerns that actions about to be taken may pose potential risks to workers, communities, sites of cultural significance for Aboriginal and Torres Strait Islander Peoples or the environment. Employees may refuse to work until the matter is reported internally and appropriate assessments have been completed.
- Our **Sanctions Policy** complies with international sanctions laws and we have rigorous procedures in place to ensure we do not conduct business with companies if we are not confident of the product's country of origin. We regularly conduct face to face training on sanctions and anti-bribery and corruption, with 40 people undertaking face to face or online training this year. Other policies that articulate IPL's commitment to sustainability include:
- Our **Anti-Discrimination and Harassment Policy**, which outlines IPL's commitment to an environment free of discrimination and harassment, where every employee is treated fairly and with respect.
- Our **Climate Change Policy**, which articulates IPL's position on the existence of climate change, and identifies our role in meeting the challenge of climate change.
- Our **Diversity Policy**, which outlines our vision to be an inclusive and accessible organisation, and to develop a culture that embraces diversity.
- Our **Human Rights Policy**, which sets out our commitment to respect and support the dignity, wellbeing and human rights of employees and members of the communities in which IPL operates.
- Our **Modern Slavery Policy** which sets out IPL's support for the eradication of modern slavery and commitment to take steps to identify, assess and address modern slavery risks in its operations. These steps are outlined in our **Modern Slavery Statements**.
- Our **Supplier Code of Conduct**, which commits IPL to ensuring its supplier partnerships reflect its values and legal and regulatory commitments, and its desire to engage suppliers who share the same values.
- Our **Sustainable Communities Policy**, which outlines our commitment to partner with communities, including Indigenous communities, through respectful engagement and contribution to their social and economic development.
- Our **Tax Transparency Reports** which outline our Board-approved strategy in relation to tax and reflect IPL's ongoing commitment to tax transparency.
- Our **Whistleblower Protection Policy**, which documents our Whistleblower system, including a confidential service administered by a third party and available for use by all employees as well as external third parties. The IPL Global Whistleblower Protection Policy is available on our website as is the IPL Australian Whistleblower Policy.

Find out more about these key sustainability-related policies at our **'Sustainability in Action'** page on our website.

The material governance topics identified for our Dyno Nobel and IPF businesses are discussed under 'Governance' in the Dyno Nobel and IPF sections of this report.



# Materiality Assessment

**In 2021, IPL conducted its most recent full materiality assessment to identify the topics most material for our stakeholders and our businesses. The assessment, which was conducted by an expert third party and followed Global Reporting Initiative (GRI) guidelines, began with an extensive analysis of global megatrends – large, transformative global forces that shape the future by having a far-reaching impact on businesses, economies, industries, societies and individuals.**

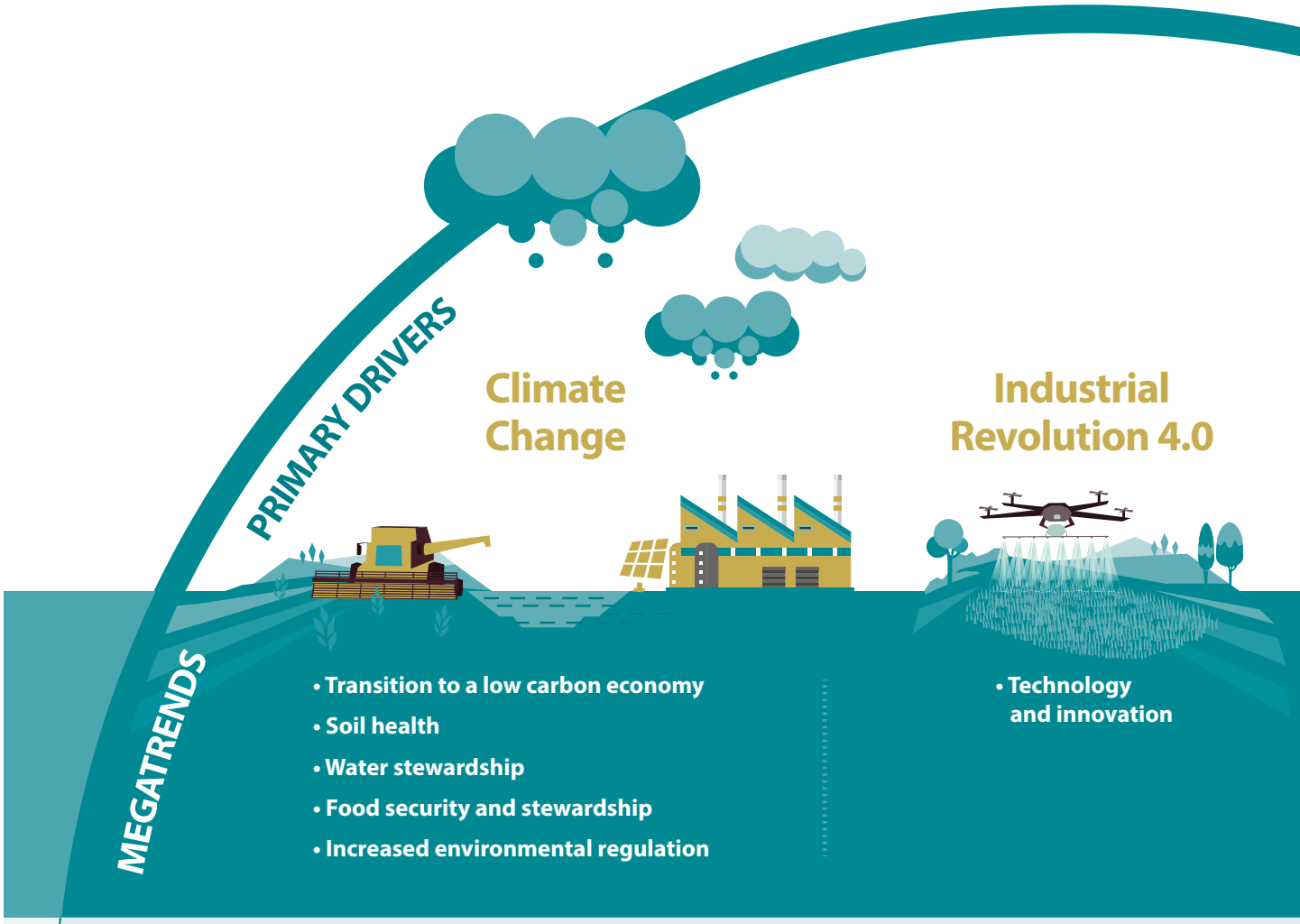
The analysis provided an understanding of how changes in the environment, society and governance are impacting IPL's strategy and operating environment, today and in the future. It also provides a context to review, identify and prioritise the ESG risks and opportunities we need to manage and report on.

The analysis identified 11 megatrends of highest relevance to IPL in the medium to long term. Through interviews with 20 internal subject matter experts and four external stakeholders, this analysis was developed into a selection of 12 topics deemed potentially material to the sustainability of our businesses. These 12 topics were aligned to the GRI Standards, the Sustainability Accounting Standards Board (SASB), and the UN Sustainable Development Goals (SDGs). A summary of the megatrends and material topics can be found on pages 12 and 13. Following review by IPL's Executive Team, the 12 material topics were aligned with IPL's Value Creation Model, providing a clear understanding of how we create value, and for whom.

As in 2022, we again this year undertook a consultation process with internal subject matter experts to ensure the 12 material topics remained relevant in the current operating environment and were aligned to each of our business' stakeholder impacts, interests and outcomes. As we did last year, in this report we present Value Creation models for each of IPL's explosives and fertiliser businesses. We made this decision in 2022, reflecting the increasingly divergent issues and impacts they each face.

The reviews conducted over the past two years also resulted in the refining of prioritised material topics for each of our businesses. Navigating the transition to a low carbon economy was reframed slightly to 'Navigating the decarbonisation transition and reducing GHG'. For IPF, two additional topics, specifically material to the fertiliser business, were added to 'Navigating the decarbonisation transition and reducing GHG' and 'Sustainable use of water'. These were: Sustainable plant-nutrition solutions and Soil biodiversity. The Value Creation Models for each business can be found on pages 34 and 58 and can be used to navigate the material topics relevant to each business.

# Our material topics




## MATERIAL TOPICS

### Transition to a low carbon economy

Navigating the decarbonisation transition and reducing GHG

Industry and government collaboration on green technologies towards Net Zero

Regulatory risk management

### Technology and innovation

Innovation in responsible and sustainable products and services

Technology as an enabler and disrupter

Reciprocal partnerships with customers and suppliers

### Supply chain resilience

Sustainable supply chains

### Future of work

Safe, inclusive and high-performance culture

Zero Harm ambition: Safety and wellbeing

## Changing Business Environment

- **Broader stakeholder awareness of ESG**
- **Growing demand for sustainable investment**
- **Supply chain resilience**
- **Future of work**
- **Circular economy**

### Soil health

Sustainable plant-nutrition solutions

Soil health and biodiversity

### Water stewardship

Sustainable use of water

### Broader stakeholder awareness of ESG

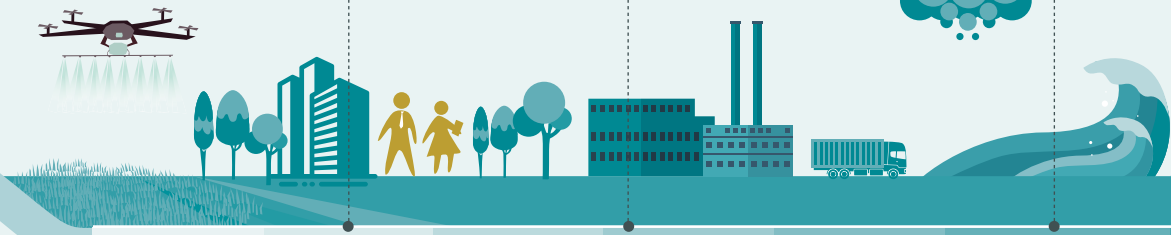
Active engagement in ESG issues

Relationships with our communities that build trust and resilience

## EMERGING MEGATRENDS

- Food security and stewardship
- Circular economy
- Increased environmental regulation has been rolled into Transition to a low carbon economy
- Growing demand for sustainable investment has been rolled into Broader stakeholder awareness of ESG

# Highlights on our journey



DYNO NOBEL

**INCITEC PIVOT LIMITED**

INCITEC PIVOT FERTILISERS

**2009**

**Annual Carbon Disclosure Project (CDP) Climate Change** reporting commences.

Appointment of our first dedicated sustainability management position, reporting to the CFO.

**2010**

Accepted to the **Dow Jones Sustainability Index: DJSI** (now the S&P Global CSA) for the first time.

**Adoption of Global Reporting Initiative (GRI)** framework for annual sustainability reporting.

Initial assessment of the risks and opportunities associated with climate change by IPL Leadership.

**2013**

**Joined the EcoVadis platform** to assess and communicate our sustainability initiatives with our supply chain partners.

Implemented the IPL Community Investment Framework.

Implemented our Australian Indigenous Employment Program.

**2014**

Annual Carbon Disclosure (CDP) Water Security reporting commences.

Inclusion in the FTSE4Good index for the first time.

Development of our Australian Indigenous Relations Policy.

**Setting of our first GHG intensity reduction target:** a 1.5% reduction in GHG emissions per tonne of Australian manufactured product by 2015.

**2015**

**Setting of our first global greenhouse gas reduction target linked to executive remuneration**: a 2% global reduction in $tCO_2e/t$ ammonia produced by 2017.

Endorsement of our first Australian Indigenous Reconciliation Action Plan by the IPL Board and by Reconciliation Australia.

Development of our 'My Potential' program to assist women to progress into leadership roles.

Participation in establishing the Sugar Cane Fertiliser Bag Recovery Trial to collect and recycle our fertiliser packaging.

**2018**

**Adoption of TCFD reporting framework** within the 2018 Sustainability Report.

Creation of IPL-specific 2°C and 4°C future climate-related scenarios and completion of our second climate-specific risk and opportunity assessment.

First Company-wide Gallup based global employee engagement survey completed.

**Modern Slavery Policy adopted and implemented** and release of our first annual Modern Slavery Statement.

Completion of the A$2.7m Moranbah Solar Hydrogen Feasibility Study, supported by A$0.9m from the Australian Renewable Energy Agency (ARENA).

Setting of our first absolute GHG reduction target of 5% by 2026 against our 2020 baseline.

Became a founding member of the Australian Climate Leaders Coalition (CLC).

Began annual reporting of Scope 3 GHG.

**Became a participant in the United Nations Global Compact (UNGC).**

IPL Human Rights Working Group formed.

Projects identified supporting a potential pathway to >42% reduction in operational GHG by 2030 for our current portfolio.

IPL Transition Plans to 2030 by business, supported by specific projects.

Establishment of Sustainability Capex to fund 2030 Transition Plans.

Design of scope 3 management strategies for integration at business unit level.

Investigation of Science Based Targets.

Australian municipal water use reduced by 11% due to A$4m Gibson Island recycled water pipeline project.

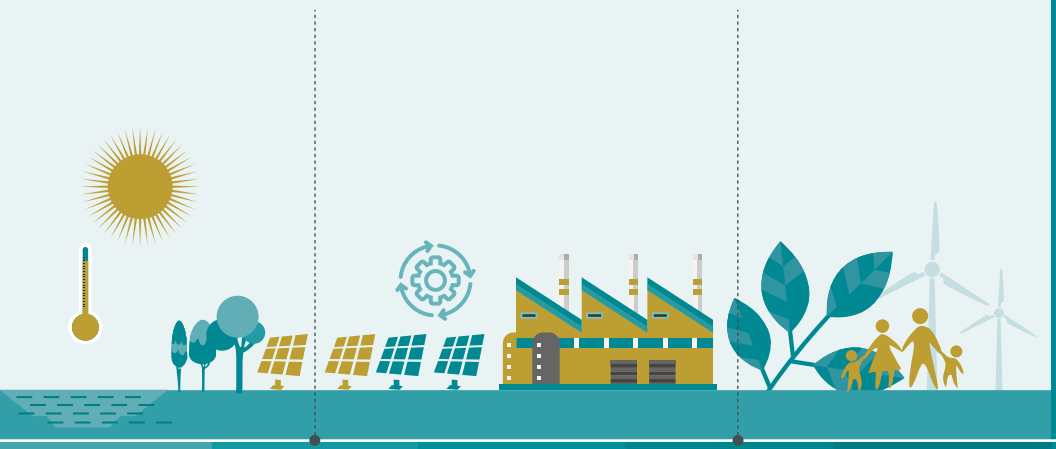
**Preparation for reporting against the IFRS Foundation's International Sustainability Standards Board (ISSB) S1 and S2 reporting frameworks.**

**Integration of TNFD LEAP assessment identified nature-related risks and opportunities into our IPF risks management framework and business strategy.**

**Progression of our decarbonisation projects, including installation of Tertiary $N_2O$ Abatement at Moranbah in 2024.**

**Further investigation of Science Based GHG reduction Targets (SBTs) using the SBTi Chemicals Sector methodology, to be released in 2024.**

**Continued development of more sustainable products and services in partnership with suppliers, customers and research organisations.**



**2019** | **2020** | **2021** | **2022** | **2023** | **NEXT STEPS** ❯

**Selected for the Bloomberg Gender-Equality Index** for the first time.

Adoption of long-term strategy to grow IPF from a leading fertiliser company to a sustainable soil health company.

Adoption of the IPL Climate Change Policy and updating of the charter of the Audit and Risk Management Committee to formally enshrine Directors' roles in relation to the strategic management and oversight of climate change related issues.

Achieved a target of 3% First Nations employees across our Australian businesses.

**Chief Strategy and Sustainability Officer** appointed to the Executive Team.

Formation of the Sustainability Steering Committee and Decarbonisation and Energy Transition Steering Committee, both chaired by our CEO.

Release of our first stand-alone, TCFD aligned Climate Change Report.

Setting of 5% by 2025 and 25% by 2030 GHG targets and Net Zero Ambition.

Updated climate risk assessment using 1.5°C, 2°C, 3°C+ and Delayed Action (IPR) scenarios.

Release of our Innovate Reconciliation Action Plan, our second three-year RAP, in consultation with Reconciliation Australia.

Implementation of the IPL Indigenous Scholarship program.

**Conducted an initial Taskforce on Nature-related Financial Disclosures (TNFD)** risk and opportunity assessment for our IPF business.

**A$50m** in Sustainability Capital invested in progressing our four major decarbonisation projects.

Final Investment Decision expected before the end of the 2023 calendar year on our world-scale Gibson Island Green Ammonia Project in partnership with FFI.

High level Just Transition risk assessment completed for employees across our major manufacturing facilities.

Release of the IPL Energy Policy.

# Our Sustainability Scorecard

✓ Well progressed or target achieved  − Steady progress  ✗ Below expected progress

| CATEGORY | MATERIAL ISSUE | INDICATOR | TARGET/COMMITMENT | 2023 PROGRESS | |
|---|---|---|---|---|---|
| **ENVIRONMENTAL TOPICS** | **REDUCING OUR ENVIRONMENTAL IMPACT** | | | | |
| | Navigating the decarbonisation transition and reducing GHG | Capital projects to achieve Net Zero Pathway | 2024 installation of Moranbah Tertiary $N_2O$ abatement to achieve our short-term 5% absolute GHG reduction by 2025 | Moranbah $N_2O$ Tertiary Abatement project approved and on schedule | ✓ |
| | Sustainable plant-nutrition solutions | Number of soils and crop plant tests | 20% increase by 2023 against 2020 baseline | 29% increase against 2020 baseline | ✓ |
| | Soil health and biodiversity | Introduction of a soil health benchmarking service | Establish statistically significant volumes of IPF Soil Health Tests required in each agronomy region (to establish benchmarks) by 2024 | Steady progress | − |
| | Sustainable use of water | Australian municipal water use | 25% reduction by 2023 | 42% reduction in 2023 | ✓ |
| **SOCIAL TOPICS** | **SAFE, DIVERSE AND ENGAGING WORKPLACE** | | | | |
| | Safe, inclusive and high-performance culture | Employee engagement scores | Meaningful improvement (+0.1) by 2023 | Deferred to 2024 when a global employee survey is planned | − |
| | | Gender Diversity | Year-on-year increase in % of female employees | Up 0.1 percentage points, equating to a 0.7% year-on-year increase | ✓ |
| | | Australian First Nations Employees | 3% | 2.9% | − |
| | Zero Harm ambition: Safety and wellbeing | TRIFR | 0.7 | 0.91 | ✗ |
| | | Tier 1 and 2 process safety incidents | Year-on-year reduction | 14 (-44%) | ✓ |
| | **RECIPROCAL PARTNERSHIPS WITH CUSTOMERS AND SUPPLIERS** | | | | |
| | Customer partnerships | Maintaining NPS scores using annual customer engagement action plans | Between 30-40 | Maintained | ✓ |
| | Innovation in responsible and sustainable products and services | Percentage of new products introduced which improve sustainability outcomes | 100% | 100% (see page 46 for a list of these with the sustainability benefits) | ✓ |
| | Sustainable supply chain | Number of New Suppliers Assessed for ESG (including Modern Slavery) | 10 per year | 100+ | ✓ |
| | | Number of Deep Dive ESG Audits | 5 per year | 2 completed (5 initiated in 2023) | ✗ |
| | **RELATIONSHIPS WITH OUR COMMUNITIES THAT BUILD TRUST AND RESILIENCE** | | | | |
| | Community safety, support and connection | Compliance with Community Safety Communications | 100% | 100% | ✓ |
| | | Promotion and celebration of Australian Aboriginal and Torres Strait Islander events and dates of significance | Deliver the outcomes on page 18 of our Innovate RAP by 2023<br>Completion of a new Innovate RAP in 2024 | Celebration of NAIDOC Week and other events of significance | ✓ |
| **GOVERNANCE TOPICS** | **GOOD GOVERNANCE THAT DRIVES SUSTAINABLE RETURNS** | | | | |
| | Industry and government collaboration on green technology towards Net Zero | Partnerships to investigate emerging green technologies | Completion of two green hydrogen/ ammonia feasibility study partnerships by 2023 | GI FEED study complete and second MOU signed with Keppel | ✓ |
| | Technology as an enabler and disruptor | Number of new products introduced to customers | 3 per year | 4 in 2023 (see pages 46 and 79) | ✓ |
| | Active engagement in ESG issues | Frequency of ESG communications to investors and other stakeholders | Year-on-year increase | Increase in investor presentations, proxy meetings, and one-on-one communications on ESG issues | ✓ |
| | Regulatory Risk Management | Significant Environmental Incidents | Zero | Zero | ✓ |

# Aligning with the United Nations Sustainable Development Goals (SDGs)

The UN SDGs are a set of 17 goals and 169 targets adopted by world leaders at the United Nations to end poverty, fight inequality and tackle climate change by 2030. Although primarily designed for governments, the SDGs call for action by all countries and stakeholders and we recognise that we can contribute. IPL has conducted an analysis of our business strategy and material sustainability issues to identify our priority SDG goals and targets. Our progress on these is reported below.

| | | SDG Target | | IPL alignment | |
|---|---|---|---|---|---|
|  | **END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE** | **2.4** | By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality. | **IPL target** | 20% increase in soils and plant testing by 2023 against a 2020 baseline, to promote sustainable use of fertilisers to our customers: 29% increase in 2023. |
|  | **ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS** | **5.5** | Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life. | **IPL target** | Year-on-year increase in female employees across our global workforce: 0.1 percentage point increase in 2023. |
|  | **ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER FOR ALL** | **6.4** | By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity. | **IPL target** | 25% reduction in IPL Australian municipal water use by 2023, with a 42% reduction achieved. |
|  | **MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE** | **11.4** | Strengthen efforts to protect and safeguard the world's cultural and natural heritage. | **IPL target** | Completion of a new Innovate Reconciliation Action Plan in 2024. |
|  | **ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS** | **12.6** | Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle. | **IPL strategy** | Innovative products and services which encourage and enable our customers to adopt more sustainable consumption and production practices. |
| | | | | **IPL target** | Annual reporting to Global Reporting Initiative (GRI), Taskforce on Climate-related Financial Disclosures (TCFD) and Sustainability Accounting Standards Board (SASB) Standards. |
|  | **TAKE URGENT ACTION TO TACKLE CLIMATE CHANGE AND ITS IMPACT** | **13.1** | Strengthen resilience and adaptive capacity to climate-related disasters. | **IPL target** | Comprehensive physical and transitional risk assessment against 1.5°C, 2°C, 3°C+ and Inevitable Policy Response future climate-related scenarios, refreshed three-yearly. |
| | | **13.2** | Integrate climate change measures into policies, strategies and planning. | **IPL target** | Absolute GHG reduction of 5% by 2025[1], 25% by 2030[1] and Net Zero by 2050 Ambition. In 2023 we progressed four projects which provide a pathway to >42% reduction in operational GHG by 2030. We will review our targets following the release of the SBTi Chemicals Sector Methodology for Paris-aligned targets, expected in 2024. |

1. Our short- and medium-term targets are absolute reductions against our 2020 FY baseline year operational (scope 1 and scope 2) emissions which have been adjusted, for the anticipated sale of the Waggaman, Louisiana plant, to 2,807,743 $tCO_2e$.


# Zero Harm

**IPL's Zero Harm Company value is prioritised above all others and is central to our operations and culture. IPL's Zero Harm ambition is focused on ensuring the safety of our people and the communities in which we operate. Our commitment is to ensure that every person goes home without physical or psychological injury. At IPL, Zero Harm extends to encompass the environment and includes psychological safety as well as physical safety. Our safety leaders create SafeGround to ensure everyone is supported to speak up and ensure Health, Safety, Environment and Community hazards are raised and addressed.**

## One IPL Zero Harm Strategy

Ensuring the safety and wellbeing of people and the environment is good business. Our One IPL Zero Harm Strategy drives our focus in achieving industry-leading performance in occupational health, safety, process safety and environmental management.

Linked to the Health, Safety, Environment and Community Management System (HSECMS), the One IPL Zero Harm Strategy comprises the four strategic themes shown in the table below.

The One IPL Zero Harm Strategy ensures that the Company values of 'Zero Harm for Everyone, Everywhere' and 'Care for the Community and our Environment' are embedded in our systems, standards, leadership expectations and learning process to consistently, practicably and effectively drive improvement across IPL's global operations.

| Simplify | Get the Fundamentals Right | Lead and Engage | Strengthen our Learning Culture |
|---|---|---|---|
| **We support people with easy to understand and easy to use systems** | **We define our minimum expectations: we will be excellent at the fundamentals** | **We empower, develop and expect everyone to be leaders in Zero Harm** | **We learn, we share, and we fix for good** |
| » We have a clear HSECMS framework that is accessible and easy to use by staff and contractors alike.<br>» Our employees and contractors tell us our systems and processes are easy to understand and use.<br>» We have a shared ambition and language for Zero Harm.<br>» We standardise and streamline our systems and processes wherever practical. | » Minimum standards and expectations are understood and embraced by all people, at all levels.<br>» We have established global standards for Operations Risk Management.<br>» We consistently apply non-negotiable safety and environmental standards.<br>» We continue to build and strengthen Personal and Process Safety through defined operating discipline requirements.<br>» We strengthen process Safety with operating discipline to Management of Change (MoC), procedures and affirming effectiveness of critical controls. | » We have invested in strengthening the capability of our leaders – via our HSECMS and capability frameworks.<br>» Each day, we see examples of leaders who support, coach and empower.<br>» There is a high level of ownership for our Zero Harm strategy.<br>» Our leaders are visible in the field, creating SafeGround.<br>» We promote leaders who support and understand our Zero Harm strategy.<br>» We reward and recognise the right Zero Harm behaviours. | » Our learning culture is deeply embedded.<br>» We share both our learnings as well as our success stories.<br>» We have a well-established and systematised process for sharing high consequence events.<br>» Our employees and contractors are highly involved in continuous improvement.<br>» We learn from repeat events to prevent significant events. |

## SafeTEAMS

In 2023, we continued our focus on improving safety and wellbeing through effective visible leadership and increased engagement across our operations 'in the field'. SafeTEAMS, IPL's global safety program, provides a common language and common tools to build our people's mindsets and skillsets to further strengthen our safety culture and engagement across the business.

This behavioural-based program was designed, developed and delivered internally during 2020-2023, with input into the design from across the organisation. Approximately 90% of our global workforce has now been trained. Embedding tools have also been designed and developed to support implementation and to anchor the program across the organisation such as posters and in-field leadership tools including pocket cards, toolbox talks, conversation starters, leader guides, videos and leader briefings.

With the implementation of SafeTEAMS, there has been improvement in our Zero Harm performance. This has been achieved through maintaining operating discipline in our safety fundamentals with targeted and quality safety conversations. With the creation of SafeGround, IPL has improved employee engagement through visible leadership which also supports a strong reporting culture.

## What is SafeGround?

SafeGround is built on the concept of psychological safety.

It is built through creating a culture where everyone feels that we are on safe ground to share ideas, perspectives and opinions, and to speak up without fear of embarrassment, rejection or punishment.

## Looking after our people's mental health

IPL recognises both the importance of creating a mentally healthy workplace and workforce, and our responsibility for incorporating psychosocial risk management as a part of broader risk reduction.

Our mental health and wellbeing programs are focused on providing employees with concepts related to the 'why', which encompasses our purpose, values and beliefs, and the 'how', which is focused on skills to engage in difficult conversations or to create SafeGround. We are focusing on leadership skills to listen, engage and work with people to understand and address their concerns and expectations, and demonstrating proactive efforts to improve mental health outcomes for employees. This is resulting in improvement of workplace health performance.

To further support this, in 2023/2024, IPL is creating a One IPL Mental Health Framework that will:

- Be a standardised, systemic risk-based approach to managing mental health and wellbeing across IPL.
- Shift the business to a more proactive, preventative approach to mental health and wellbeing.
- Increase engagement and empower all IPL managers and employees to proactively build a resilient workforce, identify and manage psychosocial risks, and continue to embed mental health and wellbeing into the culture of the organisation across all areas including leadership, human resources, and health and safety.
- Include a corporate framework with a clear governance structure and guidelines, and assign clear accountabilities relating to mental health.
- Generate data that will inform strategic decisions and investments, including by assessing the effectiveness of implemented programs and strategies.

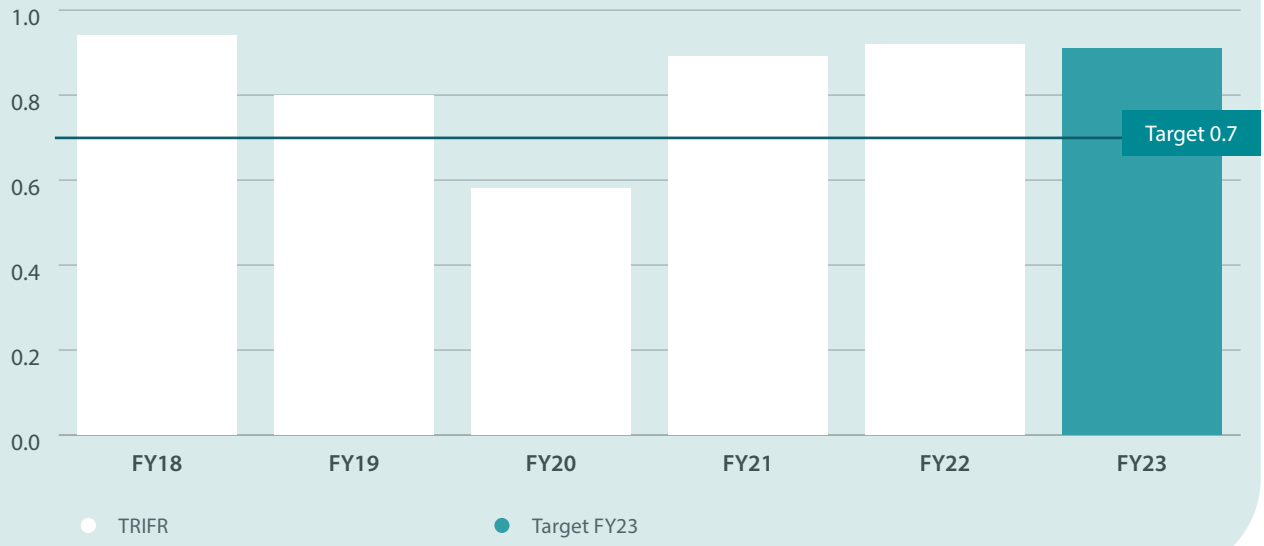
This builds on IPL's successful 'SafeGround' concept, championed by our SafeTEAMS program. By embedding psychological safety, or 'SafeGround' for important conversations on safety across the business, including physical and psychosocial hazards and personal and mental health concerns, 'SafeGround' is also contributing to our strong 'care culture'.

## 2023 Zero Harm performance

We monitor our Zero Harm performance through a balanced scorecard which provides insights across key leading and lagging metrics of personal safety, process safety, environment and Zero Harm plan improvement initiatives. IPL's performance in 2023 has been positive. Over the year the Total Recordable Incident Frequency Rate (TRIFR) has plateaued at 0.91 (target of 0.70). There has been a 36% reduction in the lost workday case severity rate over the last two years.

IPL can also report a year-on-year reduction in Process Safety Incidents, with 14 Tier 1 and Tier 2 events taking place in 2023, compared to 25 in 2022. There have been two Tier 1 events, a significant improvement against the six reported in 2022.

| Zero Harm – Key Metrics[1] | 2023 | 2022 | 2021 |
|---|---|---|---|
| TRIFR[2] | 0.91 | 0.92[3] | 0.89[4] |
| Significant Environmental Incidents | 0 | 0 | 0 |
| Process Safety Incidents | 14 | 25 | 38 |




1. Data excludes Titanobel, which was purchased in 2022. Titanobel Zero Harm metrics will be included in our 2024 reporting.
2. TRIFR is calculated as the number of recordable injuries per 200,000 hours worked and includes contract workers.
3. Restated in 2023 due to the addition of two incidents reclassified as recordable since publishing of the 2022 TRIFR.
4. Restated in 2023 due to an additional incident that was reclassified as recordable since publishing of the 2021 TRIFR.

| Significant Event Management – Key Metrics[1] | 2023 | 2022 | 2021 |
|---|---|---|---|
| Investigations completed within 30 days (%) | 94 | 89 | 87 |
| Actions completed by original due date (%) | 96 | 85 | 96 |

1. Data excludes Titanobel, which was purchased in 2022. Titanobel Zero Harm metrics will be included in our 2024 reporting.

## Significant Events

Over the past three years IPL has had an increased focus on learning from events which have a high potential for harm to people or the environment. In 2023, the targeted performance in significant event management for investigations completed and actions closed out on time was achieved. The quality of our investigations continues to improve with a focus on investigation competency and embedding systemic learnings into our operating systems from both internal and external events through the Global Significant Event Governance Forum. IPL is also focused on increased reporting of significant event hazards and near misses which continues to build hazard awareness and hazard reduction activities for risks which have the highest potential consequence to people and the environment.

## Key Zero Harm initiatives in 2023

A number of initiatives were completed in 2023 to support delivery of positive Zero Harm results across the business. These included:

- **Significant improvements in Process Safety and Operations Risk Management.** Our teams have been working to improve Process Safety through Operations Risk Management (ORM) which is setting the standard of how process safety risks are managed resulting in significant improvement in process safety performance, hazard awareness and critical control management.
- **A 'Line of Fire' awareness campaign was rolled out globally.** 'Line of Fire' is defined as the zone in a work area where there is a risk to personnel of moving or dropped objects, vehicles, and pressure releases. The campaign aims to increase staff awareness of Line of Fire hazards and identify and monitor controls for Line of Fire hazards when planning and executing work.
- **Environmental training.** Environmental risk training targeting both managers and employees has been developed and rolled out across IPL. Incitec Pivot Fertilisers (IPF) and Dyno Nobel Asia Pacific (DNAP) employees across Australia complete an online environmental awareness training module. In Dyno Nobel Americas (DNA), environmental training has included the safe handling of asbestos and other hazardous wastes, spill prevention, control and countermeasures, and stormwater management to prevent the pollution of waterways.
- **World Safety Day – 28 April.** During the week of 28 April, IPL delivered its annual World Safety Day campaign. This year the focus was on promoting the importance of powerful conversations to strengthen our Zero Harm culture and to support the 'why' behind the fundamentals of safety. World Safety Day is an opportunity for everyone across the business to refocus on their commitment to Zero Harm for Everyone, Everywhere.
- **Finish with Pride Program.** This program was planned and executed to deliver an excellent Zero Harm outcome during the Gibson Island Plant closure. Its focus was on improving the safety culture by celebrating wins, safely completing critical activities including maintenance and decommissioning, ensuring active field leadership and using numerous employee engagement tactics.
- **Turnaround HSE Governance.** Excellent safety performance was achieved during our four major turnarounds during 2023, which are scheduled closures for maintenance. This was due to the continued delivery of our Turnaround Governance Model which clearly defines the associated leadership organisational structure, standardised work processes, compliance and assurance activities for turnarounds.
- **DNA** piloted a new initiative aimed at reducing the risk of injuries relating to hazardous manual tasks. This is being rolled out across the business and encompasses training and risk assessments utilising a new online ergonomic module. The module will enable operational personnel to influence the design of workplaces, support a systemic approach to prioritising and planning improvements, and identify high impact/low cost task improvements that can be scaled across the business.

## Environmental Performance

IPL takes seriously its commitment to protecting the environment in all locations where it operates. In 2023, IPL has sustained its excellent environmental performance with Zero Significant Environmental Incidents reported. This has been achieved through continued awareness training, embedding of key environmental compliance initiatives and the launch of our inaugural World Environment Day campaign which focused on raising awareness of our environmental fundamentals. We also achieved our target for Environmental Consequence 4+ Incidents.

In 2023, IPL is proactively investing in the remediation of legacy environmental impacts which can be addressed with the decommissioning of the natural gas based manufacturing plant at Gibson Island. Further detail on these actions can be found in the IPF section of the report under 'Environment', on page 65.

In line with the Zero Harm 'Get the Fundamentals Right' strategic theme, 2023 has seen a continued focus on tools, systems and frameworks to consistently assess, articulate and respond to environmental risks across IPL's global operations. Software systems are used to ensure environmental licence obligations translate into clearly articulated responsibilities for sites, business units and individual employees. This approach effectively integrates environmental protection into the operational 'day-to-day' activities of our businesses. Across our DNA operations, rigorous formal analyses of common environmental risks are taking place to develop critical control verifications (CCVs) that address the impacts of these risks and further adopt these as a global standard throughout our operations.

## World Environment Day 2023

Caring for the environment is a core value at IPL. During the week of 5 June 2023, the Company launched its inaugural World Environment Day campaign – an opportunity to reflect on the importance of protecting the environment and our social licence to operate. Global activities were focused on raising the awareness and the importance of our environmental fundamentals, seeking opportunities to reduce, recycle or re-use waste, reducing water usage and preventing contamination.

World Environment Day is also a day to step into the shoes of our stakeholders, the people and communities that trust us to use resources responsibly and reduce our environmental impact.

Key messages throughout the campaign included:

- We can get better results when we understand environmental hazards.
- We can all contribute to reducing the risk of environmental harm.
- We are trusted to responsibly and safely handle hazardous materials, waters and chemicals.
- We need SafeGround for ideas and learnings to be shared.
- We can learn from environmental events, as well as from successes.

Positive feedback and numerous improvement ideas for the next campaign were generated from leaders and employees across the business following the launch of this campaign.

# People

**In a changing global economy, it is vital that we build a culture that protects and promotes the safety and welfare of our people, protects the environment and communities, and supports the Company's objectives.**

## Building a safe, inclusive and high performance culture

### Our People First Strategy

Our three-year 'People First Strategy', which places people at the centre of everything we do, is based on four strategic focus areas: Engaging Leaders, Talented People, Inclusive Workplace and Partnerships. Implemented in 2020, its strategic commitments seek to provide employees with an experience that is inclusive, collaborative and offers growth opportunities that inspire and engage. See the table on the following page for a summary of the range of initiatives we have undertaken this year to support our People First Strategy. The following sections outline in more detail the work we have undertaken in the areas of the People Strategy, including Diversity, Equity and Inclusion, and Leadership Development.

### 2023 People Strategy review

In 2023, we undertook a review of our People Strategy to ensure a continued focus on enabling the delivery of our business strategy.

A core element of the refreshed People Strategy, which will be implemented in 2024, is enhancing a safe, inclusive and high performance culture. A summary of what we mean by a safe, inclusive and high performance culture is below:

- Safe: At the heart of our culture is the physical and psychological safety of our people, and we are unwavering in our commitment to keeping our people safe.
- Inclusive: We are committed to creating an environment where our people's differences are respected, valued and leveraged to strengthen team performance.
- High Performance: Our high performance culture is centred around four guiding principles of being safe, focused, realistic and delivering. Our Senior Leaders have commenced work to more intentionally align what we say and do, what we signal to others, and our management processes and systems to these four guiding principles.

The following table summarises the range of initiatives and updates we have undertaken this year to support our People First Strategy.

## People First Strategy

| People First Strategic focus area | Engaging Leaders | Talented People | Inclusive Workplace | Partnership |
|---|---|---|---|---|
| 2023 Highlights | Our revised *My Potential* program for female leaders was run across the Americas and Asia Pacific regions, with Company-wide virtual sessions to build a global IPL community for our female leaders.<br><br>Our first global leadership program, Leadership Foundations, which is aimed at the fundamentals of leadership, was continued. In 2023 the program was also extended to more senior leaders to support the embedding of fundamental leadership tools consistently across all levels of our organisation. 50% of DNA, 81% of DNAP and 74% of IPF Frontline Leaders have participated in the training so far.<br><br>Work began at the senior leadership level to more intentionally build a culture which aligns what we say, what we do, what we signal and our management systems and processes. | We implemented new Frontline Management Training intended to equip our managers with the practical knowledge and skills for core operational and business processes. In 2023, 62 people completed 92 learning activities, ranging from health, safety and environmental management to financial management.<br><br>We increased our focus on critical roles with quality succession plans, to ensure future capability across key positions.<br><br>The Americas' region continued its internship program with 40% female participants in 2023.<br><br>Our Australian business continued its Graduate Program, with 66.7% of the current cohort being female. | We commenced Equity and Inclusion Workplace Reviews, aimed at identifying and improving the safety, equity and inclusiveness of the physical aspects of our operations. These involve reviewing items such as equitable bathroom facilities, PPE accounting for physical and cultural differences and physical accessibility. The reviews were completed at 19 of our sites in 2023 and are planned to continue throughout 2024.<br><br>We established a review process, aimed at identifying and improving equity and inclusion of our core people processes. In 2023, we completed a review of our recruitment process and performance and reward process. Work is planned for 2024 to extend these reviews across our core people processes.<br><br>To further foster an inclusive workplace, our Small Acts of Inclusion program continued in the Americas region and the Upstander program continued in Australia.<br><br>Celebrated **NAIDOC Week**, and **National Reconciliation Week**. | We improved communication channels across our business to ensure the culture we are building is understood and highly visible, including increased frequency of virtual global Company Townhall meetings, with opportunities for all employees to ask questions and provide feedback.<br><br>Dyno Nobel was recognised for 30 years of service by the Australia Resources and Energy Employer Association (AREEA) who recognised our longstanding commitment to supporting the resources sector and contributing to making it a better place to work.<br><br>We continued our collaboration with the American Australian Association Veterans' Scholarship providing education opportunities for veterans with future employment possibility.<br><br>Work began on renewing our third Reconciliation Action Plan (RAP), with an engaged representation from across the business. The focus is on identifying areas in which our business and our people can specifically support progress towards reconciliation. |

## Diversity, Equity and Inclusion

As a global organisation with operations in over 18 countries, IPL understands that a focus on diversity, equity and inclusion is good for our business. It broadens the viewpoints and ideas brought to solving our customers' and our business' challenges, and gives us a deeper understanding of the customers we serve and the communities we work in.

The percentage of female employees in our global workforce increased by 0.1 percentage points to18.6% in 2023. Through our refreshed Diversity, Equity and Inclusion strategy, we aim to increase the representation of women in our business in the coming financial year. For more information on diversity please access our **Diversity Policy** and our **2023 Corporate Governance Statement**.

| Female representation[1] | FY23 | FY22 | FY21 |
|---|---|---|---|
| Women on our Board | 25.0% | 42.9% | 42.9% |
| Women on our Executive Team | 22.2% | 30.0% | 37.5% |
| Women in Senior Management | 21.3% | 21.0% | 20.5% |
| Women in Management | 21.3% | 20.1% | 19.0% |
| Women in Professional Roles | 23.7% | 23.7% | 21.1% |
| Women in our Global Workforce[2] | 18.6% | 18.5% | 17.7% |

1. Data as at 30 September each year.
2. Includes total global workforce based on managed operations (excludes non-managed operations and joint ventures).


## Bloomberg GEI

In FY23, IPL was selected for inclusion in the Bloomberg Gender Equality Index (GEI) for the fifth consecutive year. The GEI measures gender equality across five pillars: female leadership and talent pipeline, equal pay and gender pay parity, inclusive culture, and anti-discrimination.

Companies that were included in this year's index – and there were just over 500 around the globe – scored at or above a global threshold established by Bloomberg that reflects the achievement or adoption of best-in-class statistics and policies.

## Reconciliation

IPL's second three-year Reconciliation Action Plan (RAP), our Innovate RAP, was released in 2021 and guides actions throughout our business in support of reconciliation and engagement with Australian First Nations people and communities. Our RAPs form an important part of our drive to build a diverse, equitable and inclusive organisation. IPL's RAP Working Group is responsible for taking forward this important work. Led by the Vice President Metals and Customer DNAP, the group is working on our third three-year RAP which will be implemented in 2024.

As part of the current RAP, in 2021 IPL established an Indigenous Scholarship Program together with the University of Queensland. The scholarship gives Aboriginal and Torres Strait Islander students the chance to start their working life in one of our operations or offices in Queensland. Running for its second year, the Indigenous Scholarship Program saw its first recipient awarded during NAIDOC Week celebrations at our Gibson Island site in 2022. The next scholarship is planned for 2024.

Raising awareness of Australia's First Nations cultures and the ways in which IPL's operations interact with Country is an important priority for the RAP Working Group. During NAIDOC Week Celebrations, several sites across Australia joined in activities to celebrate and recognise Aboriginal and Torres Strait Islander culture. Indigenous guest performers and public speakers shared with their knowledge through traditional ceremonies, dance and song.

Our series of 'Toolbox Talks' to support our reconciliation efforts have also continued: these focus on educating our people about Indigenous culture and raising awareness about significant dates for Australia's First Nations Peoples, such as National Reconciliation Week and NAIDOC Week.

We continue to work towards increased Australian First Nations participation in our workforce and, in 2023, our staff comprised 2.9% Australian First Nations employees.

We also became a member of the Business Council of Australia's 'Raising the Bar' program which aims to see members steadily increase their procurement spending with Fist Nations suppliers.

| | FY23 | FY22 | FY21 |
|---|---|---|---|
| Australian First Nations Employees in our Australian Workforce | 2.9% | 2.9% | 2.5% |

## NAIDOC Week Celebrations across IPL

IPL recognises NAIDOC Week as an opportunity for all Australians to celebrate and recognise Aboriginal and Torres Strait Islander people and the rich cultural history that makes Australia unique. From 2 to 9 July, teams from across IPL's Australian operations stopped to acknowledge this important week.

The 2023 theme was 'For Our Elders' which provided us with an opportunity to honour the role that Elders have and continue to play as cultural knowledge holders, trailblazers, nurturers, advocates, teachers, survivors, leaders, hard workers and loved ones. To this day and across every generation, Elders continue to play an important role and hold a prominent place in Aboriginal and Torres Strait Islander communities and families.

NAIDOC Week also marked the end of IPL's 'Dollar-for-Dollar' fundraising campaign for the Westerman Jilya Institute for Indigenous Mental Health, an Aboriginal community-controlled not-for-profit organisation. Together we raised A$7,680, including matching funds from IPL. We also donated $5,000 to Jilya to acknowledge R U OK? Day.


Our support will help to ensure that Jilya's vision, which is to provide culturally and clinically informed mental health and suicide prevention responses to high-risk Australian Indigenous communities, can be achieved.

IPL's celebrations of NAIDOC week included our Interim CEO hosting NAIDOC activities at our Southbank office. At our Helidon IS Plant, NAIDOC Week 2023 was an opportunity to honour and reflect on Australia's shared history, and opportunities to support the rights and wellbeing of Aboriginal and Torres Strait Islander people, and work towards reconciliation.

### Learning and Development

At IPL, we believe the whole is greater than the sum of its parts and we encourage our people to partner with teams across our global footprint to share experiences and ideas at all levels of our organisation. Our approach to ensuring that all of our employees are trained and competent to complete their work in their role is underpinned by training that is matched to detailed training needs analysis. We have trainers across our operations to focus on the transfer of skills and knowledge so our people can work safely and efficiently.

In 2023 we progressed programs to develop our leaders, including My Potential, our Leadership Foundations Program and our Frontline Management Program. Refer to the table on page 26 for details.

In addition to the development of our leaders and managers, we ensure our people have the necessary knowledge to identify and manage ESG risks right across our global business. See pages 51 and 85 for some of the training and development conducted in 2023 across our Dyno Nobel and IPF businesses.

## Living our Values through ensuring a Just Transition for our people

A lack of competitively-priced natural gas led to a decision to cease current, natural gas based ammonia manufacturing operations at our Gibson Island site in Queensland, Australia, during 2023, before that capability is potentially converted to green ammonia. 193 employees were affected by this decision. To ensure our colleagues' wellbeing, IPL put a managed transition plan into action.

Outplacement services were engaged by the business to support the delivery of the transition plan. Support for our employees included 24/7 access to a career resource network, sessions with dedicated career coaches, expert assistance with personal branding, and direct connections to new employment opportunities. To date, 75% of affected employees have accessed the services, with 58% known successful transitions made.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Nutrient Advantage
1000kg


# Our Explosives Business

**Dyno Nobel is IPL's global explosives business. It is the second-largest industrial explosives distributor in North America and the second-largest provider of industrial explosives in Australia. Dyno Nobel has 32 manufacturing facilities on three continents, manufacturing over 25,000 tonnes of packaged explosives and more than 1 million tonnes of ammonium nitrate capacity.**

Our explosives business is organised into two business units, Dyno Nobel Americas (DNA) and Dyno Nobel Asia Pacific (DNAP).

In the Americas, the DNA business provides ammonium nitrate based industrial explosives, initiating systems and services to the quarry and construction sector primarily in the Southern US, North-east US and Canada; the base and precious metals sector in the mid-West US, West US and Canada; and the coal sector in the Powder River Basin, Illinois Basin and Appalachia. Additionally, DNA supplies nitrogen-based products to agricultural and industrial chemical markets.

In the Asia Pacific region and Europe, DNAP provides ammonium nitrate based industrial explosives, initiating systems and services to the base and precious metals and metallurgical coal sectors in Australia, and internationally to several countries including Indonesia, Papua New Guinea and Turkey.

In 2022, IPL purchased Titanobel in Europe and entered the French quarry and construction market. The acquisition provides access to the Europe, Middle East and Africa (EMEA) region, where Dyno Nobel's blasting expertise will assist the market in deploying its future mineral opportunities. Combined with the existing Nitromak business in Turkey, this provides a compelling foundation to grow the business across EMEA.

## Global manufacturing

In North America, Dyno Nobel manufactures ammonium nitrate at its Cheyenne plant in Wyoming and its Louisiana plant in Missouri. Initiating systems are manufactured at facilities in Connecticut, Kentucky, Illinois, Missouri, Chile and Mexico, and are also sourced from DetNet South Africa Pty Ltd (DetNet), an IPL electronics joint venture.

In addition, the business wholesales agricultural products manufactured at its St Helens facility in Oregon and its Cheyenne facility. An overview of our global operations is provided on pages 32 to 33.

In Australia, the business manufactures ammonium nitrate at its Moranbah manufacturing facility in the Bowen Basin, the world's premier metallurgical coal region. It also has a 50% interest in the ammonium nitrate facility near Moura in Central Queensland. Initiating systems are manufactured at Dyno Nobel's Helidon facility in Queensland and are also sourced from IPL facilities in the Americas and its joint ventures.

In March 2023, after undertaking a strategic review of the ammonia manufacturing facility located in Waggaman, Louisiana, USA, IPL decided to sell the facility to CF Industries Holdings, Inc (CF). However, IPL is waiting for US anti-trust regulatory clearance to approve the purchase before the divestment of Waggaman can proceed. About 80% of Waggaman's ammonia is sold to other customers, with 20% used at Dyno Nobel's Louisiana plant to manufacture ammonium nitrate explosives for the US market. To secure this supply and retain the asset's strategic value, a 25-year ammonia supply agreement was secured with CF for up to 200,000 short tons of ammonia a year.

## Our services

Dyno Nobel is a leader in the commercial explosives industry and provides practical solutions and innovations that enhance safety, efficiency and reduce environmental impacts for customers. To do this we provide three key services shown below.

### THREE KEY SERVICES

**DynoConsult, a drill and blast consulting team offering engineering, instrumentation, software and training services.**

**Data analysis and software services to manage blasting.**

**The Quarry Academy, a seminar facilitated in the USA in partnership with Sandvik Mining and Rock Solutions. The three-day seminar looks at efficiency options and areas for improvement in systems integration, economic sustainability, cost reduction and safety.**

# Our Dyno Nobel Operations

**Incitec Pivot Limited**
- ★ Company Headquarters

**Dyno Nobel**
- ■ Corporate Office
- ● Manufacturing/Distribution
- ○ Emulsions
- ◉ Initiation Systems
- ◑ Ammonium Nitrate
- ▲ R&D Laboratories

# How we create value

## Operating environment

### Megatrends

- Transition to a low carbon economy
- Technology and innovation
- Supply chain resilience
- Future of work
- Broader stakeholder awareness of ESG

## Our business

### Purpose

To unlock the potential in the Earth to help people grow

### Strategy

Be the global leader in explosives solutions for critical resource extraction through providing our customers with technology-led products and services for increased productivity, safety and sustainability.

### Strategic objectives

- Manufacturing excellence
- Zero Harm
- Talented & engaged people
- Customer focus
- Leading technology solutions
- Profitable growth

## Key resources

- Natural resources
- People
- Plants & assets
- Supply chain
- Investment
- Research & Development

## Key business activities

Dyno Nobel

| Our ESG approach | Prioritised material topics | Value creation outcomes |
|---|---|---|


## ENVIRONMENTAL

**Reducing our environmental impact**

- Navigating the decarbonisation transition and reducing our GHG

### ENVIRONMENT

We are committed to reducing our environmental impact through compliance with all relevant environmental licences and regulations, increased energy efficiencies at our manufacturing facilities and the implementation of our Net Zero GHG Transition Pathway.

## SOCIAL

**Safe, diverse and engaging workplace**

- Safe, inclusive and high performance culture
- Zero Harm ambition: Safety and wellbeing

### EMPLOYEES

To enable our people to deliver a sustainable and successful future for all stakeholders, our 'People First' Strategy is designed to support an agile workforce, a diverse and inclusive culture, and a workplace with 'Safe Ground' that offers physical and psychological safety, and Zero Harm for everyone, everywhere.

**Reciprocal partnerships with customers and suppliers**

- Customer partnerships
- Innovation in responsible and sustainable products and services
- Sustainable supply chain

### VALUE CHAIN: CUSTOMERS AND SUPPLIERS

Extreme weather events, regulation, labour shortages, modern slavery risks, geopolitics and raw material sourcing have introduced complexity into supply chains. We work to build mutually beneficial relationships with our customers and suppliers to overcome these challenges and unlock the potential in the Earth to help people grow.

**Relationships with our communities that build trust and resilience**

- Community safety, support and connection

### COMMUNITY

We foster long-term and meaningful relationships with local communities through an active and grass-roots approach to engagement, our Innovate Reconciliation Action Plan and through supporting a range of community giving programs.

## GOVERNANCE

**Good governance that drives sustainable returns**

- Industry and government collaboration on green technology towards Net Zero
- Technology as an enabler and a disrupter
- Active engagement in ESG issues
- Regulatory risk management

### SHAREHOLDERS

Our innovative technology products are driving business growth as our customers look to improve productivity and safety while reducing their environmental footprint. This, along with our commitment to the highest standard of corporate governance and our focus on integrating ESG opportunities and risks into our business strategy, underpins the delivery of sustainable shareholder returns.

# Environmental Topics

**We are committed to reducing our environmental impact through compliance with all relevant environmental licences and regulations, increased energy efficiencies at our manufacturing facilities and the implementation of our Net Zero GHG Transition Pathway**

## Navigating the decarbonisation transition and reducing our GHG

The global demand for minerals necessary for the development of clean energy technologies is forecast to double or even quadruple by 2040[1]. Similarly, climate-driven scenarios show mineral demand for use in electric vehicles and battery storage is expected to grow at least 30 times to 2040[2]. With the energy transition driving the volumes of minerals needed, the global market for ammonia is poised to triple in the coming decades. Nearly all the growth is expected to come from low-carbon ammonia supply[3] and global green ammonia is predicted to reach US$5.4bn by 2030. These trends present significant opportunities for Dyno Nobel to deliver quality explosives and blasting agents that enable customers to extract the minerals needed for a low carbon economy.

To assist the transition to a low carbon economy we have set ambitious decarbonisation targets for our manufacturing assets. Dyno Nobel is also committed to leading technology solutions that assist our customers in reducing their environmental impacts, including their GHG emissions. See **Products that reduce customer emissions** on page 38.

We believe our products and services will be even more important in a future impacted by climate change as we help our customers drive the development of future-facing commodities required for the transition.

### Reducing our operational GHG emissions

IPL's investment in decarbonisation has seen the Company allocating between A$100m and A$120m through until 2030 in projects globally. Dyno Nobel has established a pathway to reduce operational emissions (scope 1&2) by 42% by 2030 against our 2020 baseline through the following projects:

**» Moranbah Tertiary $N_2O$ Abatement Installation**

In 2021, after strategic investigations, IPL approved the installation of tertiary $N_2O$ abatement at Moranbah. In 2023 we invested A$6.3m to progress the project, with installation targeted for the first half of 2024. Once installed, around ~200,000 $tCO_2e$ will be abated annually at Moranbah, which will equate to an 11% reduction in Dyno Nobel's operational GHG emissions against its 2020 baseline[4].

**» Louisiana, Missouri (LOMO) $N_2O$ Abatement**

Currently, LOMO is Dyno Nobel's only nitric acid plant without nitrous oxide ($N_2O$) abatement already installed. For this reason, Continuous Process Emissions Monitoring (CPEM) technology was installed in 2021 to allow for a more accurate 2020 baseline to be established. During 2022-23, this testing confirmed that the measurement is fully calibrated and resulted in a slight restatement of 2020, 2021 and 2022 GHG emissions from this source. The project passed through Front End Loading (FEL) stage in 2023, with A$2.8m invested in progressing tertiary abatement. Once installed, ~550,000 $tCO_2e$ would be abated annually at LOMO. This will decrease Dyno Nobel's operational GHG emissions by 30% against its 2020 baseline[4].

**» Sale of the Waggaman, Louisiana (WALA) ammonia plant**

During 2023, a Front End Engineering Design (FEED) study was completed for a proposed Carbon Capture Facility (CCF) at WALA to enable Carbon Capture and Sequestration (CCS) of the pure stream of $CO_2$ created during the ammonia manufacturing process. Commencing in 2022, the CCS project includes selection of a partner with the expertise to transport and permanently geologically sequester the $CO_2$. A final partner has now been selected and is currently working through the approval process for the Class VI injection well operation.

IPL reached an agreement for the sale of WALA to CF Industries Holdings, Inc. (CF) in March 2023.

1. Australian Government, Critical Minerals Strategy 2023-2030.
2. International Energy Agency, The Role of Critical Minerals in Clean Energy Transitions. The rapid deployment of clean energy technologies as part of energy transitions implies a significant increase in demand for minerals.
3. S&P Global, Ammonia Market to Triple by 2050 with nearly all growth coming from low-carbon supply.
4. The Dyno Nobel 2020 baseline has been adjusted for the anticipated sale of the Waggaman, Louisiana plant.

The divestment of WALA remains subject to US anti-trust regulatory clearance and the completion of other customary closing conditions. Under the terms of the sale agreement, these conditions must be satisfied within 24 months of execution of the agreement. As a result of the sale agreement, and in line with best practice, Dyno Nobel's 2020 GHG baseline will be reduced by the tonnes of $CO_2e$ that the WALA facility contributed to our operational GHG in 2020.

CF Industries has announced that it anticipates implementing the CCS project at the site on an accelerated timeline, supporting Louisiana's and the US climate goals. We are continuing to work on implementing the CCF and are assisting CF to bring the project to completion, which would reduce $CO_2$ emissions from the plant by ~800,000 $tCO_2$ per annum. The currently targeted commissioning date of the CCF facility is in 2026. For more detailed information, please refer to page 21 of the **2023 IPL Climate Change Report**.

## Developing solutions to decarbonise other industries

Dyno Nobel has a core competency in the manufacture, storage and transportation of ammonia and is well placed to play a role in developing green hydrogen and green ammonia for a low carbon economy. To advance this ambition, Dyno Nobel is working with a range of firms and agencies around the world who are focused on green energy, green ammonia and green hydrogen. Read about our partnership with Keppel Infrastructure Holdings Limited (Keppel Infrastructure) in the Governance Topics section under 'Industry and government collaboration on green technology towards Net Zero' and see the **2023 IPL Climate Change Report**, page 22 for the ways in which green ammonia can be used to decarbonise other industries and energy systems.

## Products that reduce customer GHG emissions

A key pillar of our Leading Technology Solutions strategy (see page 46) is to help our customers reduce the environmental impacts, including GHG emissions, from the use of our products. We do this through continual technological innovation in product and service development. To deliver targeted innovations that meet customers' needs we maintain a continuous dialogue through strategic partnerships, welcoming customer feedback and providing solutions for customer challenges. Our DeltaE product is one such example. This technology helps our mining customers reduce their GHG emissions, NOx emissions, dust, vibration and noise, while improving safety, efficiency and productivity.

Dyno Nobel has also integrated Scope 3 GHG emissions management into its business strategy. As part of investigating Science Based Targets during 2022, we improved our Scope 3 GHG reporting and management through engaging a specialist third party to review our global GHG inventory, including our Scope 3 calculation methodology. During 2023, we continued to work across our business units to develop the next steps in our Scope 3 management strategy framework. Please refer to the **2023 IPL Climate Change Report**, pages 26 and 27 for detailed insight into Dyno Nobel's Scope 3 emissions profile and reduction strategies. We now have our Scope 3 GHG sources fully mapped throughout our value chain and by FY25 aim to have systems in place to track and manage Scope 3 as effectively as we track and manage other supplier and customer information.

## DeltaE improving our customers' safety and greenhouse gas emissions

Differential Energy (DeltaE) is a proprietary explosives method which allows blasters to accurately vary the density, and therefore the energy, of the emulsion explosive as it is being loaded into the blast hole. This enables the operator to load variable energy segments to match the unique geological characteristics present in the ground. This facilitates the most efficient use of energy to blast the rock, reducing the overuse of explosives that occurs with a set density. The use of DeltaE continues to result in reduced NOx emissions, reduced energy use and GHG, and less dust, noise and ground vibration.

In collaboration with mining customers, Dyno Nobel has undertaken investigations to study the impacts of DeltaE. For example, a **surface molybdenum mine in the US** found that by switching to Differential Energy with TITAN® 1000 DeltaE, it was able to improve safety, air quality, productivity, fragmentation, and dig-ability. The technology enabled the mine to redistribute the explosive energy in the borehole, putting energy where it was needed by varying the detonation pressure, while using a single truck to load both wet and dry holes.

Up to this point, fragmentation, oversize, and hard toes had all been occasional issues for our customer.

During the 2022 calendar year, data was collected at a customer mine site following a switch from a standard bulk product (T5060) to using DeltaE. Data collected from 1 January to 31 December 2022, along with data from the 12-month period before the switch was initiated, allowed us to quantify and independently assure the GHG reduction associated with the use of DeltaE at this site, in comparison with the T5060 product that had previously been used.

The data showing the use of T5060 during the 12 months before the switch was initiated was used to inform the calculation of GHG emissions had the switch to Delta E not been made, thereby establishing a baseline.

The emissions for Delta E were 810 $tCO_2e$ and would have been 873 $tCO_2e$ had T5060 continued to be used. This is a reduction of 63$tCO_2e$ which has been subject to **Limited Assurance**. This is a reduction of 7%[1]. See our calculations explained **here**.

1. The GHG reduction was expected to be 25% as calculated by Dyno Nobel using the standard formulation of ANFO for the 12 months prior to the switch to DeltaE. However, it was discovered that 50% less diesel than the standard ANFO blend had been used for the 12 months prior to the use of DeltaE at this site, which reduced the baseline GHG. Had the standard ANFO blend been used in the period before the switch to DeltaE, the reduction in GHG would have been 25%. See our calculations explained **here**.

## Autonomous and electric MPU trucks to boost safety and efficiency and reduce GHG

Mobile Processing Units (MPUs) are heavy vehicles used in mining operations to manufacture or blend bulk explosives at customer blast holes. Since 2021, Dyno Nobel has been developing and testing semi-autonomous MPUs. These units were designed and built in-house, and in 2022 were deployed to customer sites for field trials. Importantly, autonomous MPUs have the potential to take operational people away from hazardous mining locations, such as under steep high walls where there is a risk of falling rocks.

The next step was to design and build the very first electric MPU, complete with its own solar charging station. Designed last year, the prototype electric (eMPU) chassis was assembled this year and is designed to carry DeltaE. It has a 350kWh battery onboard and is recharged using a 650kWh battery charging station which can draw power from solar and wind generation at the customer mine site.

Power is optimised by regenerative braking, which uses the onboard motor as a generator as the fully loaded truck descends to the mine and uses the brakes. Once the explosive product is loaded from truck to boreholes, the truck is lighter and uses less power to return uphill for reloading.

After road testing, the eMPU will have the chemical processing unit fitted on the back and the unit will be ready for delivery and use. As per our other MPUs, the eMPU's explosives delivery function is controlled by our Universal Control System and can automatically collect and display loading data into our Nobel Fire App. The application of DeltaE™ through the eMPU will bring GHG reductions and improvements to safety and efficiency at our clients' sites. This is another demonstration of our commitment to delivering practical innovations that improve our client's operational processes and help them achieve their sustainability goals.

### Installing solar and fuel cells to reduce grid electricity

Building on the 99kW rooftop solar project installed at our Helidon Initiating Systems (IS) manufacturing site in Australia, Dyno Nobel's Wolf Lake IS manufacturing site was accepted into the 2023 Illinois Shines Block Grant Incentive Program for a 500kW solar project. Construction began in late 2023 with the project expected to reduce up to 50% of purchased electricity and 340 $tCO_2e$ annually.

At our Simsbury IS manufacturing site, a fuel cell installed last year has replaced 85% of the site's purchased electricity while providing redundancy, savings and GHG reductions. Fuel cell generation versus grid purchase reduces NOx and $SO_2$ emissions by 99% and reduces $CO_2e$ emissions by ~22%.

## Reducing our environmental risks and impacts site-by-site

In 2023, there were no Significant Environmental Incidents. Our performance across consequence 4+ environmental incidents has significantly improved in 2023. Over the past three years Dyno Nobel has been working to standardise our environmental compliance procedures. We have mapped out our existing business processes and systems to make sure they reflect a standardised approach across the business and support the refreshed globalised performance requirements. This work helps us increase employee awareness of our environmental obligations and improve how we manage those obligations. An important part of this enhanced process is the use of new iAuditor software to manage environmental inspections at our sites. While the software has been well integrated into DNAP, we are continuing to roll out iAuditor across DNA and are pilot testing the application beyond manufacturing operations, across the sales, service and distribution functions of our commercial business. iAuditor is an iPad-based software that enhances monitoring of environmental risks and controls, and enhances visibility and accountability through photo reports. The system helps to simplify and standardise the inspection process and delivers more transparency to key stakeholders.

To improve environmental performance, ensure resource efficiency and reduce waste at our Carthage, Missouri Initiating Systems manufacturing facility we acquired ISO 14001 certification for its environmental management system in 2022. ISO 14001 is an internationally agreed standard that sets out best practice requirements for an environmental management system.

## Where water is a material issue

Most of our Dyno Nobel manufacturing sites which use high volumes of cooling water are located close to rivers in the US where water supplies are plentiful, and water is extracted under EPA licence. However, we have undertaken proactive measures to reduce water risks at two water-sensitive manufacturing sites.

In 2023, we installed a reverse osmosis plant at our Moranbah ammonium nitrate manufacturing facility in Queensland to better manage water and reduce environmental risk. In 2018, we identified the potential risk of pond overflow at the site, which could result in an uncontrolled release of contaminants into the local area and water table. Extreme weather patterns in Australia, including intense rainfall events and flooding over the past two years, have highlighted the site's vulnerability to potential water damage. The reverse osmosis plant was installed as a precautionary action, demonstrating our proactive approach to meeting our environmental licence conditions and reducing environmental risk.

At our ammonium nitrate manufacturing facility at Cheyenne, Wyoming, water resources are of particular concern and water management involves multiple stakeholders. The site is located in a semi-arid area which the WRI Water Tool has identified as an area of high baseline water stress[5]. Water for the site is drawn from an underground aquifer which is recharged each year by precipitation, including snowmelt. We engage with key stakeholders including the Wyoming State Engineer's Office (SEO) which manages stakeholder access to the aquifer and maintains databases for ground water levels, along with the Ground Water Division of the US Geological Survey. The site monitors wells through totalising flowmeters and water level measurements and reports to the SEO annually.

5. The WRI Aqueduct Water Tool identifies 'Baseline water stress' by measuring the ratio of total annual water withdrawals to total available annual renewable supply, accounting for upstream consumptive use. Higher ratings indicate more competition among users, with 'High' being 40-80%.

Water saving initiatives at the Cheyenne site include:

- The monitoring and maintenance of steam traps and condensate systems to reduce water loss.
- Operation of a brine concentrator unit which recycles approximately 100 gallons of water per minute.
- A new reverse osmosis (RO) water treatment unit was purchased in 2020 with 186,386 kL of wastewater recycled in 2022 and 200,236 kL recycled in 2023, for reuse via the RO unit and a vapour recompression unit.
- Communication to personnel through daily reports to watch for, and prevent, excess water from running.
- Visual management board for water reduction projects and efforts.
- The position of a focused Improvement Engineer to implement an overall strategy of increasing the recycling of wastewater streams and reducing wastewater volumes. Our water use and discharge are reported on page 43.

### Water and Waste

During the year under review, we conducted waste analyses in our initiation systems business across two sites and two processes to assess exactly where waste streams occur. This analysis included water use, energy use and waste generation. As a result, these sites now have action plans to reduce waste and aim to roll these insights into other plants and processes as applicable.

### Water use and discharge

In 2023, Dyno Nobel withdrew 26,572 megalitres (ML) of water, a 5% increase on 2022. Over 92% of that water was surface water taken from rivers in the US. Our water discharge was 26,572 ML, a 9% decrease on 2022. More than 95.2% of the water discharged was clean water, reducing our water use to 11,223 ML.

### Increasing the recycling and reuse of solid waste

In 2023, Dyno Nobel reduced solid waste by 34%, generating 3,411 tonnes of solid waste compared to 5,187 tonnes in 2022. Construction work at two of our sites included the removal of 3,715 tonnes of contaminated soils which were sent to landfill, and which have not been included in this total. Over 2023, we sent 1,433 tonnes of sorted wastes for recycling, 34% less than last year. This is mostly due to changes in our maintenance schedules year on year, which change the amounts of steel and other metals we can send for recycling. We produced 199 tonnes of hazardous waste in 2023, slightly more than in 2022.

In 2024, we plan to integrate the recycling of our WPP bags into the Big Bag Recovery Program through our Port Hedland facility. See the following page for more details.

### Liquid waste

In 2023, Dyno Nobel sites generated 15,388 kilolitres (kL) of liquid waste. This includes 10,255 kL of water from our Initiating Systems manufacturing sites in the US which is sent to an off-site water treatment plant. This has been included in our liquid waste reporting, rather than 'discharge' reporting, for the first time in 2023, as it is sent off-site as a waste for treatment before being discharged to sewers by the third party. This has increased the total liquid waste reported against the 4,926 kL reported in 2022. Of our total liquid waste reported, 27% was sent for recycling.

## Reusing explosives residues from Initiating Systems manufacturing

Dyno Nobel is testing a hazardous waste reduction initiative at the Graham, Kentucky Initiating Systems manufacturing site, where explosives residues from the manufacturing process will be collected and reused in producing boosters at our Carthage, Missouri site. The residue material is being collected from clean-up, off-spec and other sources across the Graham facility. With internal applications for testing approved, Dyno Nobel is now trialling the reuse of these residues to make Spartan 350 boosters for use in detonation testing. The initiative has the potential to reduce hazardous waste by 35,000 pounds and annual costs by around US$400k-500k.

## Oil recycling cuts costs and benefits the environment

To reduce waste in mining operations, Dyno Nobel encourages customers to reuse waste oil as a raw material, promoting circular economy principles. To facilitate the reuse of these oils we work with a range of partners that reprocess operational waste oils. Internal quality and efficacy validation of the waste oil treatment process allows our customers to supply these waste oils to us at their sites, rather than dispose of them, so that we can incorporate them safely and efficiently into our products.

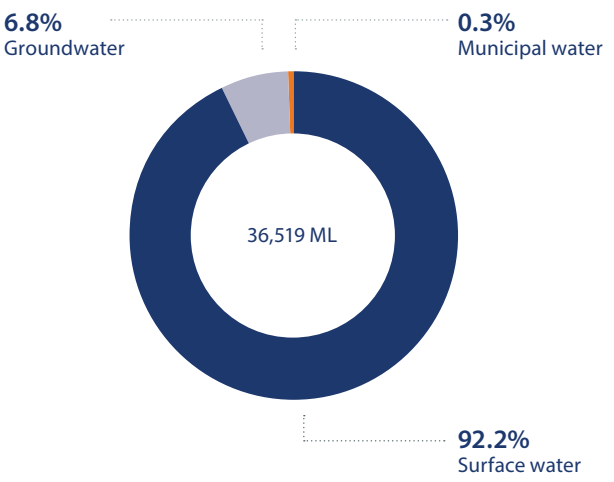
This initiative improves environmental outcomes by reducing demand for virgin oils and eliminating the storing, handling or shipping of used oil to a third party for refining or disposal. Savings achieved through this approach can include a reduction of up to 50% of diesel use in ANFO. This delivers an immediate reduction in blasting costs to mining customers. The technology has been integrated into the daily operations of many Dyno Nobel customers across Asia Pacific and the Americas.

## Introducing AN bag recycling at Port Hedland in Western Australia

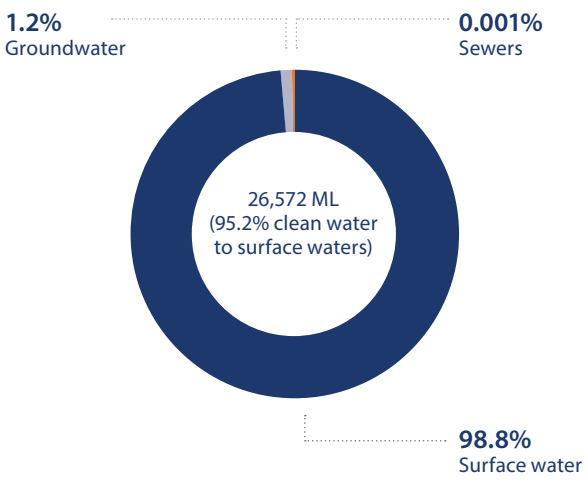
Dyno Nobel is committed to incorporating circular economy principles into our operations wherever possible. Following IPL's fertiliser business, IPF, we have made plans to send our one tonne ammonium nitrate (AN) woven polypropylene (WWP) bags for recycling. IPF was instrumental in setting up the Sugar Cane Fertiliser Bag Recovery Trial in 2015. This developed into the Farm Waste Recovery initiative which became Big Bag Recovery, the Australian Government Accredited Product Stewardship scheme for plastic bags over 15kg/l of contents. As part of this initiative Incitec Pivot Fertilisers has been recycling its one tonne and 25kg fertiliser bags made from woven polypropylene (WPP) in eastern Australia for many years.

In Western Australia, Dyno Nobel buys and supplies AN in one tonne WPP bags. However, it has been difficult in the past to find recycling options for these. In 2024, we plan to integrate the recycling of our WPP bags into the Big Bag Recovery program through our Port Hedland facility. Inclusion of Dyno Nobel's AN bags into the Big Bag Recovery scheme is expected to allow us to recover and recycle 387 tonnes of waste plastic in 2024, more than doubling our recycled plastics against 2022 volumes. Recycling this packaging waste will also avoid an estimated 580 $tCO_2e$ in GHG and preserve valuable landfill space for our communities. The photograph above shows Dyno Nobel AN bags being run back to pellets at the BBR trial process facility in New South Wales.

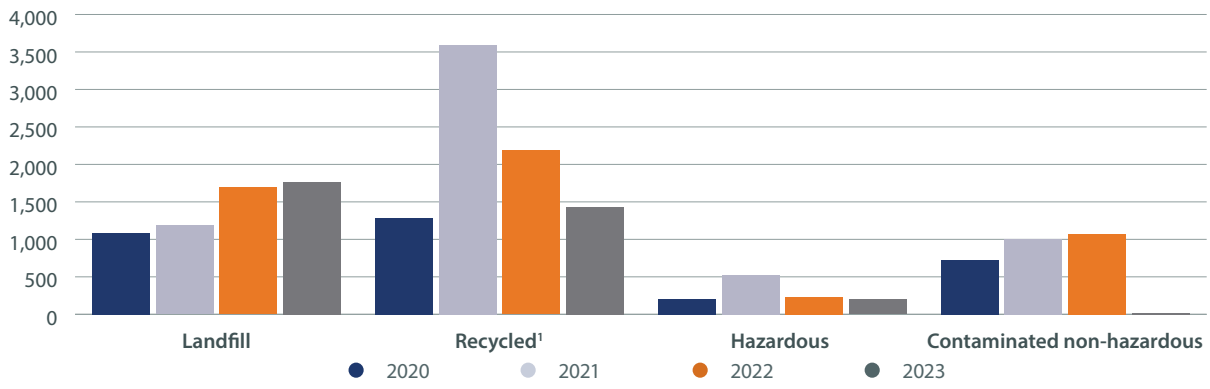
## Dyno Nobel water withdrawal by source (ML)




## Dyno Nobel water discharge by destination

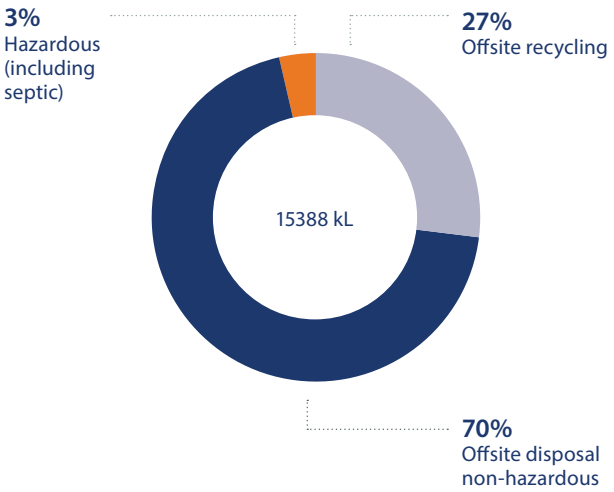



## Dyno Nobel solid waste (metric tonnes)




1 Dyno Nobel recycled less waste in 2022 compared to 2021 because we have reduced the total volume of solid wastes created across the business in 2022 compared to 2021.

## Dyno Nobel liquid waste by destination (kilolitres)



# Social Topics

**At Dyno Nobel, we have a unique relationship with each of our customers and work closely with teams on customer mining sites to deliver solutions tailored specifically to each site's needs. Our skills in R&D assist our customers with their individual challenges and are targeted to improve operational, environmental and social outcomes on-site.**

## Partnerships with customers

We have dedicated Customer Relationship Managers to harness and apply our resources and expertise to help customers solve their unique challenges. These managers work with our customers on-site to solve operational challenges and engage in collaborative problem-solving exercises. Dyno Nobel also runs technical workshops and invests in collaborative research and development (R&D) projects. These are listed in our **GRI Index and Data Supplement.**

When it comes to the challenge of reducing our GHG emissions, operating in a hard-to-abate manufacturing sector means we need to be creative and collaborate on our decarbonisation efforts. Like us, our customers in the mining sector are focused on reducing their environmental footprint and achieving their Net Zero targets. For this reason, we see our ability to innovate and provide products and services with improved efficiency, reduced GHG emissions and better environmental outcomes as an important opportunity to not only reduce our Scope 3 emissions, but also help our customers in reducing their GHG emissions.

## Innovation in responsible products and services

Our Leading Technology Solutions strategy is focused on working in partnership with our customers and innovating in ways that help them achieve their goals. To do this, we focus on delivering explosives products and services based on three pillars:

- Productivity – optimise efficiency through technologically driven automation and increase blasting accuracy.
- Sustainability – minimise over blasting and environmental impacts and reduce GHG emissions both for our customers and from the manufacture of the ammonium nitrate we supply.
- Safety – increase safety for all employees working on customer sites through innovative products and services.

Our growth strategies include expansion into new geographies where sophisticated explosive technologies such as ours are still underused.

To further advance our drive for new technological solutions, we seek regular input from our customers and industry experts. New technologies are trialled collaboratively at customer mine sites during their development. This ensures they are fit-for-purpose and will be deployed. Two such examples are DeltaE and automated and electric MPU trucks, details of which are described on pages 38 and 39.

Our technology collaboration pipeline is structured using Seven Stages, ranging from Idea Capture (Stage 1) to Commercialisation (Stage 7). New products are assessed by our Executive Technology Steering Committee who evaluate the innovations against the pillars of our technology strategy. Dyno Nobel has KPIs related to the delivery of our Technology Strategy. These KPIs are evaluated annually as part of the Board's assessment of the Executive Team. In addition, we aim to have 100% of new products improving sustainability in some way, whether by reducing environmental impacts, increasing productivity or enhancing safety.

Last year seven new products passed to our commercialisation Stage 7 with all of them providing a sustainability improvement. This year we continued to roll these products out through commercial trials, enabling customers to evaluate the improvements these products bring to their operations. The table below provides an update on each of these products in 2023 and how our 2022-23 innovations increase the productivity, safety and sustainability of our customers, which are the three pillars of our technology strategy.

## Three pillars of our technology strategy

| 2022 Gate 7 products | 2023 update | Alignment with Technology Strategy: | |
|---|---|---|---|
| | | ● Sustainability (includes productivity and safety as well as other sustainability improvements)<br>● Productivity<br>● Safety | |
| Next Generation Electronic Detonators | 2023 has seen increasing uptake of this technology | Advanced electronic detonators which allow for safer mining methods in challenging mining situations. | ● ● ● |
| Ranger Electronic Initiation System with ViewShot Lite software | Rollout and customer adoption continues | Improves safety and productivity through precise and reliable blasting in quarries and small mines. | ● ● ● |
| Alternate Sensitisation of Site Mixed Explosive (SME) | Rollout and customer adoption continues | A new mechanical gassing technology, replacing chemical gassing. It improves safety and environmental risks associated with depot and loading operations due to the elimination of the use of hazardous chemicals in the explosives sensitisation process. | ● ● ● |
| Nobel Fire software | Further upgrades have been made in 2023 to enhance the integration of blast design considerations, and a Mobile App has been released to improve record keeping accuracy and data accessibility | Supports record keeping and monitoring of blasts, improving safety, and can improve fragmentation (increased productivity) and vibration (reduces impact on surrounding communities) outcomes. | ● ● ● |
| Shock Resistant Shell and Trojan Shield | Rollout and customer adoption continues | Improves safety and productivity through reduction in misfires. | ● ● ● |
| Next Gen Reactive and Hot Ground emulsions | Rollout and customer adoption continues | Increases safety through avoidance of unplanned detonation. | ● ● ● |
| BlastWeb II | Rollout and customer adoption continues | Designed to improve safety through remote (surface) activation of precise and reliable blasting in underground mines. | ● ● |

During 2023, an additional three products passed through our technology collaboration pipeline to Stage 7 and were commercialised. Alternate Sensitisation - Repump for Quarries is a mechanical sensitisation technology which removes the use of hazardous chemicals previously used for the explosives sensitisation process. The sustainability benefits include improved safety and reduced environmental risk through the elimination of the use of these hazardous chemicals. Additional indirect sustainability benefits include reduced freight emissions and avoidance of plastic packaging.

In addition to functionality updates of our Nobel Fire digital platform, the Nobel Fire mobile app was introduced in 2023. This new app enables on-bench capture and storage of data on a mobile tablet. This improves record keeping accuracy by capturing data during the drilling, hole dipping and hole loading processes and assists with quality assurance and quality control of the blast. The third product was an update to our Nobel Fire Vibration Management digital tool. This updated tool offers enhanced vibration prediction which facilitates better decisions around blast design and timing, so that communities and critical infrastructure are less affected by blasting activities.

### Research partnership with Sydney University

In a new research collaboration with Sydney University, Dyno Nobel is looking at alternative inhibitors for high temperature, deep level mining. Inhibitors are used for blasting in reactive grounds where the chemistry of the rock can react with the explosive ahead of detonation. Current inhibitors break down at ~130°C. These new inhibitors, for which there is a patent pending, are thermally stable at higher temperatures, providing increased safety for our own employees and our customers when mining in reactive ground.

## Sustainable Supply Chain

The continued impact of the Ukraine war on access to raw materials and the long-term impacts of COVID-19 on supply chain certainty have put increased focus on Dyno Nobel's supply chain resilience this year. Global uncertainty around shipping capacities, inflation and increased commodity prices have created price risks and volatility for raw materials and the commodities we purchase. For example, the price of ammonia has shown large fluctuations during 2023 and geopolitical tensions have significantly impacted the availability of traded nitrate. Over-the-road trucking infrastructure issues, railroad logistical challenges, and import material disruptions have caused challenges in getting raw materials and commodities to our sites.

To support supply chain resilience, cross-functional teams have been working to broaden our supply network, address raw material threats and reduce reliance on single source suppliers. We are also looking at entering new markets to secure supply, and supporting 'on-shoring' initiatives that move our manufacturing input sources closer to our operating sites, mitigating transportation risks and decreasing fuel consumption.

In the US, DNA's Dyno Nobel Transportation Inc. has become a registered partner with SmartWay. The program is supported by the United States Environmental Protection Agency and helps companies improve supply chain sustainability and freight transportation efficiency. We have also improved our supply position from sole source to multi-source position by 20 basis points over the last three years. Within our DNAP business we are currently testing the application of a new supply audit platform. This platform would conduct up to five audits a year and test for supply chain risks and sensitivities.

In 2023 we extended to DNA an additional new-vendor screening requirement used in our DNAP business unit. As part of setting up any new vendors in our systems, this screening is completed using the online Dow Jones Risk and Compliance tool which screens for risks related to anti-money laundering and counter-terrorism financing, sanctions, anti-bribery and corruption, and international trade compliance.

As part of IPL's first Innovate RAP, our procurement team has worked to increase opportunities and spend on First Nations businesses, suppliers and workers in the last three years. Initiatives included the development of an Indigenous participation strategy and framework. This was designed to provide access to opportunities for Indigenous businesses and create shared and sustainable economic and social outcomes. In 2023 we were able to exceed our procurement stretch target spend on First Nations businesses by 39%.

We also become a voluntary member of the Business Council of Australia's Raising the Bar program, which aims to see members steadily increase their procurement spending with Indigenous suppliers.

The **IPL Supplier Code of Conduct** supports our commitment to a sustainable supply chain and covers four key areas: labour and human rights; health, safety and environment; corporate governance and ethics; and management systems. During 2023, 244 Dyno Nobel employees completed our e-learning module on Modern Slavery in the supply chain. In addition, to support Australian First Nations suppliers we have incorporated targets for our procurement team relating to the amount spent on goods and services from Indigenous businesses, and the number of new Indigenous suppliers engaged. In Australia, we have created a dedicated role to manage our Ethical Procurement agenda.

About 80% of the ammonia produced at our Waggaman, Louisiana ammonia plant is sold to external customers, with 20% used by Dyno Nobel to manufacture explosives for the US mining, quarry and construction markets. During 2023, a strategic review of the facility was undertaken with the objective of monetising the value of this excess ammonia production. In March 2023, IPL reached an agreement for the sale of WALA to **CF Industries Holdings, Inc.** (CF)[7]. To secure supply and retain the asset's strategic value, a 25-year ammonia supply agreement was secured with CF for up to 200,000 short tons of ammonia a year.

## Community Safety, Support and Connection

Our approach to community engagement is relationships with our communities that build trust and resilience.

As a global business Dyno Nobel is committed to being a valued corporate citizen in the communities in which we operate. We respect each community's values and cultural heritage and take these into consideration when carrying out our operations.

Our sustainable communities policy outlines our commitment to:

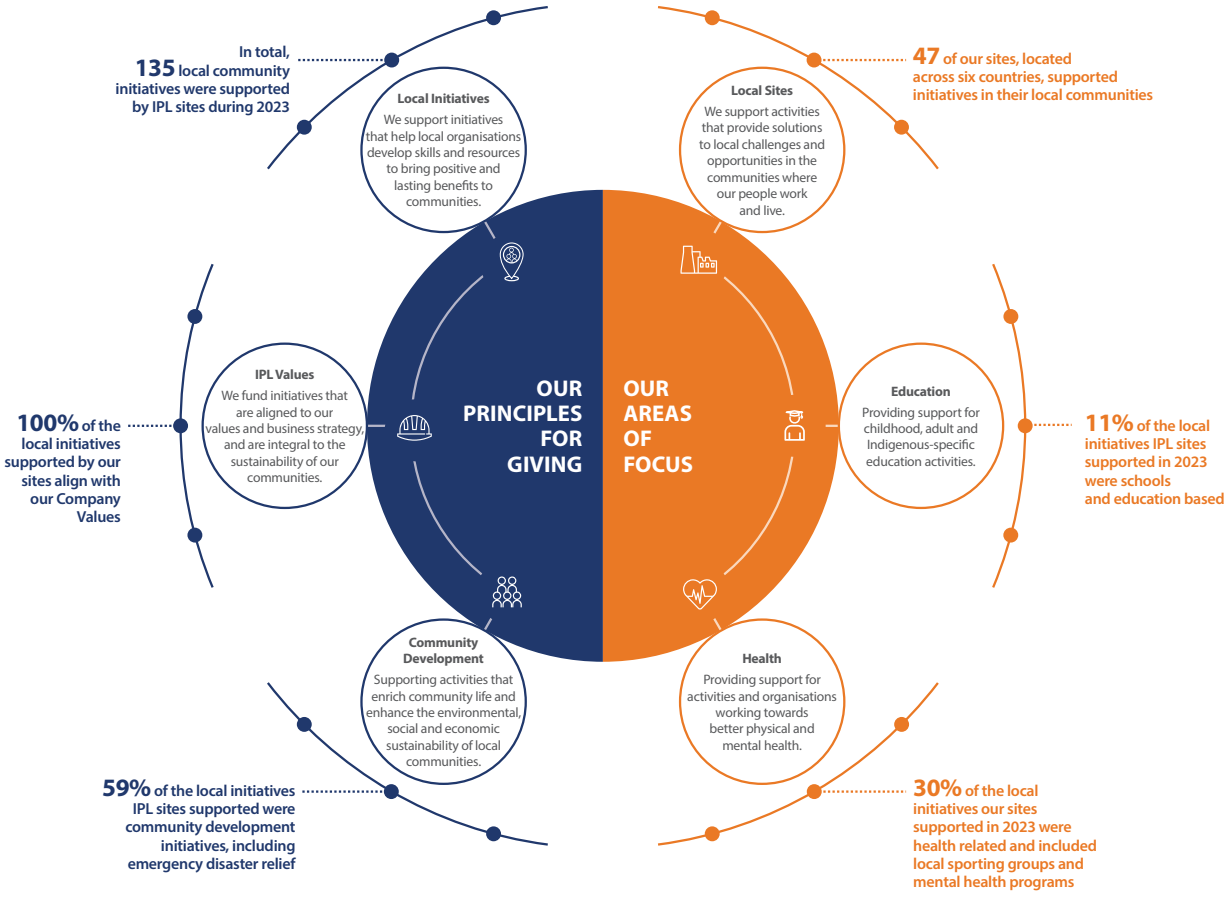
- » listen to and work with the community;
- » strive to be a valued corporate citizen;
- » respect our neighbours, their values and cultural heritage; and
- » be considerate of them in carrying out our operations.

Day-to-day responsibility for assessing our community impacts and implementing engagement programs rests with local management at each of our sites, as our site managers best understand community needs and concerns. Local priorities are informed by our Community HSEC Standard, which sets our minimum requirements for engagement.

During 2023, Dyno Nobel sites donated a total of A$544,719 through IPL's Dollar-for-Dollar program, the Australian Workplace Giving program and various site-based initiatives, including in-kind donations and employee volunteer hours. All of these were made in line with our Principles for Giving, which are part of our Community Investment Framework. This is shown on the following page along with community building highlights in 2023.

7. The divestment of Waggaman remains subject to US anti-trust regulatory clearance and the completion of other customary closing conditions. Under the terms of the sale agreement, these conditions must be satisfied within 24 months of execution of the agreement.

## IPL's Community Investment Framework




**Charlie the safety Koala**
Illustrated by Clancy Garrett & Ahliya Kyle

## Promoting Safety in Schools at Helidon

When the Helidon Dyno Nobel team chose to engage with their community at the Helidon State School Fete in 2018, there was feedback from the community who noticed their strong focus on safety behaviours. From this interaction grew an idea to share our Zero Harm safety culture with the community. Since that time, the Helidon team has engaged with safety specialists to produce and deliver safety awareness through education materials adapted for children in the local school.

The latest material, produced in 2023, introduces Charlie the Safety Koala, who asks his family and friends to focus on what they can do to stay safe and well while at work, at home and at play. It's a wonderful example of the Helidon team living out our Company Values of Zero Harm and Care for the Community.

Celebrating Children's Day at Guadalupe Victoria de Abisinia Elementary School to strengthen our relationship with the Abyssinian community in Dinamita, Mexico.

Tree planting and environmental awareness day at our Kalanchoe emulsion plant in Chile.

Following financial support, employees from our Graham, Kentucky IS manufacturing site also volunteered their time at the 'Hope to All Food Bank'.

## Community building highlights

In 2023, we have seen multiple examples of our active and grassroots approach to community engagement across the global Dyno Nobel business.

- In February 2023, South-Eastern Türkiye was struck by a devastating earthquake. Dyno Nobel is one of the largest explosives companies operating across Türkiye, with around 300 employees across the country. Whilst all our employees remained safe during the earthquake, we assisted in relocating six employees and their families, who lived in one of the affected towns. For these families, Dyno Nobel provided safe accommodation to the west of the affected area, until it was safe for them to return. To further assist those in the broader community who were affected our Dyno Nobel EMEA (Europe, the Middle East and Africa) executives and senior management team worked closely with the local authorities to support affected areas. Local employees also organised an aid package, comprised of about US$10k worth of emergency items such as blankets and warm clothing, diapers, baby food, and other basic needs.
- In Queensland, Dyno Nobel's Helidon site celebrated NAIDOC Week and reflected on Australia's shared history to support the rights and well-being of Aboriginal and Torres Strait Islander peoples. The theme for NAIDOC Week 2023 was 'For Our Elders'. Participants took time to discuss the important roles Elders have played, and continue to play, in First Nations communities.
- DNAP and DNX Indonesia employees delivered donations via Indonesia Mining Department's Disaster Post in Cianjur (West Java), Indonesia, after a 5.6 magnitude earthquake in November 2022. Our employees donated essential items, including 100 packaged tents, mattresses, blankets, 2,000kg of raw rice, and 360 packages of diapers for children in need.
- In March 2023, Dyno Nobel's Asia Pacific Hard Rock and Iron Ore teams hosted a day of fun with a purpose: a customer golf day in support of Beyond Blue Australia. About 100 participants gathered at the Vines Golf Resort in Whadjuk-Noongar country, including representatives from some of Australia's premier mining and mining services companies. Beyond Blue is one of Australia's best known suicide prevention organisations, who run dedicated programs suited to the needs of 'Fly in fly out' (FIFO) workers. In a collective effort we managed to raise over A$50k for Beyond Blue on that day.
- Our Kalanchoe emulsion plant in Chile held an environmental awareness day this year. The event drew attention to the importance of healthy soils in this dry area and explained how the soil is applied in traditional medicine practices. Using excess water from our site we planted a range of different plants which will contribute to soil health in the area.
- In an effort to strengthen our relationship with the Abyssinian community, the Dinamita Industrial Group (Dyno Nobel, Reverté, Tecnobrick and Austin Powder) carried out a joint collaboration to help children of the community celebrate Children's Day at Guadalupe Victoria de Abisinia Elementary School. The group organised recreational activities and delivered 127 candy bags for the children.
- Employees from our Graham, Kentucky site provided financial contributions to the local food pantry 'Hope to All Food Bank'. Several team members, some even accompanied by their families, went to the food bank to lend a helping hand and packaged hampers for families in need.
- Our Canada East operations donated CAD$15k to the Taykway Tagamou Nation (TNN) at Timmins in Ontario, Canada for renovations at their recently acquired Veronica Archibald Healing Centre in Wade Lake, Ontario. The purpose of the centre is to provide land-based healing through a treatment centre and community programming specifically designed for First Nations youth at risk.


# Governance Topics

## Dyno Nobel is committed to achieving and demonstrating the highest standards of corporate governance. As our 180-year history proves, good corporate governance is essential to the long-term sustainability of our business.

We know that good corporate governance, the G in ESG, drives sustainable returns and includes ensuring that ESG risks and opportunities are identified and appropriately managed by our people. It also means strategically managing our interactions with a wide range of external stakeholders, including governments, business partners, customers and shareholders.

The Board's oversight of the issues in this section, and our Governance structures, are described in the 'Our Governance' section on pages 7-9. IPL's Sustainability Steering Committee provides executive oversight of the sustainability strategy and gives direction on the management of ESG issues.

More information on our stakeholder engagement strategies is reported in the **2023 GRI Index and Data Supplement** on page 22. For more information on IPL's governance processes, controls procedures, see the **2023 IPL Corporate Governance Statement**.

Good governance includes ensuring our people have the necessary knowledge to identify and manage ESG risks right across our global business. For Dyno Nobel, the safety of our people is of utmost importance to us. We provide regular training for our employees to ensure hazardous materials and processes are handled with respect to Zero Harm for our people, our communities and the environment. In 2023 these included:

- SafeTEAMS – A behavioural based safety program building the mindsets and skillsets needed to strengthen our Zero Harm culture.
- Environmental risk management training, including trialling the use of updated iAuditor software to manage environmental inspections across our sites.
- Leadership Foundations – All of our manufacturing sites and two commercial regions have completed this training. Currently the program is being developed to support its virtual delivery in 2024.
- Site Safety Leadership – A two-day, eight-module face-to-face training program for new site acquisitions in our DNA business to ensure our commitment to Zero Harm is understood and our processes are adopted.
- Leadership Education and Development (LEAD) Program – A three-day leadership education and development program with monthly follow-up meetings for new and high potential leaders.
- Blasting Academy and Training – An education program providing an overview of Dyno Nobel's most current blasting tools, policies, and procedures, to develop a systemised approach to blasting excellence across our business. Dyno Nobel is currently investigating options to commercialise this program for delivery to customers and other external parties.
- Frontline Management Training – Specific training material targeted at frontline managers to further embed our processes and build our Zero Harm culture.
- IVMS Training – Mobile Processing Units (MPU) drivers – An educational program for the safe handling of MPUs on customer mine sites.

For information on our employee training please refer to the **2023 GRI Index and Data Supplement** – pages 4, 10, 12 and 18 to 19.

## Industry and Government collaboration on green technology towards Net Zero

Dyno Nobel is working with the Australian and Queensland Governments to explore collaboration opportunities for our shared path to Net Zero. As a business in the explosives sector, we have a core competency in the manufacture, storage and transportation of ammonia and are well placed to play a role in developing green hydrogen and green ammonia for a low carbon economy. Projects coming out of the Inflation Reduction Act in the US offer the prospect of additional partnerships on technology and manufacturing in areas such as blue ammonia, green ammonia and green hydrogen. Similarly, there are opportunities available to partner with other entities and we continue to explore opportunities by proactively identifying projects, products and partnerships that seek to align with our existing competencies and enhance our core business.

In Australia, Dyno Nobel continues to engage with Federal and State Governments to collaborate on opportunities to decarbonise our operations. We believe our efforts to achieve this demonstrate that Australia can meet its carbon commitments while keeping Australian manufacturing globally competitive, Australian jobs secure, and strengthening domestic supply chains through product and process innovation. Our engagement with government showcases our commitment to an orderly and just economic transition.

Our just transition approach seeks to protect and sustain the employment opportunities we provide and, in turn, the communities which depend on these opportunities.

A high-level assessment indicates that our portfolio is resilient in terms of just transition risks, with just one facility, employing 177 personnel, identified during the assessment as having a potential risk due to its servicing of thermal coal markets. While IPL's exposure to thermal coal markets made up less than 5% of our revenues in 2023, this exposure is almost entirely associated with this single Dyno Nobel manufacturing asset in Cheyenne, Wyoming which currently supplies ammonium nitrate explosives to the nearby Powder River Basin. Demand from this market has already declined and this is being managed through further expansion into the quarry and construction and metals markets. Please refer to page 15 of our **2023 Climate Change Report** for a more detailed explanation of how Dyno Nobel is managing this risk at our Cheyenne site.

### Partnering with Keppel Infrastructure on green hydrogen production

In 2021, we signed a memorandum of understanding (MOU) with Keppel Infrastructure to investigate the feasibility of producing green ammonia at industrial scale in Queensland and New South Wales, Australia for global export. In 2023, Keppel invested in the CQ-H2 Central Queensland renewable hydrogen project at Gladstone. Based on using green hydrogen offtake from the CQ-H2 project, we signed a second MOU with Keppel to explore the construction of a world-scale green ammonia production and export facility at Gladstone. The facility would be capable of producing up to 850,000 tonnes of green ammonia per annum for both domestic and overseas consumption, and establish an export supply chain to Singapore and Asia.

If it proceeds, this project will allow Dyno Nobel to enter the emerging ammonia energy sector with Tier 1 partners and provide business growth that is unconstrained by carbon emissions. It also provides a potential pathway to decarbonise the Moranbah ammonia plant, reducing IPL's reliance on natural gas for ammonia manufacture.

## Technology as a disruptor and an enabler

Technology is a key commercial differentiator for Dyno Nobel and the technology advancements we achieve are often the result of partnerships with our customers. We are seeing evidence every day that this approach also delivers innovation that improves sustainability outcomes. Indeed, we are strategically focused on delivering products that improve on multiple metrics – productivity, efficiency, safety and reduced environmental impacts. Our technology strategy and innovation in sustainable products and services are described on pages 45 to 46.

## Active Engagement in ESG Issues

Dyno Nobel is committed to actively engaging with our stakeholders to manage our ESG issues. IPL's Board met regularly during 2023 to review the effectiveness of our strategy and business processes with respect to their impacts on the economy, environment and people. We value feedback from our stakeholders and provide regular opportunities to source this through employee surveys, customer relationship managers, supplier questionnaires and investor briefings. In addition, the Audit and Risk Management Committee of the Board received briefings during 2023 on IPL's identified ESG risks and provided direction and feedback to management regarding these risks.

In 2022, IPL became a signatory to the United Nations Global Compact (UNGC). This year has seen our first report against our progress in implementing the UNGC's 10 Principles on human rights, labour, environment and anti-corruption. We are also participating in the Global Compact Network Australia's (UNGCNA) Modern Slavery Community of Practice (CoP).

## Regulatory Risk Management

The global environmental, social and governance landscape is rapidly evolving. The new disclosure standards IFRS S1 and S2 issued by the International Sustainability Standards Board (ISSB) in June 2023 show the importance of governance structures that monitor and manage sustainability-related risks and opportunities. Contributing to our broader society, supporting the communities we work in and protecting our natural environment as we grow sustainable shareholder returns has never been more important.

As a responsible corporate citizen we see complying with relevant laws and regulations as a non-negotiable priority. For Dyno Nobel – which works across multiple jurisdictions – this requires highly trained employees and high-quality processes. Our business works to ensure it has systems in place to both understand our regulatory obligations and to execute against those obligations.

We ensure our people are equipped to track proposed and new regulations and assess how they might impact our industry and our operations. The Precautionary Principle is also built into our self-assessment. One example is our internal site inspection process, where we look for potential as well as current environmental impacts. To enhance our regulatory risk management effort, Dyno Nobel works with specialist providers who give us an additional layer of insight.

This level of commitment to regulatory risk management is necessitated by the layers of regulation in many of our jurisdictions – such as Federal legislation in the US and State rules in its 50 States. The provider analyses both proposed bills and changes and updates to extant legislation.

Dyno Nobel also participates in trade and industry organisations such as the IME (Institute of Makers of Explosives). These professional and industry connections are important to our regulatory risk management, and we ensure that key employees across our business, who are closest to our customers and markets, are kept abreast of regulatory developments.

In 2023, our DNAP business implemented a new Environmental Steering Committee in Australia. In a monthly meeting plant managers and key environmental staff come together to discuss emerging environmental risks and make sure risk response processes and plans are up to date.

### Regulatory infringements

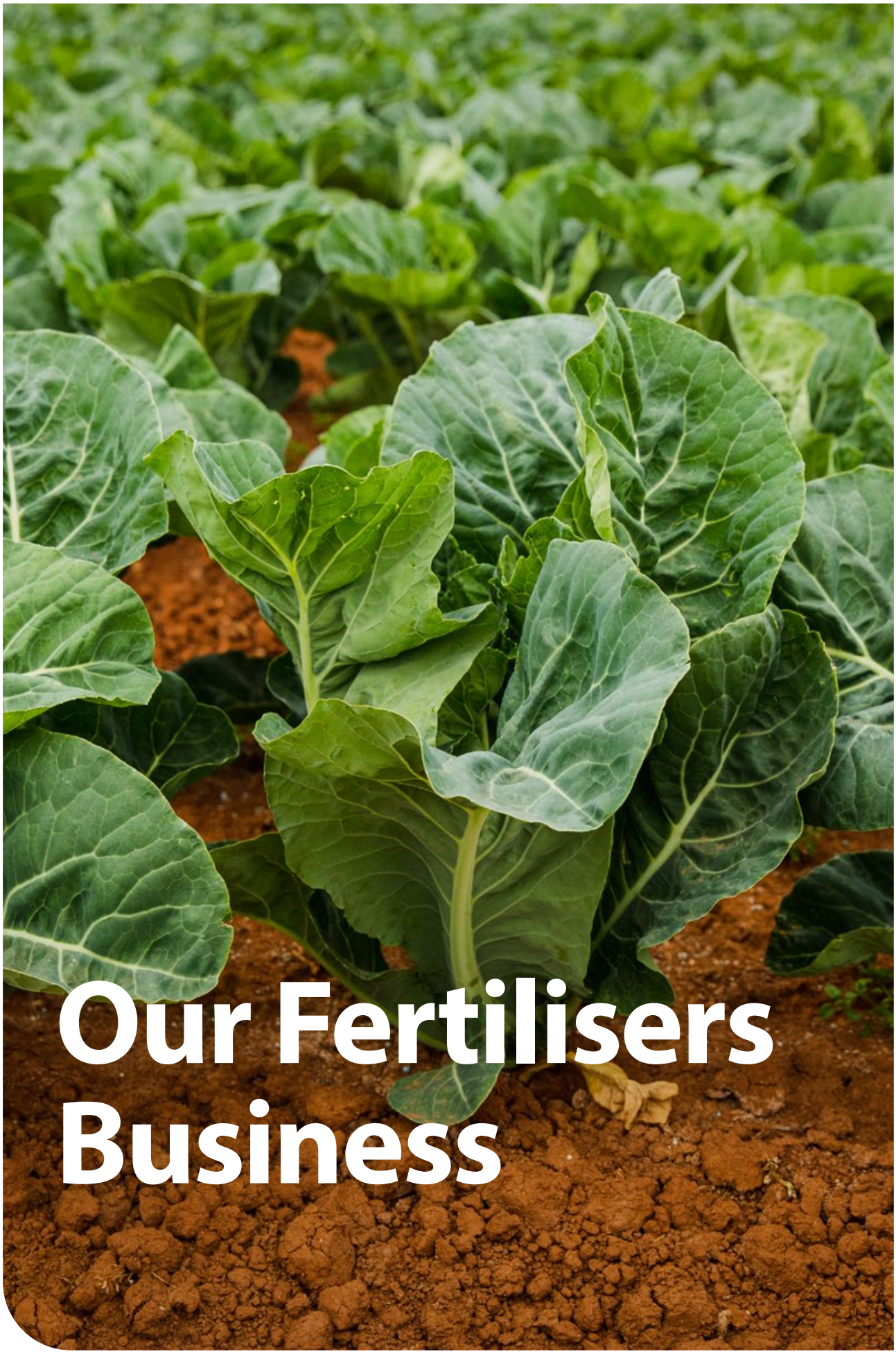
During the 2023 financial year, Dyno Nobel received five fines for instances of non-compliance with laws or regulations.

A fine of US$394,906 was received at our Cheyenne Wyoming operation for failing to comply with certain process safety and mechanical integrity requirements of the Clean Air Act. The payment of this fine will not occur until rectification actions have been finalised under an associated regulatory order. These are expected to be completed by the end of December 2023. A related fine of US$20,352 was received for failing to provide a written follow-up as required under the relevant legislation, after having provided immediate notification of two separate and minor ammonia releases in 2019. To ensure accurate and timely future reporting, the plant created reporting flow charts and an NRC reporting form to instruct users in reporting requirements and documenting the nature of releases or spills, including when notifications were made to appropriate authorities.

Three other fines were received in the US: a US$20,000 fine from the Federal Railroad Administration for release of ammonium nitrate liquid during transportation; a US$5,000 fine from the Federal Railroad Administration for a broken securement latch on an ANSOL tank car that was improperly secured with a security seal attached to the chain; and a US$4,788 fine for the release of reverse osmosis water without a permit in place.

## Adjusting our process for identifying common environmental risks

In 2023, our DNA business adjusted the process for identifying common environmental risk events for all our sites. The standardised assessment screens sites for common environmental risk events. If a site identifies a common risk, the standard Bowtie diagram is used to visualise the risk for regional and site managers. Conducting risk workshops allows regional and site managers to adopt the risk event into the site's risk register and perform ongoing control management. Following multiple workshops with the broader DNA Environment Team, the Top 5 Common Environmental Risk Events have been identified and defined, with workshops including a review of existing Risk Registers and Aspects and Impacts Registers. The new process increases reporting and visibility of common environmental risks at sites and allows decision makers to observe trends over time.



# Our Fertilisers Business

## Incitec Pivot Fertilisers' long history in the Australian fertiliser industry goes back over 100 years, demonstrating its resilience through variable weather conditions, and agricultural and economic cycles.

Incitec Pivot Fertilisers (IPF) is IPL's fertilisers business. Operating across Eastern Australia, it is one of the largest domestic manufacturers and suppliers of fertilisers by volume. During 2023, a range of fertilisers were produced from its strategically positioned manufacturing facilities including the ammonium phosphate fertiliser plant at Phosphate Hill, complemented by the world-scale sulphuric acid plant at Mt Isa, the Geelong Single Super Phosphate (SSP) manufacturing plant, and the Gibson Island ammonia manufacturing plant. Natural gas based manufacturing of ammonia ceased at Gibson Island this year after exhaustive, but ultimately unsuccessful, efforts to secure an affordable long-term gas supply. The project to convert this site to green ammonia production is being actively progressed toward a final investment decision.

IPF's distribution network includes more than 20 Distribution Centres and stretches from Cairns in North Queensland down the eastern and southern Australian coasts to Port Lincoln in South Australia. These include three EASY Liquids sites based in Boundary Bend, Moree and Whitton, providing a wide range of liquid fertilisers to key agricultural markets close to these distribution points.

Internationally, IPF sells to major offshore agricultural markets in Asia Pacific, the Indian subcontinent, Brazil and the United States. IPF also procures fertilisers from overseas manufacturers to meet domestic seasonal peaks for its customers' diversified crops.

# Our Incitec Pivot Fertilisers Operations

**3**
Manufacturing facilities

**1**
Soil and plant testing laboratory

**18**
Primary Distribution Centres (PDCs)

**9**
Export regions

**>800kt**
Fertiliser storage

**>1.3mt**
Produced

**39%**
of east coast fertiliser market supplied

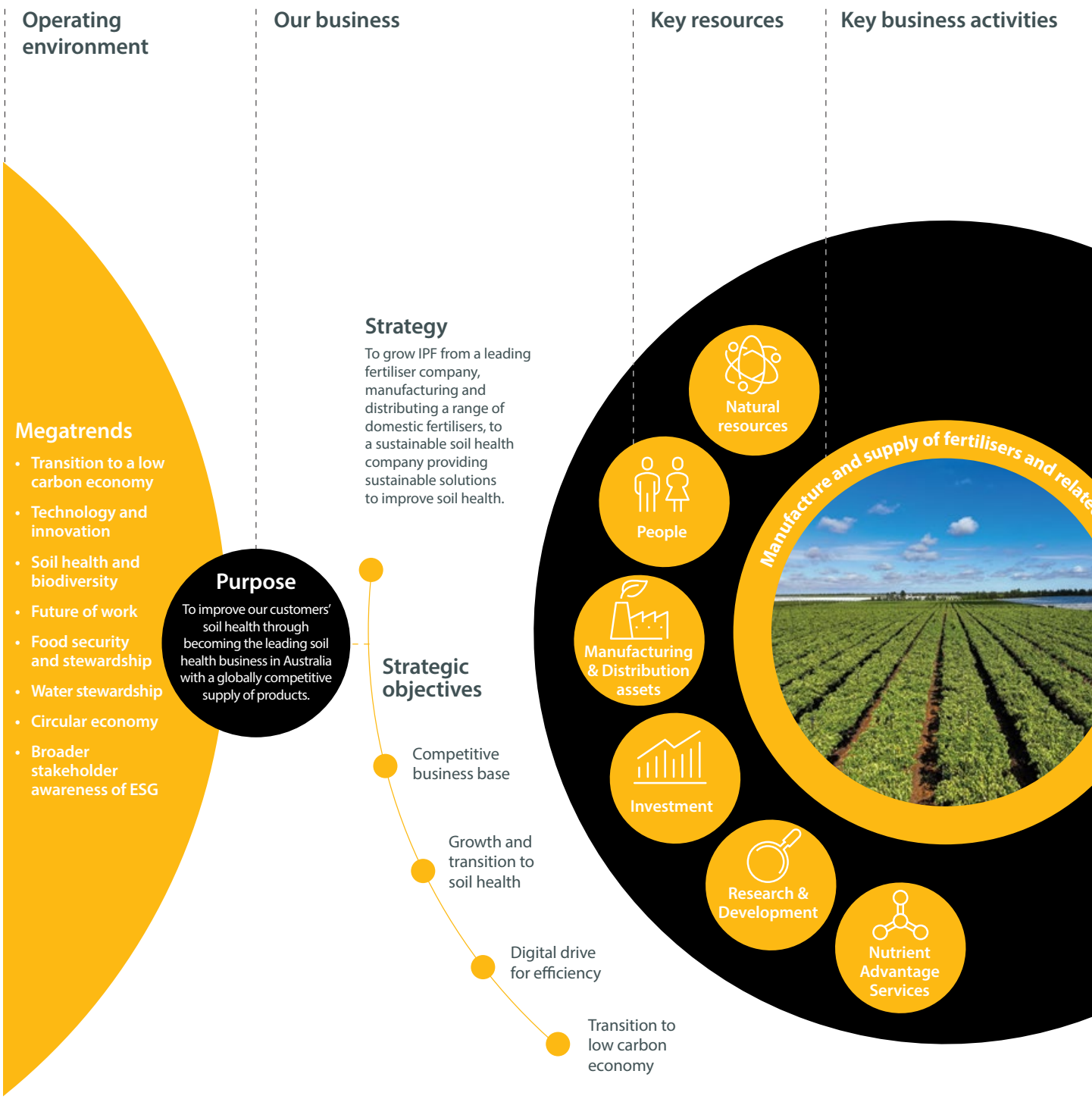
**>2.7mt**
Distributed

**Incitec Pivot Fertilisers**

- Primary Distribution Centres
- Regional Service Centres
- Regional Offices
- Soil and plant testing laboratory
- Manufacturing site
- Headquarters


Export globally
Supply Australia
Townsville
Cairns
Mackay
Mt Isa
Phosphate Hill
Bundaberg
Gibson Island
Moree
Newcastle
Griffith
Port Kembla
Whitton
Boundary Bend
Werribee
Melbourne
Oyster Cove
North Shore
Geelong PDCs
Port Pirie
Port Lincoln
Wallaroo
Adelaide PDCs
Gillman
Port Adelaide
Portland
Geelong
Circular Head
Scottsdale
Devonport
Longford

# How we create value



## Our ESG approach

## Prioritised material topics

## Value creation outcomes


### ENVIRONMENTAL

**Reducing our environmental impact**

- Sustainable plant-nutrition solutions
- Soil health and biodiversity
- Sustainable use of water
- Navigating the decarbonisation transition and reducing our GHG

#### ENVIRONMENT

Our investment in, and partnerships with, farmers, researchers and government, in areas such as precision agriculture, and developing bio-fertilisers and next-gen smart fertilisers, are helping us find solutions that optimise productivity, improve soil quality and biodiversity and enable sustainable food production. We are also prioritising and resourcing decarbonisation activities against our 2020 baseline.

### SOCIAL

**Safe, diverse and engaging workplace**

- Building a safe, inclusive and high performing culture
- Zero Harm ambition: Safety and wellbeing

#### EMPLOYEES

We value our people and their expertise. By placing them first in everything we do, we empower them and enable them to deliver sustainable outcomes and a profitable future for all stakeholders.

**Partnerships with customers, research institutions, industry bodies and suppliers**

- Customer partnerships
- Innovation in responsible and sustainable products and services
- Sustainable supply chain

#### VALUE CHAIN: CUSTOMERS AND SUPPLIERS

We work with our farming customers to trial new products and create specialist blends that address nutrient deficiencies in their particular fields, maximise yields and reduce environmental impacts. We are a trusted partner and work with agronomists, dealers and suppliers to build mutually beneficial relationships to ensure resilient and competitive supply chain solutions are in place to support these new products and, in turn, support customer, supplier, and our own, business growth objectives.

**Relationships with our communities that build trust and resilience**

- Community safety, support and connection

#### COMMUNITY

We support sustainable farming communities through: face-to-face Agronomy in Practice workshops; provision of expert advice through the Nutrient Advantage Decision Support System; active engagement with local communities close to our operations; and through our support of organisations such as Rural Aid.

### GOVERNANCE

**Good governance that drives sustainable returns**

- Industry and government collaboration on green technology towards Net Zero
- Technology as an enabler and a disruptor
- Active engagement in ESG issues
- Regulatory risk management

#### SHAREHOLDERS

We are expanding our core capabilities through a focus on supply arrangements; manufacturing reliability and efficiency; and distribution growth initiatives. We are investing in new and value-added products and services; a digital platform to drive ease of doing business; and green ammonia. We aim to lead carbon thinking in fertilisers in Australia. These strategies and initiatives, along with our commitment to the highest standards of corporate governance, will help us deliver the sustainable returns that shareholders expect.

# Environmental Topics

**Our fertilisers play a vital role in feeding a growing population through increasing crop yields and maximising production on existing cleared land. Through our Manufacturing Excellence, Leading Technology Solutions and Customer Focus strategic drivers we aim to provide leading soil health solutions for our customers while reducing their environmental impact, as well as the impacts of our own operations.**

## Soil Health and Biodiversity

IPF has a proud history as a fertiliser company, producing and distributing a range of fertilisers to support the Australian agricultural industry. Today we are evolving to become a sustainable soil health company focused on improving our customers' most important asset, the soil.

Soil health continues to be recognised as a key farming priority. As such, we are seeing increasing demand for solutions that address challenges faced by growers, such as variations and declines in soil health across arable land, which are impacting yields.

Soil biodiversity is an essential component of healthy soil, because soil organisms cycle nutrients, making them available to plants, improve water entry and storage, provide resistance to erosion, aid in carbon capture and break down organic matter. For these reasons, sustainable soil health includes restoring soil biodiversity in farmland soils where it has been reduced over time.

The ability to measure and monitor soil's key characteristics is essential to improving soil health. IPF's analytical laboratory, Nutrient Advantage (NA) offers specialist soil, plant and water testing to advisors and farmers, and tests approximately 200,000 soil, plant and water samples each year. As of 2023, this operation has been providing nutritional analysis services for farmers for 60 years.

In 2022, the NA laboratory became the exclusive supplier of laboratory services to Precision Agriculture. Together, we are collecting, curating and interpreting spatial soils data for soil nutrient mapping, including through Precision Agriculture's innovative geo-spatial information system (GIS) platform, Soli. Precision Agriculture's methodology for intensive soil management enables a more advanced understanding and management of paddocks.

The strategic alliance between IPF and Precision Agriculture will further upgrade the agronomic data and infrastructure available to dealers, agronomists and consultants, helping farmers achieve more productive and sustainable outcomes.

Our work in improving soil health is underpinned by our extensive distribution footprint. IPL's fertilisers business operates in all Australian States other than Western Australia. This geographical diversity means we serve a wide variety of growers across a wide variety of crops and local ecosystems. Our strong focus on customer relationships allows us to understand the different needs of a variety of customers, and tap into the local knowledge of farmers and advisors in those different ecosystems.

### Soil Health Test Package

Introduced in 2022, our Soil Health Test Package enables analysis of the interactions between the biological, chemical and physical elements of soil and how they impact soil health. By understanding the differences in interactions, farmers can make targeted improvements to their under-performing areas and increase productivity and sustainability. Our soil health test package also interprets the results and provides recommendations on how to improve those areas.

This enables a more advanced understanding and management of paddocks, allowing farmers to adapt fertiliser application as soil characteristics change across a field. The result is application of the right product at the right place to achieve maximum yields while reducing the total amount of fertiliser applied, reducing the potential for nutrient losses to the environment. We are currently also consulting with a range of institutions to find additional, innovative solutions to enhance soil health. Our research partnerships are listed on page 22 of our **2023 GRI Index and Data Supplement**.

Our soil health strategy is underpinned by our approach to fertiliser use, which is outlined on the following page.

IPF's laboratory testing facilities and services play a key role in supporting the partnership with Precision Agriculture. Our soil health strategy is underpinned by the following approach to fertiliser use:

| | | | |
|---|---|---|---|
| **USE ONLY WHAT IS NEEDED**<br>  | **Nutrient Advantage** | **Soil health starts with building a strong base of soil, crop and nutrient knowledge.** | – We operate Australia's largest state-of-the-art soil, plant and water testing laboratory.<br>– Our soil testing, undertaken by experienced agronomists, generates customised fertiliser-blend recommendations for our farming customers to optimise nutrient efficiency and yields.<br>– Our aim is to expand our existing advisor network and service offering to double the number of tests over the next five years by adding capacity and enhancing testing ranges. |
| **USE IT WHERE IT IS NEEDED**<br>  | **Partnering with Precision Agriculture** | **Variation in yields and soil is not addressed by conventional application. Technology and automation can enable variable rate application, delivering precise quantities to each location.** | – IPF is the exclusive supplier of laboratory services to Precision Agriculture. |
| **USE IT EFFICIENTLY**<br>  | **Liquid Fertilisers** | **These are a proven, easy, safe and more precise way to deliver large-scale applications.** | – In FY22, IPL finalised the purchase of the Easy Liquids (formerly Yara Nipro) liquid fertiliser business on the east coast of Australia. We continue to run agronomy workshops to share our knowledge on liquid fertilisers. |
| | **Australian Bio-Fertilisers** | **Continued investigation and testing of organo-mineral fertilisers produced from processed poultry waste and mineral fertiliser. The resulting pelletised product allows farmers to apply both organic and traditional applications in a single pass and fits the circular economy megatrend.** | – We continue to test organo-mineral fertilisers and investigate the potential for commercial scale manufacturing. |
| **USE IT, DON'T LOSE IT**<br>  | **Enhanced Efficiency Fertilisers (EEFs)** | **These products help minimise nutrient losses to waterways and to the atmosphere as GHG emissions.** | – We have leading proprietary inhibitor brands and continue to invest in capacity and capability to develop, support and drive growth in EEF products as the drive to decarbonise intensifies. |

# Sustainable Plant Nutrition Solutions

## Enhanced Efficiency Fertilisers for more sustainable crop nutrition

Our Enhanced Efficiency Fertiliser (EEFs) range has been shown to reduce GHG emissions from fertiliser use on farms by up to 76% in one instance[1]. EEFs work by keeping nitrogen in stable forms in the soil for longer, optimising their uptake by plants and reducing the risk of nutrient run-off and losses to the air as nitrous oxide, a GHG. This year we participated in an industry association review to submit a method to formally quantify the GHG reductions associated with EEFs.

We have been actively promoting the use of these products and working with customers to help optimise their use. A core part of this approach is a go-to-market strategy to engage with and inform farmers and so drive greater demand. To ensure customers get access to the products they need we have upgraded investment to provide the coating and blending capacity required for greater EEFs sales. We are also making enhancements to our supply chains to source ingredients to meet growing EEF demand.

We are a lead partner in the Australian Research Council (ARC) funded Hub for Smart Fertilisers (the Hub), investing nearly A$4m in this project. The focus of Hub research is on increasing nitrogen use efficiency (NUE) through a better understanding of how plants capture and use nutrients. This R&D investment aims to provide the required knowledge to improve NUE through strengthening our existing EEF range. Because improved NUE also reduces our customers' on-farm GHG emissions, these will also reduce IPF's downstream scope 3 emissions. (see 'Nitrification inhibitors in EEFs slash on-farm GHG emissions' on the following page).

We have also continued our work on developing silicon-based fertilisers that have been shown to increase stress resistance in crops and replace silicon lost from soils in certain crops. The results to date suggest these products may improve crop tolerance of abiotic stresses, such as heat stress, which may be of value in a warming world.[2]

## Trigger humic acid with high organic carbon content

To further help farmers improve the health and quality of their soils, we introduced a granular humate to our range of products last year, which can be co-located with applied fertilisers. Trigger® is an air-dried, low-dust product, with a high concentration of humic acid which not only improves soil health and quality, but also imparts its benefits directly into the root zone, increasing nutrient availability. This can lead to increased yield and crop quality and may help mitigate the effects of abiotic and biotic crop stresses.

## Our Easy Liquids Range

IPF acquired the YaraNipro liquid fertiliser business in 2022, rebranding it as Easy Liquids. The advantages of liquid fertiliser products include easy handling, easy storage on farm and resistance to deterioration while in storage. They can also be applied using a wide range of existing farm application equipment and can be applied with precision through modern fertigation systems, which incorporate application with efficient irrigation techniques. Additionally, liquid fertilisers can be applied in any season, wet or dry, enabling flexibility for farmers when planning their programs. This is a crucial benefit, as the ability to adapt to changing environmental conditions has become a key issue for Australian farmers to manage the impacts of climate change.

Through our Easy Liquids range, and our market growth strategies, we anticipate significant growth associated with the continued roll-out of these products. Aligned geographically with IPF's broader business, the Easy Liquids operations located in Moree and Whitton in New South Wales, and Boundary Bend in Victoria, are strategically located in key irrigation markets on Australia's east coast.

IPF's ongoing investment in liquid fertilisers, combined with the soil testing and analysis capabilities of its Nutrient Advantage Laboratory and our support of the ARC Research Hub for Smart Fertilisers, are all part of our work to improve productivity and soil health for our farming customers.

## Circular Economy Solutions

As noted in our case study on nitrification inhibitors in EEFs on page 64, we continue to investigate and test organo-mineral fertiliser products which include treated organic wastes such as chicken manure. In another circularity initiative, IPF has recovered 3 million kilograms of our woven polypropylene fertiliser bags from customers since 2015. These are sent for recycling through the Australian Government Accredited Product Stewardship scheme, Big Bag Recovery. Read about this initiative in the waste section on page 67.

1. Meng, Y., et al (2021) Geoderma, Nitrification inhibitors reduce nitrogen losses and improve soil health in a subtropical pastureland (388). https://www.sciencedirect.com/science/article/ abs/pii/S0016706121000215.
2. Guntzer, F., Keller, C. and Meunier, J. (2012) Benefits of plant silicon for crops: a review. Agronomy for Sustainable Development, Springer Verlag/EDP Sciences/INRA, 2012, 32. (1), pp.201-213. ff10.1007/s13593-011-0039-8ff. ffhal-00930510.

® Trigger is a registered trademark of IFO.

## Nitrification inhibitors in EEFs slash on-farm GHG emissions

In late 2022, IPF tested using fertilisers treated with the nitrification inhibitor, dimethyl pyrazole glycolate (DMP-G), which has been shown to reduce nitrous oxide ($N_2O$) emissions. This research is important for the decarbonisation of the agricultural sector, because nitrous oxide is a GHG with a warming potential 265 times higher than $CO_2$.

Using eNpower® EasyN®, a combination of our proprietary nitrification inhibitor containing (DMP-G), and urea ammonium nitrate solution, we recorded a 64% reduction in $N_2O$ emissions over the 36-day experiment.

With more nitrogen being retained in the soil, farmers may be able to maintain current yields with less applied nitrogen, or grow increased yields with existing nitrogen application rates. Improved nitrogen use efficiency is a key objective for IPF's research, as it reduces GHG and improves productivity.[1]

In 2023, field trials continued to show substantial reductions in GHG with the use of inhibitors. In partnership with Latrobe University, we tested a blend of organo-mineral fertilisers applied to celery crops. The use of organo-mineral products and dimethylpyrazole phosphate (DMPP) treated synthetic fertiliser reduced $N_2O$ emissions by between 55% and 82% compared with the standard practice of applying chicken manure and inorganic fertiliser during the cropping cycle.

A separate trial aimed to quantify the effect of our Trigger humic acid granule when applied with NPKS fertiliser at a cabbage field in Bacchus Marsh. GHG emissions were sampled at pre-determined intervals using static chambers and analysed, with the initial results showing promising reductions in GHG with the use of Trigger. See our 2023 Climate Change Report for some of the data from this trial.

Measurements will continue over the next few months with further data on biomass, tissue and soil analysis to be collected.

## Navigating the decarbonisation transition and reducing our GHG

As a manufacturer of emissions-intensive ammonia-based fertiliser products, IPF is committed to reducing its GHG emissions and has identified a pathway to a potential 44% Paris-aligned reduction by 2030. See the Gibson Island green ammonia project discussed on page 89 of our Governance Topics section under 'Industry and Government Collaboration on Green Technology Towards Net Zero.' Our Net Zero Pathway to 2050 is presented in Chapter 2 of the **2023 IPL Climate Change Report**.

### Managing scope 3 emissions

Scope 3 emissions are indirect GHG emissions that arise from third parties in our value chain, such as our suppliers, and their suppliers. Scope 3 also includes the GHG emissions associated with the use of the products we sell.

For IPF, the most significant scope 3 emissions sources are the on-farm nitrous oxide ($N_2O$) emissions from the use of our fertiliser products by our customers. For this reason, our EEF range will form a key part of our Scope 3 management strategy. See the case study on EEFs on the left.

We are also working to integrate scope 3 management into our procurement systems. By 2025, we aim to have a framework and systems in place that allow us to track and manage our upstream scope 3 GHG just as we manage other aspects of our supplier relationships. Please refer to Chapter 3 of the **2023 IPL Climate Change Report** for detailed insight into IPF's scope 3 reduction strategies.

### Climate-related financial risks

For a detailed discussion of the identified risks and opportunities associated with climate change for IPF, and our management strategies, see Chapter 4 of the **2023 IPL Climate Change Report.**

## Sustainable use of water

At IPF, we treat water as a precious resource. Large volumes of high quality cooling water are required for the manufacture of ammonia at our Phosphate Hill and Gibson Island facilities, and water is also a key input for the manufacture of sulphuric acid at Mt Isa, which is used to make ammonium phosphate fertilisers at Phosphate Hill, and for the manufacture of single super phosphate (SSP) fertiliser manufacture in Geelong.

Water management strategies during 2023 included the reclamation of 146,950kL of water from waste gypsum piles at our Phosphate Hill site. This allowed the extraction of fresh groundwater to be reduced as well as the recapture of valuable phosphates from the water. At Gibson Island, 149,580kL of process water was recycled though an on-site reverse osmosis water treatment plant, 70,577kL of stormwater was captured for use and 371,762kL of purchased recycled water was used.

At Geelong, 28,265kL of stormwater was captured and treated for reuse. This reduces municipal water use and prevents high nutrient rainwater leaving the site. At Mt Isa, steam used in the on-site electricity generation turbine is condensed for reuse and any water drained from our cooling towers is returned to the nearby metal ore mine as process water. At our Townsville PDC, we have increased our capacity to collect and store 'first flush' rainwater and reuse this captured water for cleaning activities and the site wheel bath, reducing site water use.

1. Meng, Y., et al (2021) Geoderma, Nitrification inhibitors reduce nitrogen losses and improve soil health in a subtropical pastureland (388) at **https://www.sciencedirect.com/science/article/abs/pii/S0016706121000215**.

### Managing water risk

We conduct an annual water risk assessment for our manufacturing sites, using the World Resources Institute (WRI) Aqueduct Water Tool. The Tool provides projections of rainfall, population and expected baseline water stress for each region to 2025, 2030 and 2040. In addition, our future climate-related scenarios indicate that average annual rainfall across the lower half of Australia is likely to be reduced and longer periods of prolonged drought may be created potentially resulting in water restrictions becoming more frequent in some areas, including Gibson Island, Geelong and Mt Isa.

In addition to the water saving strategies above, our Gibson Island site is connected to a recycled water source to manage the risk of water restrictions impacting on future production. See the case study to the right. A similar project is being investigated for our Geelong site. At Phosphate Hill where our facility and our farming neighbours depend on groundwater, we conduct modelling, using 39 monitoring bores, to assess any potential changes across the embayment. We also submit an annual performance report to the Queensland Government Department of Natural Resources and Mines each year, as well as completing an annual aquifer review. Work in 2023 has confirmed that water is not a risk at this site in the short to medium term. We plan to extend this work on water risks to our Mt Isa site in 2024.

### Remediating groundwater impacts at Gibson Island

The cessation of natural gas based manufacturing at Gibson Island and the decommissioning of the ammonia and urea plants has allowed IPL to begin assessing and investing in the remediation of legacy environmental impacts since the plant was built in 1969. As part of this work, we identified potential groundwater contamination and, in line with our corporate values, proactively approached the regulator to collaborate on a prompt and effective management plan.

This has resulted in the planned construction of a $13m wastewater plant that will process the groundwater to remove contaminants in line with environmental licence limits. Using biological treatment, the plant will address nitrogen, phosphorus, zinc and other contaminants via nitrification, denitrification and clarification processes.

## Managing water risks at Gibson Island

Our Gibson Island site in Brisbane, Queensland, is in a catchment currently assessed by the WRI Aqueduct Water Tool as subject to high (40-80%) baseline water stress and high 'physical risk – water quantity' due to a relatively large local population and high inter-annual variability in rainfall. The Water Tool also predicts that baseline water stress in the catchment will double by 2030 due to climate change and a growing population. Water will continue to be required to produce hydrogen via electrolysis of water at this site should the Gibson Island Green Ammonia project proceed.

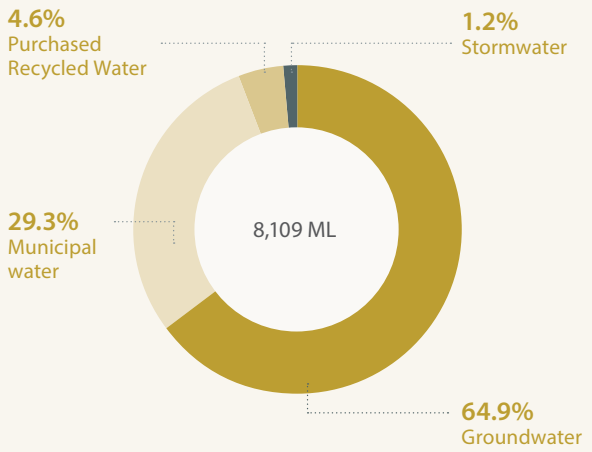
During 2021, IPL collaborated with Seqwater, the Queensland Bulk Water Supply Authority, and Urban Utilities to enable the supply of recycled water to the IPL Gibson Island site. We invested A$4m in a dedicated pipeline that allowed around 6,000kL per day of recycled water to be delivered for use up until natural gas based manufacturing ceased in December 2022. This project underpinned our three-year target of a 25% reduction in Australian municipal water use by 2023 against a 2020 baseline. The target was exceeded, with a 42% reduction in 2023, due in part to the cessation of natural gas based manufacturing during the year.

The recycled water connection not only secures an uninterrupted supply in the event that municipal water supplies are restricted – it also means that more water is left in municipal water supply dams for our local community.

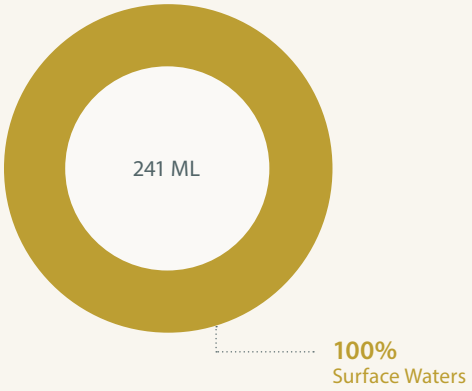
## Innovation in environmental controls

Staff at IPF now use iAuditor across manufacturing and distribution sites. As highlighted in our TNFD-aligned 'LEAP Assessment', the prevention of fertiliser spills to the environment is a key focus for our business to manage the risk of potential release of nutrients to the environment through loss of containment incidents. This technology is an iPad-based software which assists us to monitor environmental issues and controls. The use of a dashboard enhances accountability and visibility.

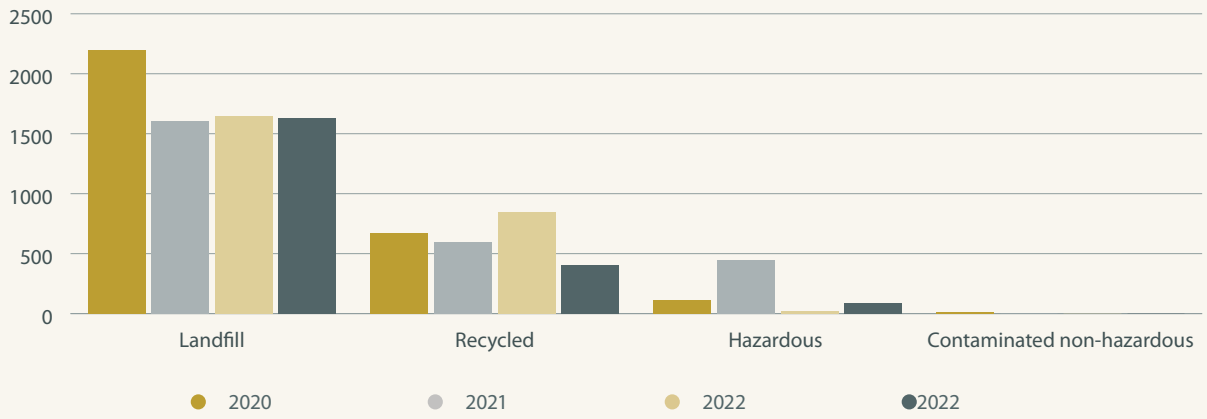
## IPF water withdrawal by source



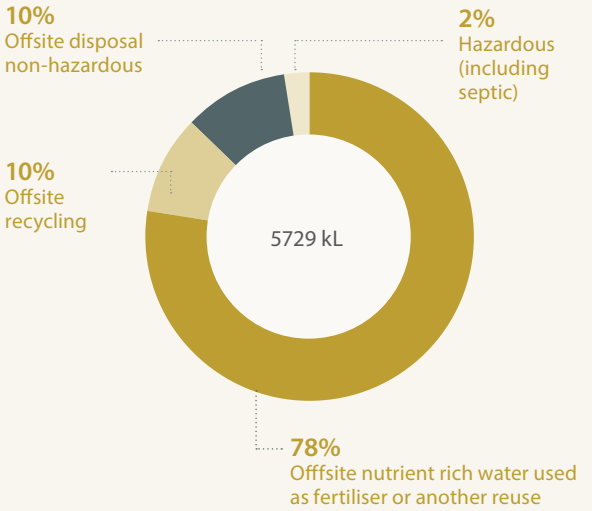

## IPF water discharge by destination




## IPF solid waste (metric tonnes)




## IPF liquid waste by destination (kilolitres)



### Increasing the recycling and reuse of solid waste

In 2023, IPF reduced overall solid waste by 16%, generating 2,120 tonnes of solid waste compared to 2,520 tonnes in 2022. Due to the decommissioning of equipment associated with the cessation of natural gas based manufacturing at Gibson Island in Queensland, our hazardous waste increased from 25 tonnes in 2022 to 87 metric tonnes in 2023.

In addition, 3,175,868 tonnes of phosphogypsum waste was stockpiled on lined pads for dewatering at our Phosphate Hill ammonium phosphate manufacturing facility in Queensland. This waste is considered hazardous due to its low pH. It is planned that these stockpiles will be capped and vegetated to match local landforms.

We also continued to promote the collection and recycling of our fertiliser bags through Big Bag Recovery, who collected 310 tonnes of our woven polypropylene (WPP) plastic packaging from our farming customers and dealers for recycling.

### Liquid waste by destination

In 2023, of the 5,729 kilolitres (kL) of liquid waste sent offsite, 4,442 kilolitres or 77.5% of this was nutrient-rich water repurposed as a fertiliser product by farmers or used for another purpose downstream, such as woodchip additive. Our 2023 liquid waste total includes 129 kilolitres, or 2.2%, that is hazardous liquid waste.

## Upcycling waste into energy

In June 2023, IPF announced an agreement with QEM Limited to provide the latter with vanadium-rich spent catalyst from its Mt Isa sulphuric acid plant, in order to create vanadium redox flow batteries (VRFBs).

This is an outstanding example of circular economy opportunities being captured by IPF – upcycling manufacturing waste to produce VRFBs, an Australian invention, and likely to play an important role in achieving Australia's decarbonisation ambitions. The agreement will be in place for five years.

# TNFD LEAP Assessment

## Why is the Taskforce on Nature-related Financial Disclosures (TNFD) important?

**With the recognition that a changing climate can impact on the financial returns of companies, there is also increasing recognition that the rapid decline in the state of nature more broadly, including natural ecological systems, also poses risks for businesses.**

Natural resources are the basis of the goods and services we use in everyday life. More than half of the world's economic output – US$44 trillion of economic value generation – is highly or moderately dependent on nature-based systems. As a supplier to the agricultural sector, we understand that our customers interact directly with natural resources such as water and soils, and depend on natural systems such as the water cycle, nutrient cycles, and the atmospheric cycles which create our weather. These are required to grow the food and fibre, such as cotton, that are not only required to sustain our populations, but that our customers depend on for their livelihoods. The Taskforce on Nature-related Financial Disclosures (TNFD) aims to help businesses account for nature-related risks and opportunities in their decisions.

For IPF, these decisions relate not only to the provision of products and services that help our customers improve soil health and reduce their environmental impacts, but also to our own operations. We recognise that these also depend on natural resources and can impact local environments. In view of this, we conducted an initial TNFD LEAP[1] assessment during 2023.

This assessment is a first step towards:

- **Developing a more informed understanding of how nature-related risks and opportunities affect our business performance, reputation and future, and taking actions to address these.** In the same way that we have assessed how climate change may impact the sustainability of our business, this LEAP assessment is the first step in assessing and managing risks and opportunities associated with the nature-based assets we depend on.
- **Getting ahead of the curve on the evolving TNFD framework, identifying any gaps in capability and knowledge to develop an integrated approach ahead of the framework's wider adoption.** With the release of the final TNFD framework in September 2023, IPF is likely to be one of the first businesses to engage with it, allowing us to identify focus areas to strengthen our management strategies.
- **Demonstrating our committment to investigating the value of the natural assets and broader environment on which we, our agricultural customers, and wider society depend.** In addition to our commitment to Zero Harm which extends to the environment, IPF aims to become Australia's leading soil health company, improving the health of soils and reducing the impact of our products and our operations on the ecosystems we interact with.

1. The LEAP approach for corporates involves four core phases of analytic activity: Locate your interface with nature; Evaluate your dependencies and impacts; Assess your risks and opportunities; and Prepare to respond to nature-related risks and opportunities.

## IPF and Natural Systems

IPF's long-term strategy is to grow from a leading fertiliser company, manufacturing a range of domestic fertilisers, into a sustainable soil health company that provides sustainable plant nutrition solutions to improve soil health. This makes good business sense, and it presents us with an opportunity to better understand the natural cycles of which we are a part.

As a fertiliser business, IPF's products interact with important natural cycles that support plant growth and can also impact animal and plant biodiversity. Our fertilisers contain nutrients that are part of the nitrogen and phosphorous cycles; the soils and crops they support interact with the water cycle and carbon cycle; and through our manufacturing processes, we use water, and fuels that are part of the carbon cycle.

Through our Net Zero Pathway, we are actively seeking to decarbonise our operations and reduce our GHG emissions, and we continue to develop products and services which reduce impacts relating to the overuse of nitrogen and the depletions of soils. These include our EEF range, which aims to increase nitrogen use efficiency and reduce losses to waterways and to the air as GHG; our Trigger humic acid product; and precision agriculture and our soils and plant testing services, which enable the sustainable and efficient application of nutrients.

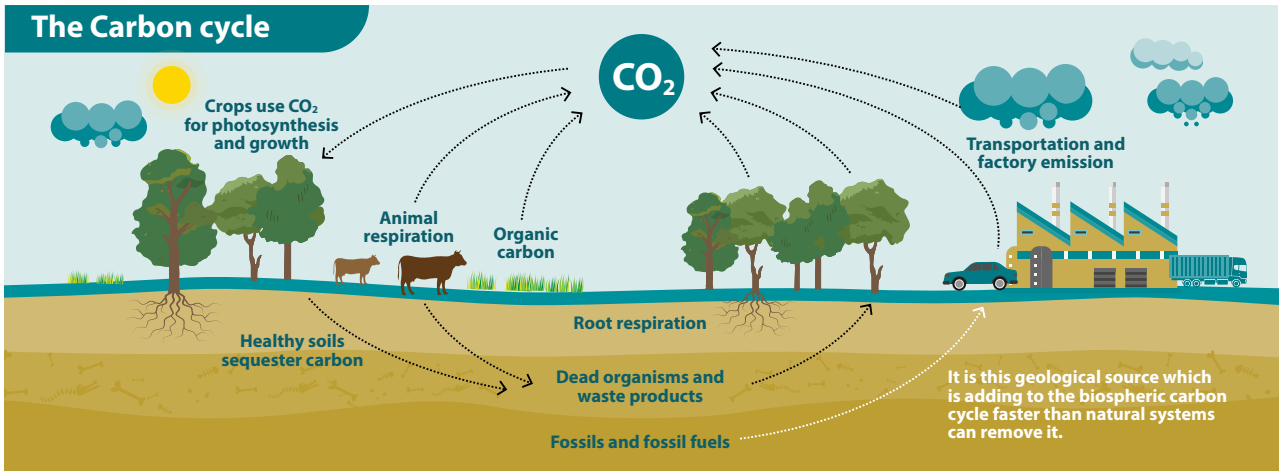
This approach is in line with our values of Zero Harm for Everyone Everywhere, Care for the Community and our Environment, and Challenge and Improve the Status Quo – and strengthens our wider commitment to being a sustainable business.

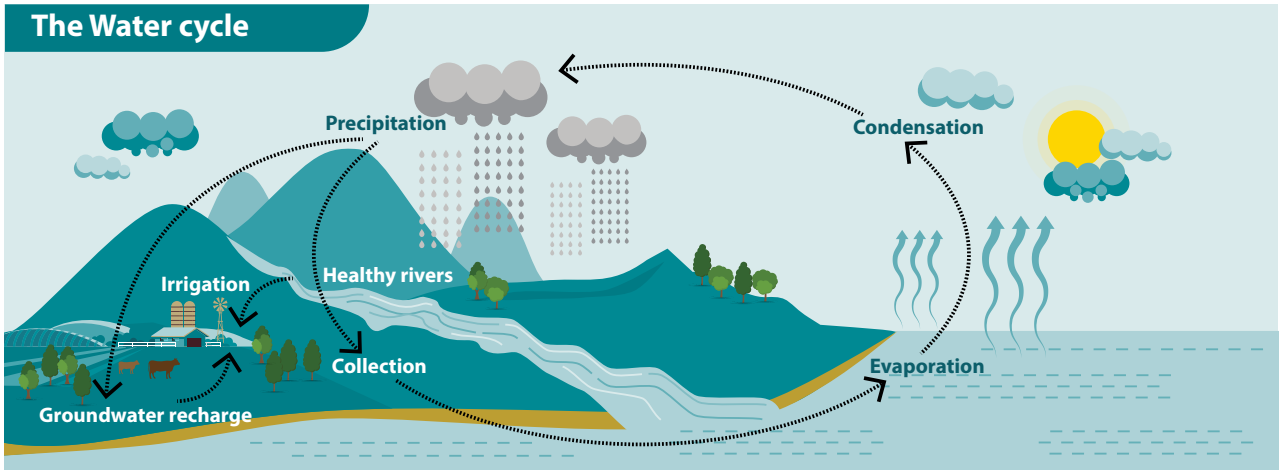
The steps in our inaugural LEAP Assessment comprised the following:

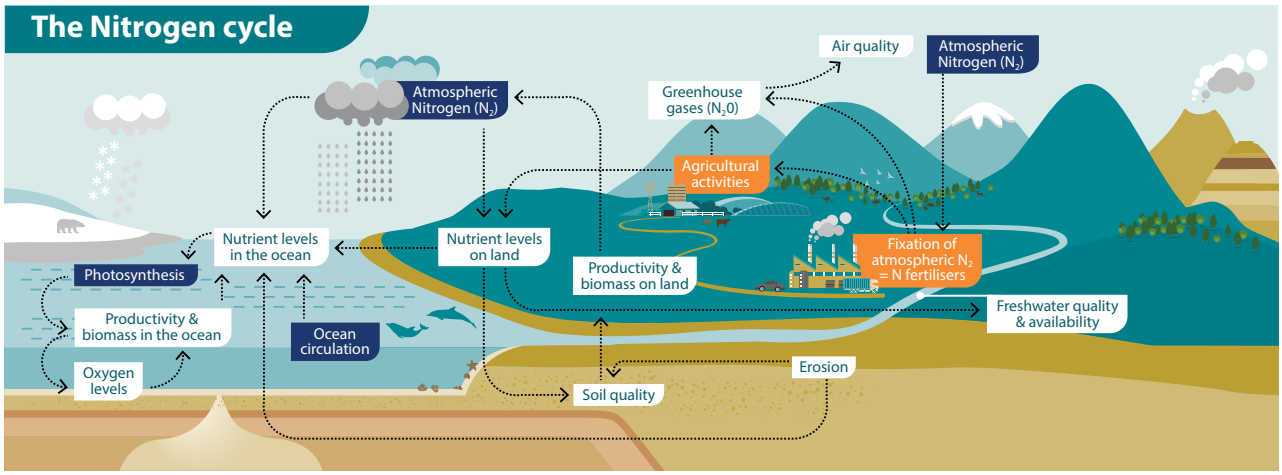
1. An analysis of how IPF's operations and products (downstream) intersect with natural ecosystems, including ecosystems of concern, has been undertaken in accordance with the TNFD's 'LEAP' framework[2]. The LEAP framework comprises the following phases:
   - **Locate** their interfaces with nature.
   - **Evaluate** their dependencies and impacts on nature.
   - **Assess** their nature-related risks and opportunities.
   - **Prepare** to respond and report on these.
2. In line with the LEAP framework, a subset of seven high-priority sites was identified, with three sites selected for deeper analysis: Geelong SSP Manufacturing site, Cairns PDC, and our research farm at Colonsay.
   - The Cairns PDC and Geelong manufacturing sites were selected for deeper analysis as they are large sites that are representative of a wide range of operations across the IPF business, and are located close to areas of high biodiversity importance.
   - The Colonsay Farm site is a research farming site and was chosen as a proxy for a range of farming customers. This site has used farming practices similar to those of local farmers in the region since 1985, and provides many years of data relating to fertiliser use and other farming practices.
   - For the purposes of this inaugural LEAP assessment, these deep-dives serve as 'case studies'. A fully detailed LEAP assessment may deliver similar findings for each of IPF's other seven high-priority sites.
3. Finally, an analysis was conducted to identify key nature-related risks and opportunities across the business. This analysis drew on the first two steps of the LEAP assessment above and IPF's existing soil health strategy.

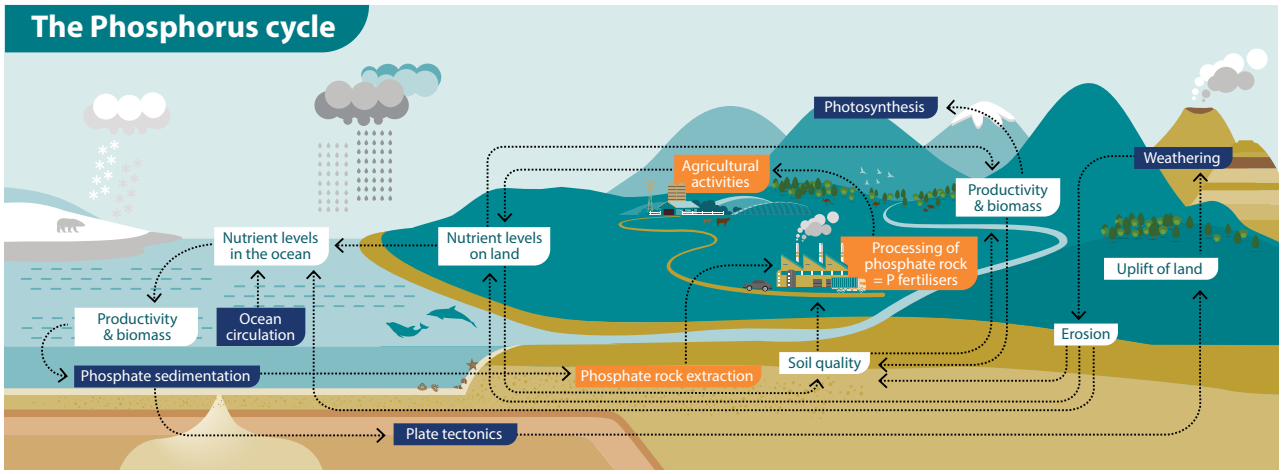
2. While the TNFD framework also recommends analysis of upstream (supplier) level impacts and dependencies on nature, this has not been included in our initial assessment.

Natural cycles which IPF and its customers interact with and depend on.



# LEAP Assessment framework

## PHASE 1
## LOCATE
Interface with nature

**51**
**IPF sites identified across Australia**

**26**
**were prioritised as being of larger scale and importance**, based on analysis of the scale of their operations and their likely impact on nature.

**7**
**sites emerged as highest priority,** in view of their overlap with a large number of ecosystems under stress. These were: Cairns, Devonport, Geelong, Gibson Island, Kooragang Island, Port Adelaide and Werribee.

### Cairns and Geelong
sites were selected from these seven for a full analysis recommended by the TNFD. These are covered on pages 74 and 75.

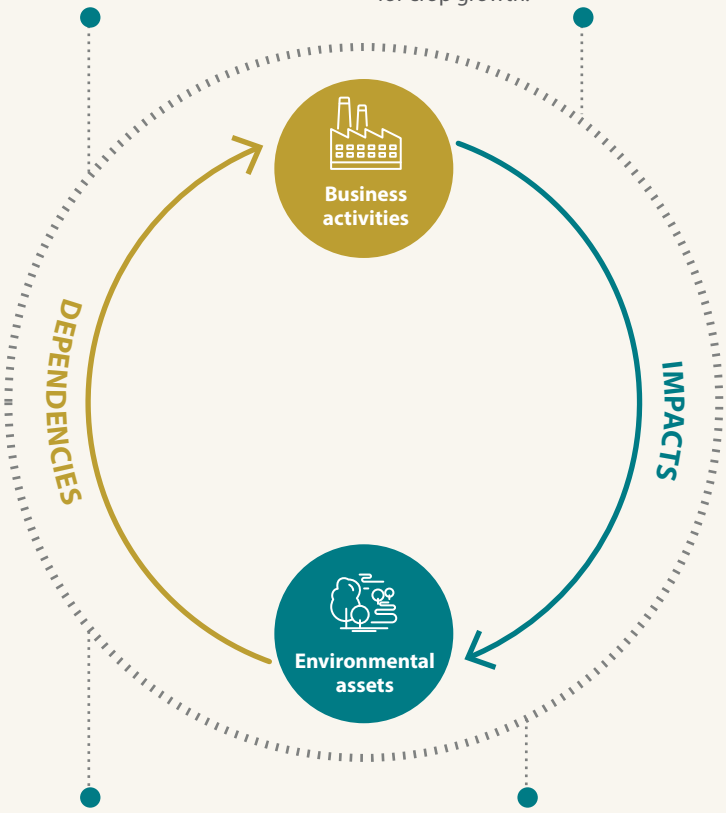
### Colonsay Farm
**IPF's research-focused Colonsay Farm site** was selected as an additional site, broadly representative of farms where IPF's products are used, to assess the impacts and dependencies at this interface with natural systems. These are covered on page 76.

## PHASE 2
## EVALUATE
Dependencies and impact

**Dominant drivers of natural impact ('impact drivers') were mapped for the business**, using the TNFD-recommended ENCORE tool.

» IPF sites were mapped against industry-relevant drivers such as water use, non-GHG air pollutants, soil pollutants and water pollutants.

**Dependencies and impacts for the Colonsay Farm site** were evaluated with reference to relevant TNFD disclosure metrics for the agriculture sector, including soil state, nitrogen use efficiency, nutrient losses to waterways, GHG from fertilisers and dependencies on natural cycles and ecosystems for crop growth.




**Taken together, the Cairns and Geelong sites intersect with 21 ecosystems, including:**

» Tropical and temperate forests, savannas and grasslands, subterranean cave and rock systems, and agricultural lands

» Wetlands, rivers and lakes, shoreline systems and marine vegetation

» Coastal inlets and lagoons, marine shelfs, and ocean waters.

**Detailed assessments of each site** were conducted to understand their likely impacts and dependencies on the above ecosystems.

PHASE 3

## ASSESS

Material risks and opportunities

**A list of nature-related risks and opportunities was identified** as being relevant to IPF, using the outputs of the Locate and Evaluate phases.

- Risks and opportunities pertaining to land, water and atmospheric ecosystems were identified.
- Some relate directly to IPF's operations; other risks and opportunities relate to the state of broader natural systems, which can impact on relationships and networks on which IPF depends, such as customers and community stakeholders.

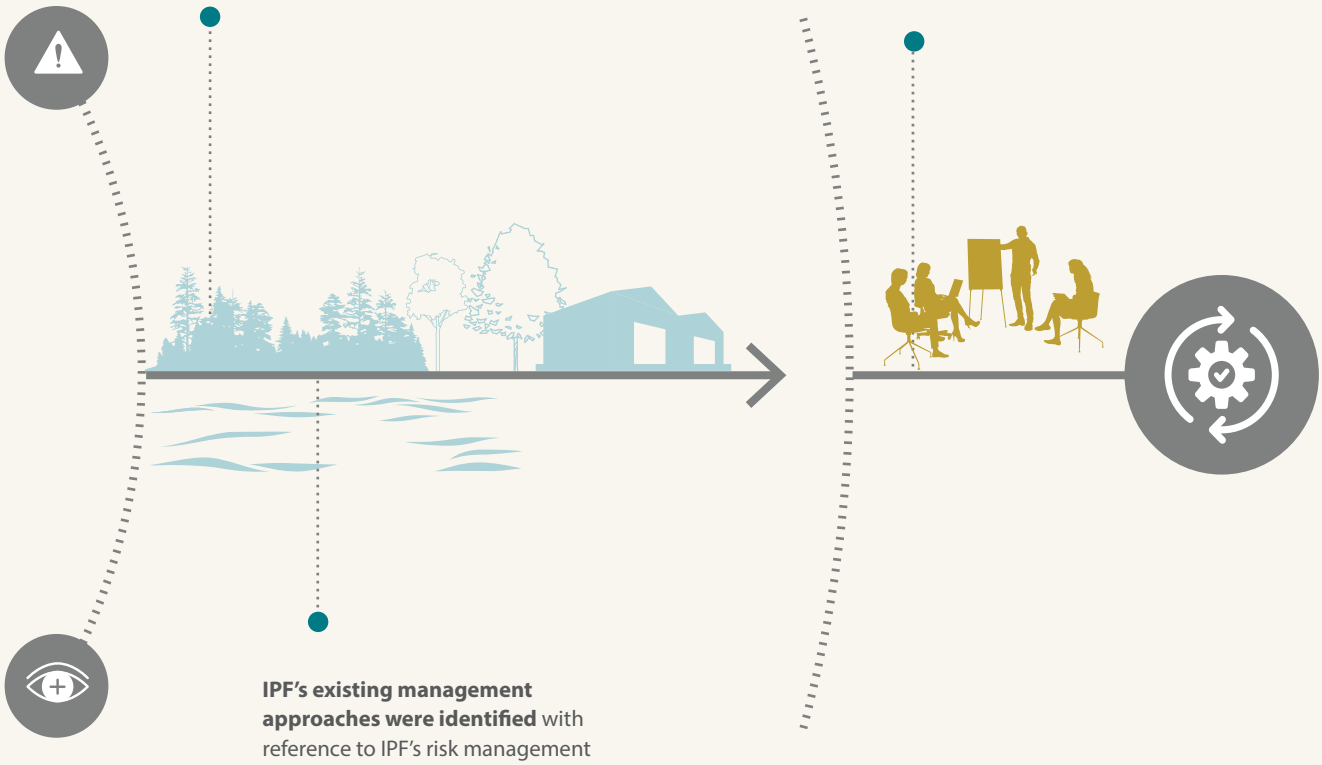
PHASE 4

## PREPARE

To respond and report

The PREPARE Phase of the LEAP framework involves a business making decisions on strategy and resource allocations to respond to the risks and opportunities identified, and to prepare to report on these as per the TNFD framework.

This initial LEAP assessment examined existing management strategies for identified risks and opportunities and will inform management's consideration of additional strategies as we prepare to respond and report. It also sets the foundation for a future, deeper assessment of IPF's interactions with nature.



**IPF's existing management approaches were identified** with reference to IPF's risk management framework and business strategy. Opportunities for future management strategies, including participation in potential partnerships to track natural ecosystem health, were also identified.

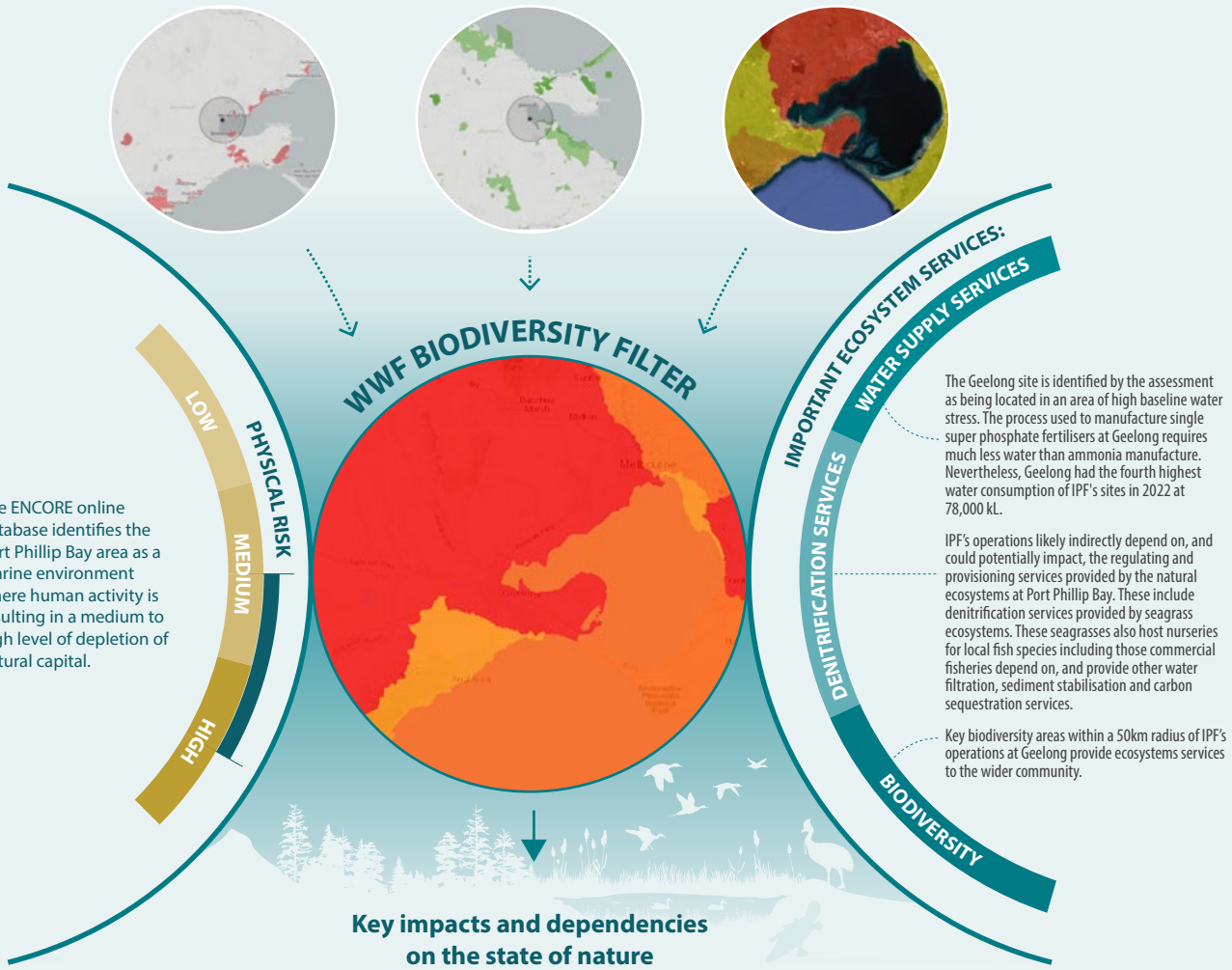
# Deep dive

## Geelong

### Key biodiversity areas
There are six key biodiversity areas within a 50km radius of IPF's operations at Geelong. There are six Critically Endangered species, and a further 31 Endangered species, in the study area.

### Protected areas
IPF's Geelong site is in proximity to a number of important ecosystems, such as Port Phillip Bay and the Bellarine Peninsula, which are both Ramsar Site Wetlands of National Importance.

### Water stress: High
According to the WRI Aqueduct water tool, Geelong has a water stress score of 4 (high) compared to an IPF site average of 1.70.




The ENCORE online database identifies the Port Phillip Bay area as a marine environment where human activity is resulting in a medium to high level of depletion of natural capital.

The Geelong site is identified by the assessment as being located in an area of high baseline water stress. The process used to manufacture single super phosphate fertilisers at Geelong requires much less water than ammonia manufacture. Nevertheless, Geelong had the fourth highest water consumption of IPF's sites in 2022 at 78,000 kL.

IPF's operations likely indirectly depend on, and could potentially impact, the regulating and provisioning services provided by the natural ecosystems at Port Phillip Bay. These include denitrification services provided by seagrass ecosystems. These seagrasses also host nurseries for local fish species including those commercial fisheries depend on, and provide other water filtration, sediment stabilisation and carbon sequestration services.

Key biodiversity areas within a 50km radius of IPF's operations at Geelong provide ecosystems services to the wider community.

### Water
**In FY22 Geelong used 78,000kL of water – IPF's third-highest consumer.**

- Sources in the upper Barwon and Moorabool Rivers are experiencing reduced flows as a result of high use by industry, farms and residents.
- Port Phillip Bay provides significant regulating and provisioning services. In 2016 annual denitrification has been estimated at $11bn in value, and carbon sequestration at $350,000.
- The health of this and other local water ecosystems are under pressure from a growing urban and industrial land use footprint.

### Water, land and air pollution
**In FY22 Geelong was responsible for 35,522 tonnes of $CO_2e$ emissions ($tCO_2e$); and NPI data for FY21 records 123 tonnes of non-$CO_2$ emissions.**

- A high proportion of NPI-reported emissions come from fluoride compounds and particulate matter. Geelong's legacy manufacturing facilities pose a challenge to controlling these emissions, suggesting the site directly depends on, and impacts, the regulating and provisioning services at Port Phillip Bay.
- Geelong also produced 9kL of hazardous liquid waste, and 263 tonnes of solid waste, in FY22. The capture and reuse of stormwater and wastewater mitigates the outflow of these into local waterways.

# Cairns

### Key biodiversity areas

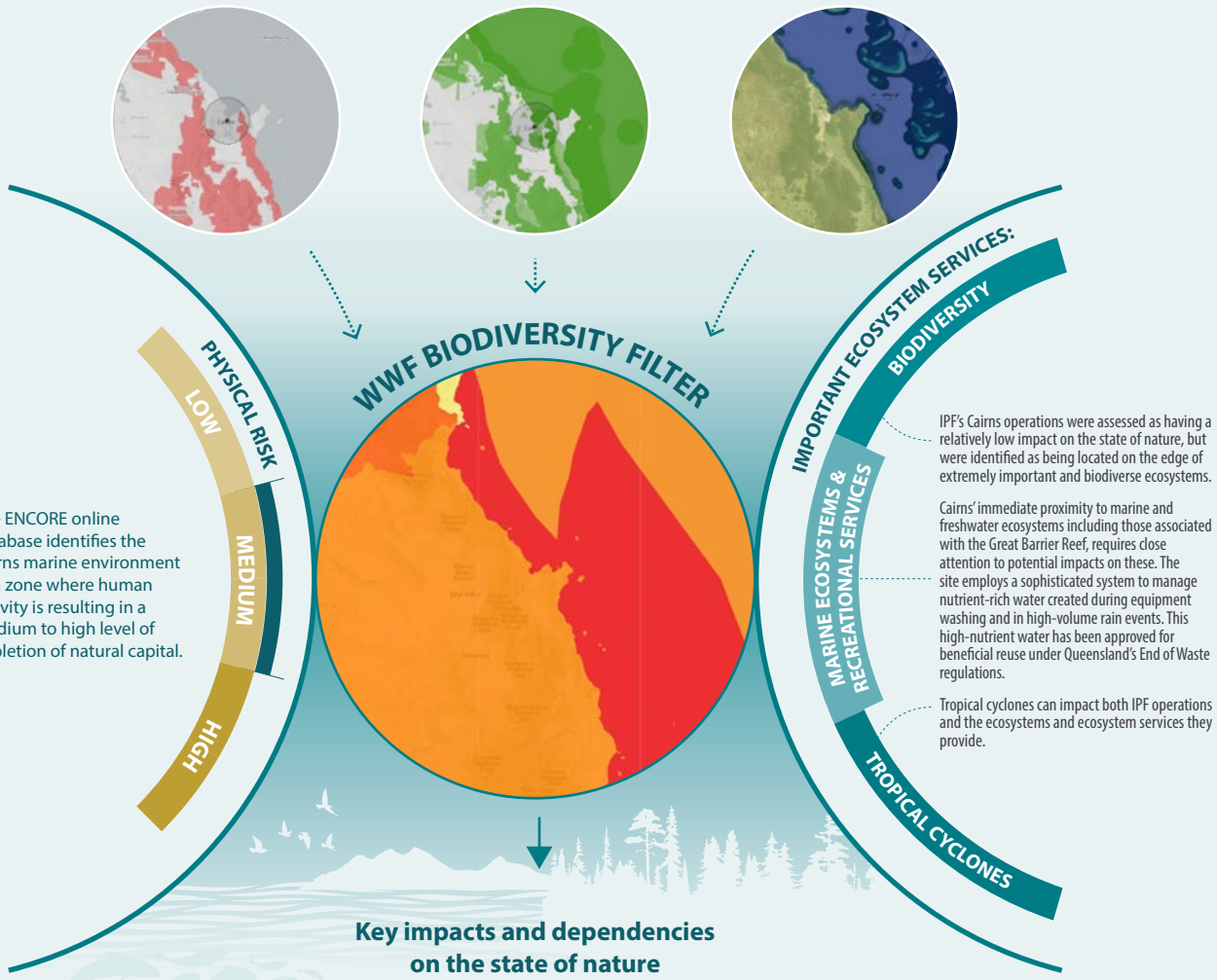
There are six key biodiversity areas in a 50km radius of IPF's site at Cairns. 14 migratory and local species are Critically Endangered, and a further 49 are Endangered.

### Protected areas

IPF's Cairns site is close to the World Heritage Great Barrier Reef, the Mandingalbay Yidinji Indigenous Protected Area, the World Heritage Wet Tropics of Queensland and seven marine parks.

### Water stress: Low-Medium

According to the WRI Aqueduct water tool, Cairns has a water stress score of 1 (low-medium) compared to an IPF site average of 1.70.




The ENCORE online database identifies the Cairns marine environment as a zone where human activity is resulting in a medium to high level of depletion of natural capital.

IPF's Cairns operations were assessed as having a relatively low impact on the state of nature, but were identified as being located on the edge of extremely important and biodiverse ecosystems.

Cairns' immediate proximity to marine and freshwater ecosystems including those associated with the Great Barrier Reef, requires close attention to potential impacts on these. The site employs a sophisticated system to manage nutrient-rich water created during equipment washing and in high-volume rain events. This high-nutrient water has been approved for beneficial reuse under Queensland's End of Waste regulations.

Tropical cyclones can impact both IPF operations and the ecosystems and ecosystem services they provide.

## Key impacts and dependencies on the state of nature

### Water

**In FY22 Cairns used 300kL of water.**

- There is a low-to-moderate pressure on water supply.
- However, Trinity Bay directly touches to the Great Barrier Reef, the value of which has been estimated at A$6.4bn annually.
- 90km of wetlands provide biodiversity, filtration, storm and flood protection and recreational services to human and animal communities.

### Water, land and air pollution

**In FY22 Cairns was responsible for 261 tonnes of $CO_2$ emissions ($tCO_2e$); and NPI data for FY21 records 3.9kg of non-$CO_2$ emissions.**

- NPI-reported emissions comprise fluoride compounds. These are produced only occasionally, and typically when fertilisers are moved around on-site.
- Cairns also produced 0.4kL of liquid waste and 23.7 tonnes of solid waste in FY22.
- Cairns employs a system to manage nutrient-rich stormwater during extreme rain events. Wastewater can be on-sold as a nutrient under Queensland's End of Waste regulations.

# Colonsay Farm

## Protected areas

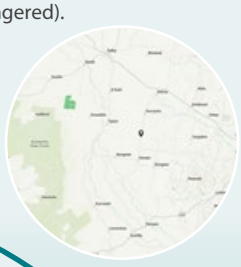
There are four protected areas within a 50km radius, and no Key Biodiversity Areas. 30 threatened species live in the area, including 10 migratory and local species considered Endangered (and one Critically Endangered).

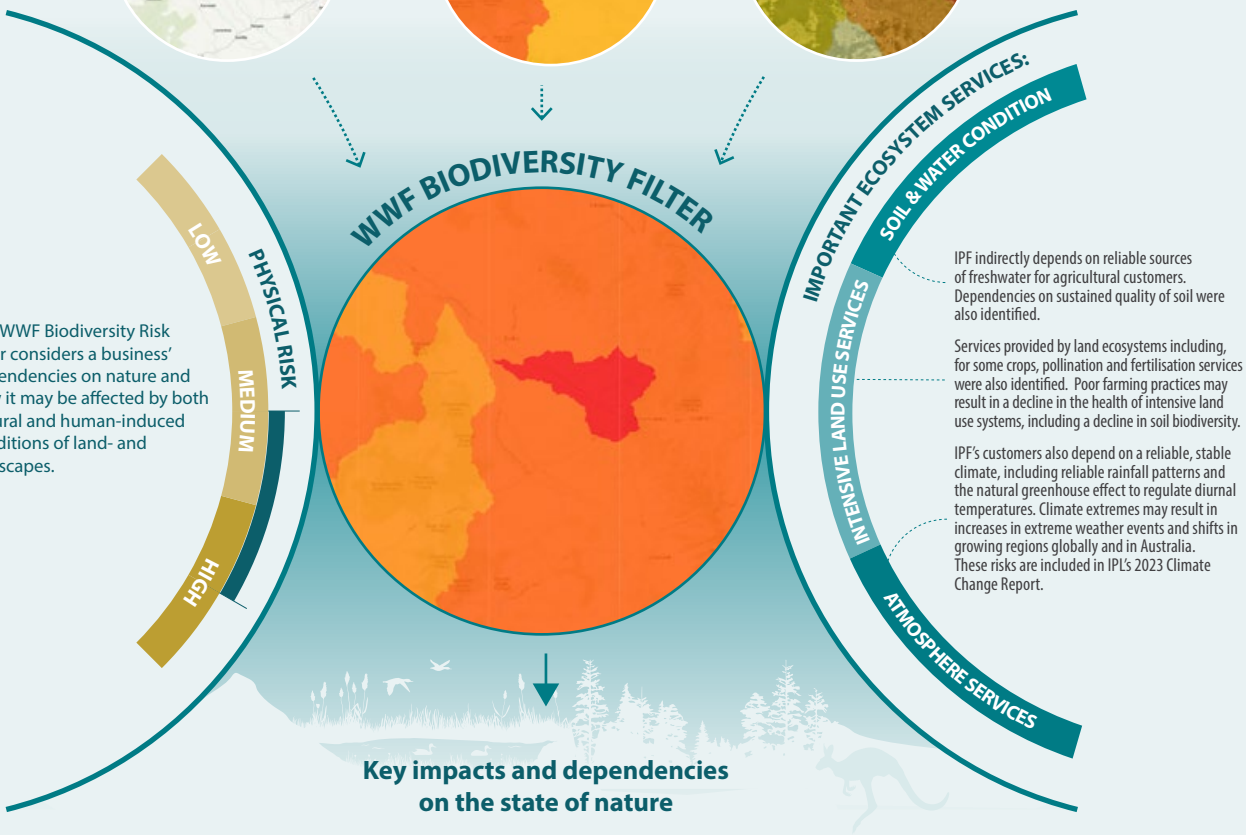
## Soil condition

The WWF Biodiversity Risk Filter uses soil organic carbon (SOC) as a proxy for overall soil condition. SOC is essential to soil functions and food production, mitigation and adaptation to climate change. At Colonsay Farm soil condition is ranked 'medium risk'.

## Water stress: Medium-High

According to the WRI Aqueduct water tool, the Colonsay site has a medium-high (20-40%) baseline water stress (ratio of total water withdrawals to available renewable water supplies).






## Water

**The Colonsay Farm uses only rainfall water.**

» Although water stress is medium-high (20-40%) there is a low-to-moderate pressure on water supply in the region due to low population density, and the Colonsay Farm uses only rainfall for crops.

## Water, land and air pollution

**The Colonsay Farm is located in an area assessed by the WWF Biodiversity filter as having a medium risk of nutrient loading in water bodies. This is assessed to be the most significant impact extending beyond the farm boundaries.**

» Colonsay Farm research data has focused on crop yields and soil health (soil carbon content, water holding capacity and other soil nutrient content) under farming practices predominantly used in the region since 1985.

» Data on nutrient losses to ground and surface water from the site has not been collected to date.

## Preliminary summary of findings

IPF's nature-related risks and opportunities have been identified at a high level, with reference to the TNFD's fundamental concepts for understanding nature. These include interactions with biomes, environmental assets and ecosystem services, as defined by the TNFD. See the glossary on page 88 for more information.

### Relevant biomes, environmental assets and ecosystem services

IPF was found to interact with, or had the potential to impact, biomes and natural assets in the Land, Freshwater and Atmosphere TNFD realms. These included a range of biomes located in proximity to IPF sites, which stretch from Cairns in north Queensland, down the eastern coast of Australia, and across southern Australia as far as Port Lincoln in South Australia.

### Land ecosystems and the services they provide

Land ecosystems comprise soils, grasslands and bushlands, and subterranean structures. These ecosystems provide services including soil formation, soil stabilisation, supporting pollinators, filtering water, and providing food and habitat for Australia's unique animals[1]. Australia's land ecosystems also absorb over 700 million tonnes of $CO_2$ from the atmosphere each year[2]. Soil health is of particular relevance to IPF. Over 95% of the world's food is grown in soil and soil organisms provide essential nutrient recycling for plants[3]. Soils are home to over 25% of Earth's species with significant biodiversity found within soils[4]. A teaspoon of healthy topsoil typically contains up to 6 billion micro-organisms[5].

Land based biomes that IPF interacts with or could potentially impact include Subterranean-terrestrial ecosystems, mineral and energy resources, terrestrial (land-based) ecosystems, and cultivated biological resources.

In addition to the soil and pollination services provided to farming customers as listed above, it was identified that IPF relies either directly or indirectly on a number of other ecosystem services provided by land based natural ecosystems, or could potentially impact services provided to others. These include water flow regulation, water purification, habitat maintenance, recreational services, cultural services, education, scientific and research services, and spiritual, artistic and symbolic services.

### Marine and freshwater ecosystems and the services they provide

Marine and freshwater ecosystems comprise oceans, coastal waters, terrestrial waters such as rivers and lakes and subterranean systems, such as aquifers. They also include the water plants, fish and shellfish found in marine, coastal and terrestrial water systems. In addition to providing seafood and water for irrigation, these ecosystems include important 'blue carbon' assets such as mangrove forests, seagrass meadows and tidal marshes which capture and store large amounts of carbon. Australia is home to 12% of the world's blue carbon ecosystems, and holds 5-11% of global blue carbon stock. The Great Barrier Reef alone accounts for around 11% of the world's seagrass blue carbon stock[6].

Ecosystem services provided by marine and freshwater ecosystems that IPF depends on or could potentially impact include water supply, soil and sediment retention, water flow regulation, water purification, flood mitigation, air filtration, soil quality regulation, nursery population and habitat maintenance, local (micro and meso) climate regulation, biological control and storm mitigation. They also provide recreation-related services, education, scientific and research services, spiritual, artistic and symbolic services.

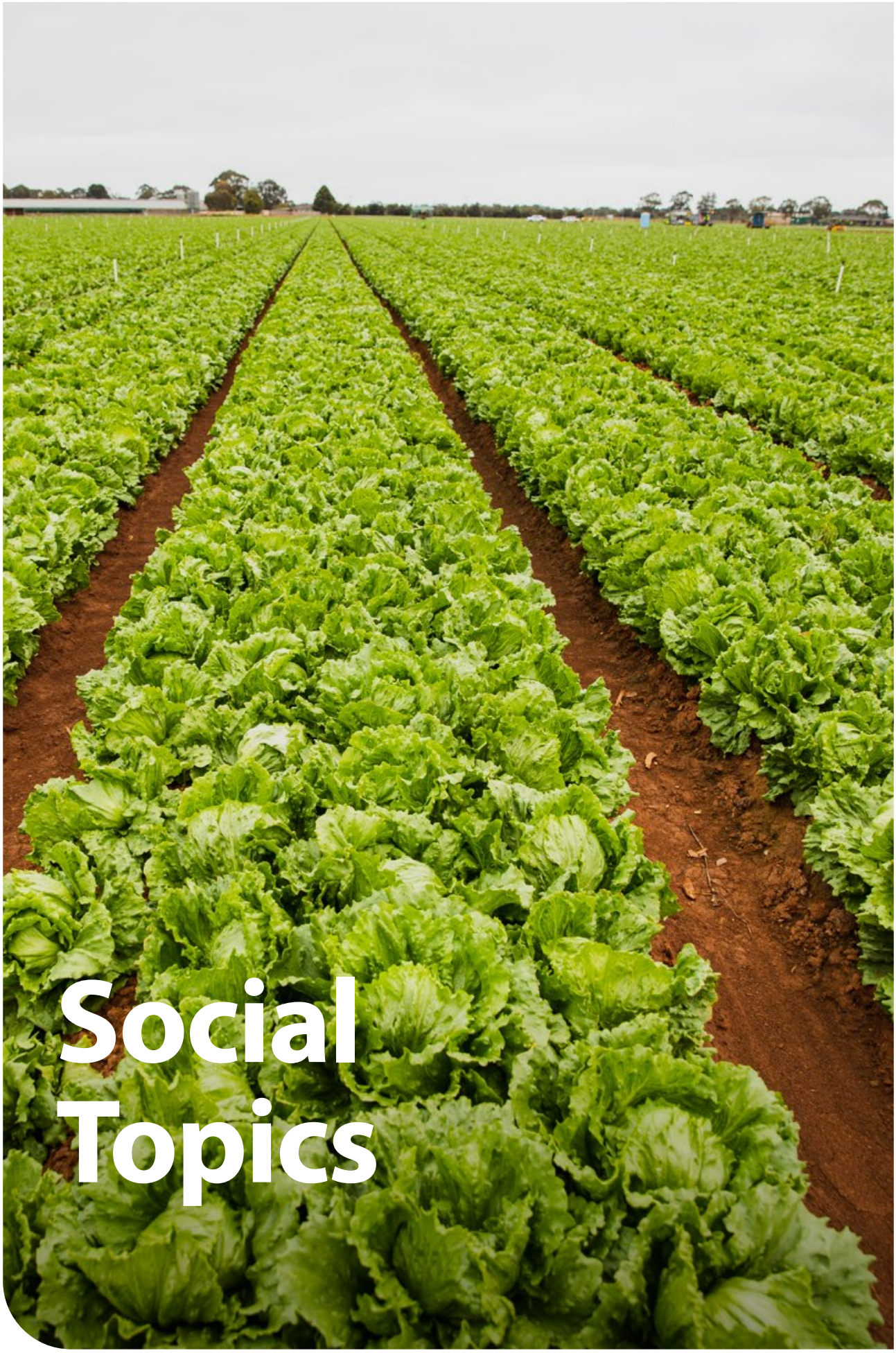
### Atmosphere and the services provided

Earth's atmosphere is vital to sustaining life. Not only does it contain the oxygen most species need to live, but it is also where our weather is created.

Atmospheric ecosystem services that IPF interacts with or could potentially impact, include atmospheric flows of energy, water vapour and gases, including GHG which contribute to climate change. Services provided to others that IPF could potentially impact include recreation-related services, education, scientific and research services, spiritual, artistic and symbolic services.

This initial LEAP assessment also examined existing management strategies for a preliminary list of identified risks and opportunities. This will inform management's consideration of additional strategies as we prepare to respond and report.

1. Australian Government, **(2021) Australia State of the Environment Report**.
2. **Earth Systems and Climate Change Hub (2021) Global and Regional Carbon Budgets.**
3. Australian Government Department of Agriculture, Fisheries and Forestry (2023) *National Soil Strategy*. https://www.agriculture.gov.au/agriculture-land/farm-food-drought/natural-resources/soils#:~:text=Soil%20is%20vital%20to%20life,from%20soil%20and%20soil%20organisms).
4. Yarwood, S. et al (2020). *Forest and Rangeland Soil Biodiversity*. 10.1007/978-3-030-45216-2_5.
5. NSW Department of Planning and Environment (2023) *Soil biodiversity*. https://www.environment.nsw.gov.au/topics/land-and-soil/soil-degradation/soil-biodiversity.
6. Australian Government, 2023, 'Coastal Blue Carbon Ecosystems'.



# Social Topics

**Food and agribusiness are critical to Australia's economy and to the people and communities who rely on the agricultural industry. Increased efficiency and productivity are essential to the sector's international competitiveness. Through investment, expansion and partnerships, our fertiliser business has an opportunity to play a leading role in helping Australian farmers improve profitability and, importantly, minimise their environmental impact.**

## Customer partnerships

In 2022 and 2023, our customers faced an array of challenges – an increasingly unpredictable climate, post COVID-19 dislocation in the supply chains of crucial commodities, volatile prices and trade tariffs and sanctions related to the Ukraine/Russia war. That conflict alone removed between 20-30% of globally traded nitrate from the market. As a result, many of the conversations we have had with customers have been about supply and price as we endeavoured to provide them with the products they required.

During 2023, we also focused on working directly with farmers to establish a range of research trials and demonstrations. These aimed to provide data on both productivity and GHG reductions associated with the use of our products on customer farms.

Our customers are increasingly focused on technical innovation to drive yield, manage cost and reduce environmental impacts. There is increasing recognition that more sustainable farming practices are required to maintain productivity, and there is a growing interest in managing on-farm GHG emissions. We are well positioned to provide leading technology solutions to meet their needs.

## Innovation in responsible and sustainable products and services

Worldwide the agricultural sector used around 185.1 million tonnes of fertiliser in 2022 – a relative decline owing to a rise in prices due to the war in Ukraine. However, global consumption is expected to bounce back by 4% in 2023[1]. Australian fertiliser imports remained high, and were valued at A$4.9bn in 2022[2].

Our commitment to continue the development of new, sustainable fertiliser products that address the sector's impacts, such as nutrient losses to waterways and GHG emissions, while increasing fertiliser efficiency, is demonstrated through our research partnerships and our innovative product range.

In 2023, we continued our involvement in the ARC funded **Research Hub for Smart Fertilisers** (the Hub) in partnership with Elders Rural Services, the University of Melbourne and La Trobe University, building on our work last year which developed **a new class of nitrification inhibitors**.

This year we brought our EasyNpower liquid Enhanced Efficiency Fertiliser (EEF) to commercial production. Like our other EEFs, the product improves nitrogen use efficiency through keeping nitrogen in a stable form in the soil for longer, ensuring more nitrogen is taken up by crops and reducing losses to air as GHG and to waterways through leaching. Used in pasture systems, it can be stored for long periods on farm, giving farmers an easy to handle source of nutrients they can draw on 365 days a year. We also began work with several new farming customers on soil health testing, including testing for soil carbon.

1. International Fertiliser Association (2023), Medium-term Fertiliser Outlook 2023-27, **https://www.fertilizer.org/wp-content/uploads/2023/07/2023_IFA_medium_term_outlook_public_summary.pdf**.
2. Australian Government (2022), Snapshot of global fertiliser trade, **https://www.agriculture.gov.au/about/news/snapshot-global-fertiliser-trade-sep-22**.

# Sustainable Supply Chains

Maintaining robust, sustainable supply chains is crucial to our customers and our business success. Given the disruption to supply chains over the past three years, primarily due to COVID-19, the Russia/Ukraine conflict and other geopolitical developments, supply chain optimisation and risk management has become even more critical for IPF. The implications of these disruptions have included extraordinary increases and volatility in global commodity prices which in turn has led to varying degrees of customer demand disruption. In these circumstances, the predictability of demand requirements has been challenging.

Over the past three years IPF's response to the COVID-19 and Ukraine crises has proven the resilience of our supply chains. Whilst there is a level of normalisation occurring, a range of enhancements have been implemented to further mitigate these risks. Examples include an increased capacity of Phosphate Hill rail assets in the sulphuric acid supply chain; further diversification of our imported urea supply base and qualification of new phosphate rock suppliers for our Geelong SSP manufacturing facility. In addition, enhancements to trading risk management processes have been implemented.

During the past year, the IPF supply chain and procurement teams have been consolidated to enhance alignment to our business objectives. We continue to use technology to support our supplier selection processes including the Dow Jones Risk and Compliance screening tool, freight vetting tools such as the RightShip maritime ESG platform and a supply audit platform through which supplier audits and tests for supply chain risks and sensitivities can be conducted. These tools are progressively being developed with additional functionality to better support supplier due diligence and supply chain risk monitoring.

## Managing modern slavery, human rights and environmental supply chain risks

During 2023, we continued to integrate the assessment of modern slavery risk and other ethical concerns into our supply chain management systems. Our operations team follow strict guidelines regarding the procurement of materials and the selection of suppliers. In addition to applying due diligence regarding sanctions and trade compliance, we avoid buying any materials where the point of origin is unclear.

We believe staff training is a key measure when it comes to managing modern slavery risk. In 2022, IPL developed and rolled out an in-house Modern Slavery training package that deploys in the native languages of staff members. The wider training program is designed for, but not limited to, regional and functional business leaders, procurement team members, human resources team members, site and operations managers, and project managers. In 2023, 109 IPF employees completed the e-learning module.

When looking at broader social and environmental risks in our supply chains, IPF's overall geographic risk is considered low, with over 90% of our Tier 1 suppliers based in Australia, a country with a relatively low level of social and environmental risk. Approximately 1% of IPF's suppliers are in high-risk countries such as China, Malaysia, Vietnam, Morocco and Togo. One of these suppliers was selected for a deep-dive audit to be completed in 2024. For more information see the **IPL Modern Slavery Statement**.

## Urea and Perdaman

One of the key supply chain initiatives is increasing our access to urea – the most traded nitrogenous fertiliser. In early 2023, ground was broken on the Perdaman Chemicals & Fertilisers' (PCF) urea plant construction site. The world scale manufacturing plant will produce granular urea fertiliser, an essential input for both Australian agriculture and industrial chemical markets.

The plant will provide IPF with a secure, long-term supply of Australian urea through an exclusive 20-year offtake partnership that secures up to 2.3 million tonnes of urea per year for IPF and its customers. The agreement with Perdaman underpins IPF's ability to deliver competitive, long-term urea supply for its Australian customers and facilitates expansion of sales into growing global markets.

## Our manufacturing facilities: a critical source of supply

Our domestically located, large-scale manufacturing facilities provide a critical source of security of supply for our distribution business:

**Phosphate Hill** is the only domestic manufacturer of Monoammonium Phosphate (MAP) and Diammonium Phosphate (DAP) in Australia. Located 900 kilometres west of Townsville in Queensland, it is has an annual capacity of over 950,000 tonnes. It has access to locally produced sulphuric acid from our Mt Isa plant, medium-term natural gas supply contracts are in place and it operates a phosphate rock mine on-site.

**Gibson Island:** Our Gibson Island plant near Brisbane produced Ammonia (Big N), granulated ammonium sulphate (GranAm) and urea until natural gas based manufacturing ceased at the site during this year, after extensive efforts failed to secure an economically viable gas supply. We worked with our employees and outplacement services to ensure a just transition for affected personnel. As outlined in the Governance Topics section, a planned repurposing of the plant to generate Green Ammonia from water electrolysis in partnership with Fortescue Future Industries is currently being assessed for a final investment decision.

**Geelong:** Our Geelong site produces Single Super Phosphate (SSP) using domestically sourced sulphuric acid and naturally occurring mineral rock.

In FY22, IPL finalised the purchase of the Easy Liquids (formerly Yara Nipro) liquid fertiliser business in Australia and acquired a majority stake in Australian Bio Fert Pty Ltd with the intent of investigating large scale manufacturing and delivering a new category of sustainable fertiliser.

In addition to its manufacturing activities, IPF is Australia's largest fertiliser importer and distributes fertiliser via its extensive network of distribution centres.

## Increasing our spend with Australian First Nations businesses

Our procurement team has worked for several years to increase our spend on First Nations businesses and suppliers. In line with IPL's Innovate Reconciliation Action Plan and the development of an Indigenous participation strategy and framework, we have incorporated procedures, templates and resources into our procurement processes with noticeable outcomes. In 2023, we exceeded our targeted spend on First Nations suppliers, with a 61% increase. IPL also become a voluntary member of the Business Council of Australia's Raising the Bar program, which aims to see members steadily increase their procurement spending with Indigenous suppliers.

# Community safety, support and connection

We are committed to building long-term and meaningful relationships with the communities in which we operate. Our Sustainable Communities Policy defines our approach to community relations and our Community Investment Framework (see page 48) preferences local approaches, enabling each of our sites to respond to the distinct needs of those who live in and around our areas of operations.

## Community Safety

Due to the potentially hazardous nature of industrial and agricultural chemicals, IPF's on-site staff are well trained to cooperate and engage with local community leaders and first responders on how to keep the community safe in the unlikely event of an incident. In addition to our robust safety measures, many of our sites are required by law to communicate regularly with our communities regarding safety plans and emergency procedures. For IPF, [X]% of sites also fall into this category. Some of these sites are classified as Major Hazard Facilities and these follow Safe Work Australia guidelines in communicating with their communities.

## Community Investment

There are two key components of the IPL Community Investment Framework. The first is our Dollar-for-Dollar program. It matches employee donations and site-based fundraising efforts (up to $20,000 annually) where they align with our Principles for Giving. The second is our Workplace Giving program. This is a voluntary workplace giving scheme whereby IPF employees can donate to one or more of the Company's nominated not-for-profit charities with the assurance that IPL will match these donations up to a total of $20,000 each year.

During 2023, A$383,596 of the IPL Community Investment was made globally by IPF through the Dollar-for-Dollar program, the Australian Workplace Giving program and various site-based initiatives, including in-kind donations and employee volunteer hours.

## Ensuring a just transition

For IPL, a 'just transition' means decarbonising our operations and supply chains in a way that meets the goals of the Paris Agreement but is also orderly, timely, fair and equitable.

We seek to protect and sustain the jobs we provide and to support the communities which depend on those jobs.

As a manufacturer of fertilisers, we manufacture and supply products and services that will continue to be in demand throughout the energy transition. As a result – and unlike some other industries – our ambition is not orderly closure, but successful decarbonisation of our manufacturing assets to continue to provide our products and services in a decarbonised economy, and to maintain the employment opportunities we provide.

We ceased natural gas based manufacturing at our Gibson Island site in Queensland, Australia this year after being unable to secure natural gas at a competitive price. We engaged with 193 employees to offer redeployment and outplacement services, with 75% engaging the services and 58% known successful transitions made.

For more information, see pages 15 and 23 of the **2023 IPL Climate Change Report**.


## IPF Geelong supports the 2023 Moorpanyal Park 1000 Swim

Our Geelong site is nestled against Corio Bay in North Shore, a bayside Geelong suburb which has just six residential streets and a close-knit community from all walks of life.

The waterfront offers spectacular views of Geelong and Corio Bay, and as our TNFD assessment identified this year, the area has a natural capital with a high value for both biodiversity and recreation, including six key biodiversity areas and two Ramsar Site Wetlands of National Importance within a 50km radius of IPF's operations. As a result the North Shore is frequented by tourists and locals, swimmers, kayakers, recreational fishermen, and families.

The Moorpanyal Park 1000 Swim was founded at the dawn of the new century with just 14 swimmers in 2000. The swim is now an annual event attracting more than 150 competitors along with friends, family and community members enjoying the day. This year our Geelong site helped the swim remain financially viable by assisting the local residents group with a cash donation, equipment such as witches' hats, flags and chairs, and also jointly sponsoring swimming caps for the event. This is a great example of IPF's community focused, locally-based community engagement strategy in action.

## Phosphate Hill supports Outback school, Flying Doctor Service and SES

Our Phosphate Hill ammonium phosphate fertiliser manufacturing site is located near a natural phosphate rock deposit in the north-west Queensland desert in Australia. Due to its remote location, our entire workforce is fly-in-fly-out, with charter flights between Townsville and our site-based employee camp.

The local Dajarra school has just one teacher and 14 students from ages 5-11, and is located about an hour's drive from the site. The kids hadn't been on a school camp for five years when the school approached and asked if we could help. The school does not have a bus, so one of our employees drove to the school, and delivered the students, teacher and support teacher to one of our return charter flights into Townsville. The students were able to attend a three-day school camp located on the coast, which many of the children had never visited before. We also donated snack packs and activities for the flight.

The local community is important in this remote location. The site was a major sponsor of the Royal Flying Doctor Service Gala in Mt Isa this year, employs four dedicated professional Emergency Response employees who are part of the local Dajarra SES unit, and sponsors the local rodeo and a raft of local sporting teams – allowing them to travel across the State to participate in competitions.

# Governance Topics

**We recognise that good corporate governance, the G in ESG, drives sustainable returns. The management of new risks and opportunities, new technologies, emerging sustainability issues and regulatory risks requires sound, strategic governance, including interaction with a wide range of external stakeholders, to achieve sustainable outcomes.**

The Board's oversight of the issues in this section, and our Governance structures, are described in the 'Our Governance' section on pages 7-9. IPL's Sustainability Steering Committee provides executive oversight of the sustainability strategy and gives direction on the management of ESG issues.

Good governance includes ensuring our people have the necessary knowledge to identify and manage ESG risks right across our global business. For IPF, Zero Harm for our people is of the utmost importance to us. We provide regular training for our employees to ensure hazardous materials and processes are handled with respect to Zero Harm for our people, our communities and the environment.

In 2023 this included prioritising mental health as a safety issue, with collaboration across IPF designed to build a mentally healthy workplace that incorporates psychosocial as well as physical health risk management.

This risk management approach included:

- a clear corporate framework and governance structure to ensure accountability
- data collection and analysis to inform strategic decisions and investments in programs and interventions and to assess their effectiveness
- a shift to a more proactive and preventative approach to building wellbeing and safeguarding mental health.

Our SafeTEAMS and mental health and wellbeing programs are aligned and designed to create a mentally healthy workplace. They include monthly discussion topics, lunch and learns, resources and tip sheets, workshops, and mental health awareness and leadership training.

Within IPF just under 78% of the target audience (541 staff) have received this training.

## Industry and government collaboration on green technology towards Net Zero

IPL is working with Fortescue Future Industries to investigate green ammonia production at our Gibson Island site. Since 1969, the site has used natural gas to produce hydrogen (H2) for the manufacture of ammonia (NH3).

IPL and Fortescue are assessing hydrogen production from the electrolysis of water using renewable electricity, to significantly reduce GHG emissions. The facility targets production of up to 70,000 tonnes of renewable hydrogen per year and this would replace all Gibson Island's current natural gas feedstock and 99% of its use of natural gas for energy. This would mean a 44% GHG reduction for Incitec Pivot Fertilisers (IPF) against its 2020 baseline and a 17% reduction against IPL's 2020 baseline.

In addition to our partnership with FFI, we have engaged with the Australian Government as we seek to bring the development of industrial-scale green ammonia forward. In October 2022 the project secured a A$13.7m Australian Renewal Energy Agency (ARENA) grant to proceed to Front End Engineering Design (FEED) stage and align technical specifications and costs, facilitate procurement and prepare the project for a Final Investment Decision (FID), which is expected in late 2023. Should it be approved, green ammonia production could begin as early as 2026.

If successful, as far as we are aware, Gibson Island would be the first retrofit of an existing ammonia plant in the world to run on green hydrogen. Green hydrogen has the potential to assist the decarbonisation of transport, heating, power and industry and could function as a renewable feedstock. The success of Gibson Island's green ammonia plant would be a pioneering contribution to the growth of Australia's green hydrogen industry.

Green hydrogen is more easily and safely transported as ammonia ($NH_3$) and can potentially be used to decarbonise other industries. Examples include its use as a fuel in decarbonising heavy transport, heating and power for buildings and industrial heat usage.

## Technology as an enabler and disruptor

In line with our Leading Technology Solutions strategic driver, we continue to invest in a range of research projects to assess the technical and commercial readiness of new technologies. These include: fertiliser technologies for sustained food security, healthy soils for sustainable food production, the development of novel urea coatings and the testing of silicon fertilisers which have been shown to increase heat stress resistance in crops.

Our long-term strategy is to grow from a leading fertiliser Company, manufacturing and distributing a range of domestic fertilisers, to a provider of sustainable plant nutrition solutions which improve soil health. This strategy will be leveraged through our expansive distribution footprint to drive new growth products and services towards soil health and changing growing conditions.

See the topics 'Soil Health and Biodiversity' on page 61, 'Sustainable Plant Nutrition Solutions' on page 63 and 'Innovation in responsible and sustainable products and services' on page 83 for more information.

## Active engagement in ESG issues

At IPF we work to build relationships with regulators and industry stakeholders as an important part of our managing ESG issues which are material to the sustainability of our business. We continue to seek feedback from a range of stakeholders on the issues important to them and the effectiveness of our reporting on these issues.

During 2023, progress on IPL's climate change strategy and transition plan, as provided in the 2022 Climate Change Report, was put to a non-binding, advisory vote to shareholders at the 2022 IPL Annual General Meeting, with 89.68% of shareholders voting in support. This was a resounding endorsement of IPL's management strategy. This non-binding, advisory vote will be held at least every three years, and will complement IPL's continued engagement with shareholders and other stakeholders about the risks and opportunities climate change presents for IPL's business.

This year we are also proud to have engaged an external expert to conduct an initial 'LEAP Assessment.' This has enabled us to identify IPF's impacts and dependencies on natural systems and to report against the risk management and disclosure framework of the Taskforce on Nature-related Financial Disclosures (TNFD) for the first time. For more information see page 68.

We continue to track and monitor changing regulations and incentives across Australia, including Hydrogen Headstart and the Federal Government's $1.9 billion Powering the Regions Fund. This is a welcome initiative that may support efforts to strengthen the nation's move to renewables and move to Net Zero by 2050 through support to decarbonise existing industry and develop new clean energy industries.

During 2023, we participated in an industry association review to submit a method to formally quantify the GHG reductions associated with our EEFs. We continue to actively promote the use of these products and work with customers to help optimise their use.

We also collaborated with a third party expert to conduct our annual review of the climate positions of the various industry bodies and associations of which we are a member. The review forms part of our ongoing monitoring of industry associations and the alignment between the views of these associations and IPL.

## Regulatory risk management

Our businesses, and those of our customers and suppliers, are subject to health, safety and environmental laws and regulations that require specific operating licences and impose various requirements and standards. Risk management, including regulatory and reputational risk management, is central to our continued growth and success, and the achievement of the Company's objectives and strategy.

To ensure we have the procedures and systems in place to not only determine what our regulatory obligations are, but how we carry them out, we receive monthly legislative updates, provided by a third party service provider for all States in Australia. As well as updates on existing legislation, this includes updates on proposed bills and changes, all of which feeds into our assessment of how legislation or upcoming changes could potentially impact our business and/or operations. Additionally, rather than taking a top-down approach, we encourage our site and environmental managers to stay on top of regulatory developments and to have processes to manage environmental legislation within the business.

In Australia, two of our major manufacturing sites, Phosphate Hill and Gibson Island, are captured under the Australian Federal Government's Safeguard Mechanism, which has essentially established a cap and trade scheme for any site which exceeds its facility-specific emissions baseline within a June year-end period. We are continuing to work with the Clean Energy Regulator to ensure we have the processes and systems in place for full compliance with Safeguard 2.0, which came into force on 1 July 2023.

## Regulatory infringements

We received two penalty infringement notices in 2023 from the Queensland Department of Environment and Science (DES) amounting to $28,750. These fines concern two separate incidents at our Phosphate Hill site which each involved a loss of containment of contaminated water from pipes to ground in one instance, and to ground and a dry creek bed in the second instance. We identified these incidents during regular inspections of the pipe networks and duly reported them to the regulator. Remediation actions included the removal of contaminated soil, replacement with clean soil and the replacement of pipe joints. In addition, a review of the governance of pipe networks between plants was conducted to clearly define the appropriate department responsible for these within the site. In addition the site has implemented increased frequency of decant water network inspections, improved quality of permit-to-work activities and improved face to face environmental compliance training for team leaders.

With the closure of natural gas-based manufacturing at Gibson Island during the year, we engaged with the Queensland Department of Environment and Science (DES) to resolve legacy contamination of soil, groundwater and stormwater. An Enforceable Undertaking, which contains commitments to further investigate, monitor and develop programs to improve the condition of the site, was negotiated with the DES. We also agreed to fund research at the University of Queensland into the recovery of phosphorus in water and donated to a local catchment management group.

# Glossary

**ARENA:** ARENA is the Australian Renewable Energy Agency. The agency supports the global transition to net zero emissions by accelerating the pace of pre-commercial innovation, to the benefit of Australian consumers, businesses and workers.

**Biodiversity:** the variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems. The term also includes diversity within species, between species, and in ecosystems.

**Biomes:** global scale zones, generally defined by the type of plant life that they support in response to average rainfall and temperature patterns (e.g. tunfra, coral reefs or savannas).

**Carbon dioxide equivalent ($CO_2e$):** The universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis.

**Cation:** A positively charged atom or molecule. The five most abundant exchangeable cations in soil are calcium (Ca++), magnesium (Mg++), potassium (K+), sodium (Na+) and aluminium (Al+++).

**Climate:** The weather conditions prevailing in an area/ region in general or over a long period.

**Dependencies:** Aspects of ecosystem services that an organisation or other actor relies on to function.

**Ecosystem:** A dynamic complex of plant, animal and micro-organism communities and the non-living environment, interacting as a functional unit.

**Ecosystem services:** The contributions of ecosystems to the benefits that are used in economic and other human activity. These comprise: (a) provisioning services, which include any type of benefit that people can extract from nature; (b) cultural services, which include non-material services such as recreational activities, aesthetic inspiration, cultural identity and spiritual significance; and (c) regulating and maintenance services, which refers to the way in which ecosystems maintain and regulate the quality of land, air and water (e.g. through flood control). A list of ecosystem services, as recognised by the TNFD's 'Fundamental Concepts for Understanding Nature', is at page 77.

**Endangered species:** Species considered to be facing a very high risk of extinction in the wild.

**Environmental assets:** The naturally occurring living and non-living components of the Earth, together constituting the biophysical environment, which may provide benefits to humanity. A list of environmental assets, as recognised by the TNFD's 'Fundamental Concepts for Understanding Nature', is at page 77.

**Future Climate Related Scenario:** A scenario describes a path of development leading to a particular outcome. A climate change scenario describes a path of development leading to a set degree of rise in temperature above pre-industrial global average temperatures. Our climate scenarios are described in Chapter 4 of the IPL Climate Change Report (2022).

**Global Reporting Initiative (GRI):** a leading organisation in the sustainability field, promoting the use of sustainability reporting as a way for organisations to become more sustainable and contribute to sustainable development. GRI has pioneered and developed a comprehensive Sustainability Reporting Framework that is widely used around the world. To see the GRI indicators covered by our sustainability webpages and publications, see IPL's GRI Index and Data Supplement.

**Group:** The IPL Group, collectively comprising IPL and its subsidiaries.

**Impacts:** Changes in the state of nature which may result in changes to the capacity of nature to provide social and economic functions. Impacts can be positive of negative, and they may result from an organisation's or another party's actions, and may be direct, indirect, and cumulative.

**Impact drivers:** A measurable quantity of a natural resource that is used as a natural input to production, or a measurable non-product output of business activity (e.g. $CO_2$ emissions).

**ISSB:** The Trustees of the IFRS Foundation announced the formation of the International Sustainability Standards Board (ISSB) on 3 November 2021 at COP26 in Glasgow. The ISSB is developing – in the public interest – standards that will result in a high-quality, comprehensive global baseline of sustainability disclosures focused on the needs of investors and the financial markets.

**Key Biodiversity Area:** A site contributing significantly to the global persistence of biodiversity. A global list of Key Biodiversity Areas is curated by the KBA Partnership of leading global nature conservation organisations, and can be found at https://www.keybiodiversityareas.org.

**Material:** In the context of the GRI Reporting Framework, 'material' topics for a reporting organisation are those topics that have a direct or indirect impact on an organisation's ability to create, preserve or erode economic, environmental and social value for itself, its stakeholders and society at large.

**Megatrend:** Our materiality assessment defines a megatrend as a large, transformative global force that defines the future by having a far-reaching impact on business, economies, industries, societies and individuals. A megatrend is distinguished from other trends in that it cannot be stopped or significantly altered, even by powerful actors such as governments.

**NAIDOC Week:** An Australian observance lasting from the first Sunday in July until the following Sunday. The acronym NAIDOC stands for National Aborigines and Islanders Day Observance Committee.

**Natural capital:** The stock of renewable and non-renewable natural resources that combine to yield a flow of benefits to people. These include living and non-living entities such as plants, animals, air, water, soils and minerals.

**Nature:** The natural world, with an emphasis on the diversity of living organisms (including people) and their interactions among themselves and with their environment.

**Nature-related opportunities:** These can occur where (a) organisations avoid, reduce, mitigate or manage nature-related risks, or (b) through the strategic transformation of business models, products, services, markets and investments, allowing organisations to actively work to reverse the loss of nature (including by restoration, regeneration of nature and implementation of nature-based solutions).

**Nature-related risks:** These pertain to potential threats to an organisation and its sustained success, linked to their and wider society's dependencies on nature and nature impacts. These may include (a) nature-related physical risks (e.g. threats to an organisation from disruptions to natural systems, resulting in changes to living and non-living conditions that sustain the ecosystems on which businesses rely); (b) nature-related systemic risks (e.g. threats relating to the collapse of entire ecosystems, rather than a decline in part of an ecosystem); and (c) nature-related transition risks (e.g. threats to an organisation stemming from a misalignment between that organisation's strategy and management, and a changing regulatory, policy or societal landscape).

**Near miss:** An unplanned event that did not result in injury, illness or damage – but had the potential to do so. The aim of the investigation of 'near miss' events is to identify and mitigate root causes, providing a focus for improvement.

**NOx:** a generic term for the mono-nitrogen oxides NO and $NO_2$ (nitric oxide and nitrogen dioxide).

**$N_2O$:** Nitrous oxide (di-nitrogen oxide), listed as one of six greenhouse gases covered by the Kyoto Protocol and the Greenhouse Gas Protocol.

**Paris Agreement:** A global climate agreement that was reached under the United Nations Framework Convention on Climate Change (UNFCCC) at the 21st Conference of the Parties (COP21) in Paris (30 November to 12 December 2015) to limit average global temperature rise this century to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

**Physical risks:** Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns. Physical risks may have financial implications for organisations, such as direct damage to assets and indirect impacts from supply chain disruption. Organisations' financial performance may also be affected by changes in water availability, sourcing and quality; food security; and/or extreme temperature changes impacting organisations' premises, operations, supply chain, transport needs, and employee safety.

**Plant:** The equipment used to manufacture a specific product e.g. ammonia. There may be several plants on a single IPL site.

**Realms:** Major components of the living, natural world that differ fundamentally in ecosystem organisation and function. In the TNFD's framework, these are: land, freshwater, ocean and atmosphere.

**SafeGround:** IPL seeks to create a culture of SafeGround, which we define as 'an environment of psychological safety in which people feel safe to raise concerns and make suggestions'. It is an essential part of a safety culture.

**SASB:** The Sustainability Accounting Standards Board (SASB) Standards help companies disclose relevant sustainability information to their investors. Available for 77 industries, the SASB Standards identify the sustainability-related risks and opportunities most likely to affect an entity's cash flows, access to finance and cost of capital over the short, medium or long term.

**Scope 1 emissions:** Direct GHG emissions which occur from sources that are owned or controlled by the Group, for example emissions from combustion in owned or controlled boilers, furnaces, vehicles etc, and emissions from chemical production in owned or controlled process equipment.

**Scope 2 emissions:** Scope 2 emissions are GHG emissions which arise from the generation of purchased electricity consumed by the Group. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organisational boundary of the Group. scope 2 emissions physically occur at the facility where this electricity is generated.

**Scope 3 emissions:** A GHG emissions reporting category that allows for the treatment of indirect emissions (other than scope 1&2 emissions). scope 3 emissions are a consequence of the activities of the Group, but occur from sources not owned or controlled by the Group. Our scope 3 emissions and calculation methodology are reported in Appendices 3 and 4 of the IPL Climate Change Report (2022).

**Significant Environmental Incidents:** Environmental Incidents as assessed against IPL's internal risk matrix with actual consequences of 5 or higher on a 6-level scale. A Category 5 environmental incident is 'a major event or Environmental repeat non-compliance with regulatory, licence or permit conditions leading to prosecution or restriction of operations' and a Category 6 environmental incident is one which results in 'permanent or long-term impacts to water, land, biodiversity, air or ecosystems and requires significant remediation, rectification or investment in mitigation'.

**Site:** A single geographic location where IPL operations take place.

**SOx:** Sulphur oxide emissions, for example, sulphur dioxide ($SO_2$). Sulphur oxides arise from the burning of fossil fuels that contain sulphur and during the burning of sulphur to make sulphuric acid.

**Supply chains:** A sub-set of our value chain, referring to the companies who supply the inputs to our operations, such as raw materials for manufacturing, service providers and providers of other inputs such as electricity and water.

**Transition risk:** Transitioning to a lower-carbon economy may entail extensive policy, legal, technology and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organisations.

**TCFD:** The Financial Stability Board Taskforce on Climate-related Financial Disclosures (TCFD) is a market-driven initiative, set up to develop a set of recommendations for voluntary and consistent climate-related financial risk disclosures in mainstream filings.

**TNFD:** The Taskforce on Nature-related Financial Disclosures (TNFD) is a risk management and disclosure framework to enable organisations to report on and respond to nature-related risks. The TNFD comprises UN organisations, financial institutions and corporates with over US $20 trillion in assets. Since July 2021 it has progressively released four beta frameworks, and a final framework is scheduled to be released in September 2023.

**TRIFR:** Total Recordable Injury Frequency Rate – the number of recordable incidents per 200,000 hours worked; includes contractors unless otherwise indicated.

**UN SDGs:** The UN SDGs are a set of 17 goals and 169 targets adopted by world leaders at the United Nations to end poverty, fight inequality and tackle climate change by 2030. Although primarily designed for governments, the SDGs call for action by all countries and stakeholders.

**UNGC:** The UN Global Compact (UNGC) is the world's largest corporate sustainability initiative – transforming businesses and raising ambitions towards the achievement of societal goals. The UN Global Compact Network Australia (UNGCNA) is the Australian business-led network of the UN Global Compact.

**Value chain:** Our value chain includes our suppliers (and potentially their suppliers), our operations, our distribution channels, and our customers who are the end users of our products. Our supply chains (described above) are a subset of this.

**Water stress:** Water stress may refer to the availability, quality or accessibility of water in relation to human and ecological demands for water.

## Forward looking statements

This Report contains forward looking statements, including, but not limited to: statements regarding trends in commodity prices and supply and demand for commodities; assumed long-term scenarios; potential global responses to climate change; regulatory and policy developments; the development of certain technologies; the potential effect of possible future events on IPL and the plans, strategies and objectives of the organisation. Forward looking statements may be identified by the use of terminology, including, but not limited to, 'intend', 'aim', 'project', 'see', 'anticipate', 'expect', 'estimate', 'plan', 'objective', 'believe', 'may', 'should', 'will', 'would', 'continue', or similar words. These statements refer to future results, asset condition or financial conditions, or provide other forward looking information. The forward looking statements in this Report are based on the information available as at the date of this Report and/or the date of the Group's planning processes or scenario analysis processes.

There are inherent limitations with the use of forward looking statements and in particular where they relate to scenario analysis, and it is difficult to predict which, if any, of the scenarios might eventuate. Scenarios do not constitute definitive outcomes for IPL. Scenario analysis relies on a range of assumptions that may or may not be, or prove to be, correct and may or may not eventuate, and scenarios may be impacted by additional factors to the assumptions disclosed. Additionally, forward looking statements are not guarantees or predictions of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this Report. IPL cautions against reliance on any forward looking statements or guidance.

To the extent permissible by law, IPL disclaims all liability to any third party who uses or relies on any forward looking statements or guidance in this Report. For example, future decarbonisation opportunities identified and described in this Report will be based, in part, upon the availability and reliability of alternative and developing technologies, and incentives and support from government bodies and the industry, which may differ from assumptions, estimates and forecasts. These variations may affect the timing or the feasibility of the development of a particular technology or project, and its subsequent adoption and use by IPL or the broader industry more generally.

Except as required by applicable regulations or by law, IPL does not undertake any obligation to publicly update or review any forward looking statements, whether as a result of new information or future events. Forward looking statements are current only as at the earlier of the date of this Report or the date the planning process assumptions or scenario analysis assumptions were adopted, as relevant and applicable. Past performance cannot be relied on as a guide to future performance.

The views expressed in this Report contain information that has been derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information. This Report should not be relied upon as a recommendation or forecast by IPL.