



## **SUSTAINABILITY REPORT 2013**



Listed on the Australian Securities Exchange (ASX code: IPL) since 2003



S&P/ASX listed Company (ASX: IPL)



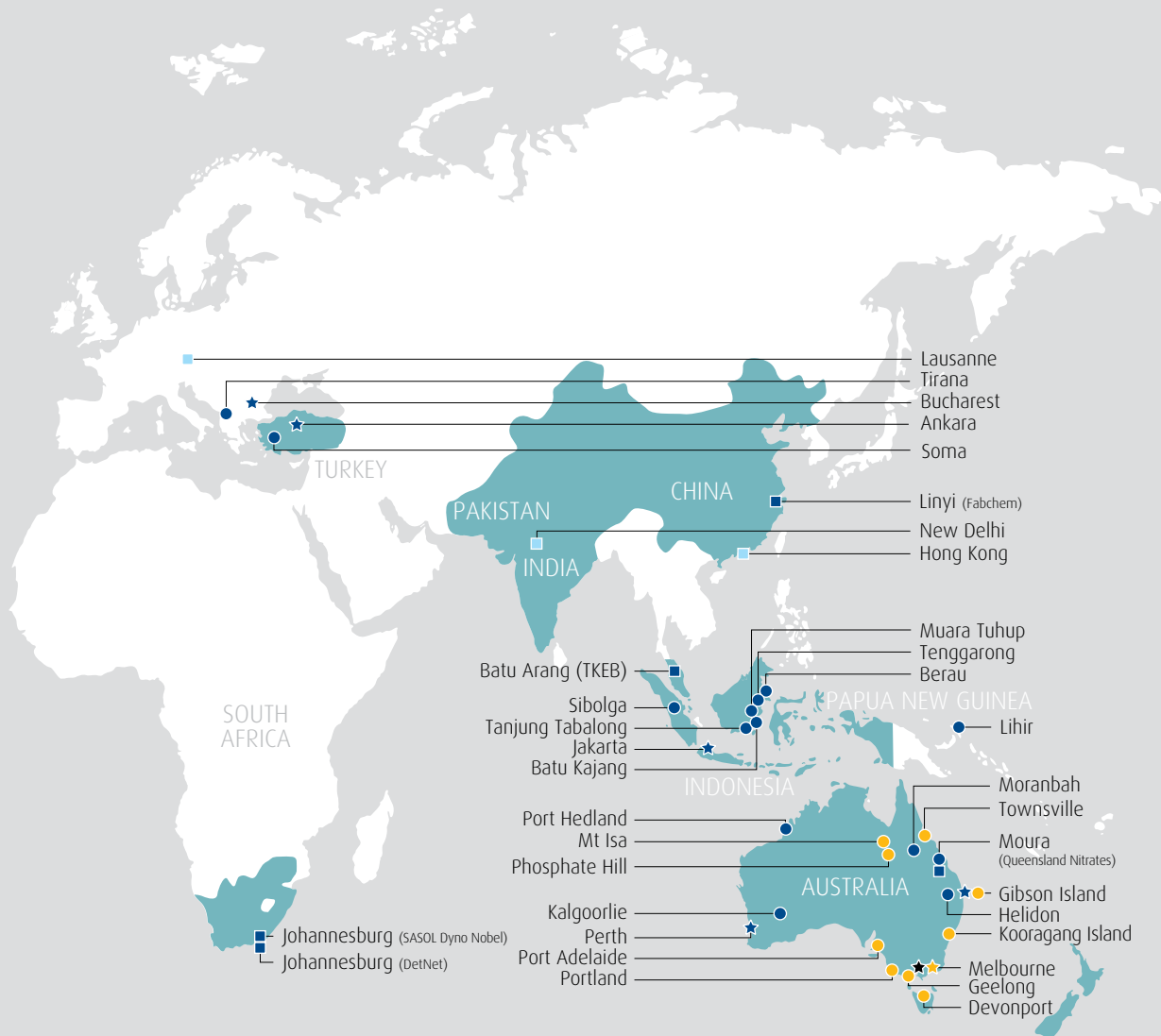
Annual sales revenue of \$3,439.2 million for 2012/13 financial year



IPL owns and operates manufacturing plants in the US, Canada, Turkey, Australia, Mexico, Chile and Indonesia



Joint venture operations, including in South Africa, Malaysia, China and India



## About Incitec Pivot

Incitec Pivot Limited (IPL) is a leading global company headquartered in Melbourne, Australia, which manufactures, markets and distributes a range of industrial explosives, fertilisers and related products and services to customers around the world. A leader in its chosen markets, the Company holds a portfolio of recognised and trusted brands and is the number one supplier of fertilisers in Australia and the number one supplier of industrial explosives, related products and services in North America.

IPL is a public company, trading on the Australian Securities Exchange. It operates two major businesses, Dyno Nobel and Incitec Pivot Fertilisers. Dyno Nobel, with sites in the US and Canada

(Dyno Nobel North America), Turkey, Romania, Albania, Mexico and Chile (Dyno Nobel International), and Indonesia and Australia (Dyno Nobel Asia Pacific) supplies explosives, related products and services to mining, quarrying and construction customers around the world. The business includes Dyno Consult, a specialist team of drill and blast consultants and Dyno Nobel Transport, a full-service carrier, transporting explosives and hazardous materials throughout the United States and Canada.

Incitec Pivot Fertilisers manufactures and distributes a range of plant nutrients in Australia and sources and distributes internationally through Southern Cross International and its Hong Kong-based joint venture Quantum Fertilisers.

## Our approach to sustainability

Our sustainability agenda is driven by our Vision and seven Values, which all employees live by.

We recognise that sustainable growth requires us to balance our economic performance with our environmental and social responsibilities. These responsibilities include being a good corporate citizen and operating ethically. They include ensuring good governance in our day-to-day business activities and behaving with honesty and integrity in our interactions with our stakeholders.

Our approach to sustainability includes the areas of: workplace health and safety, environmental impacts and resource efficiency, community impacts and engagement, labour practices and our products & services.





Over 5,200 employees at 30 September 2013



As at 30 September 2013, 13.3% females in management roles (2012: 11.8%)



Supply approximately 2 million tonnes of fertiliser per annum



Supply approximately 1.6 million tonnes of ammonium nitrate explosive per annum



Provide agronomic services in Australia, completing 71,000 soil and plant tests each year



#### Incitec Pivot Limited

★ Company Headquarters

#### Incitec Pivot Fertilisers

★ Corporate Office

● Manufacturing/Distribution

■ Quantum Fertilisers

#### Dyno Nobel

★ Corporate Office

● Manufacturing/Distribution

■ Joint Ventures/Investments

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#### About this Report

This Report covers the 12 month period from 1 October 2012 to 30 September 2013, the Company's financial year. We publish an annual sustainability report so that stakeholders can better understand our social, environmental and safety focus and performance. Our last report was published in December 2012.

This Report covers the performance of IPL and its wholly owned subsidiaries and the activities over which we have operational control for all or part of the financial year ended 30 September 2013. Together, the 2013 Sustainability Report and the 2013 Annual Report provide the full account of IPL's performance for the period.

Previous reports are available for download at [www.incitecpivot.com.au](http://www.incitecpivot.com.au). We recognise the need to report on issues most relevant to our business and our key stakeholders, and we welcome feedback on this Report and our sustainability progress. Please direct any questions or comments regarding this Report or its content to us via [sustainability.feedback@incitecpivot.com.au](mailto:sustainability.feedback@incitecpivot.com.au).

# Our sustainability performance



## Sustainability Scorecard

Indicator	Unit of measure	2010/11	2011/12	2012/13
<b>Environment</b>				
<b>Emissions</b>				
Direct GHG emissions (Scope 1)	Million tonnes CO <sub>2</sub> e	1.9	2.0	2.4
Indirect GHG emissions (Scope 2)		0.4	0.4	0.4
Total GHG emissions <sup>1</sup>		2.3	2.4	2.8
Proportion of energy derived from fossil fuels <sup>2</sup>	%	95% approx	95% approx	95% approx
<b>Energy</b>				
Global direct energy consumption	GJ	–	36,159,511	42,796,114
<b>Water</b>				
Global water use	GL	–	43.4 <sup>3</sup>	43.2
Australian water use	GL	10.9 <sup>3</sup>	11.9	10.7
Global water discharge	GL	–	30.4	32.7
<b>Waste</b>				
Global solid waste	kt	–	8.3	8.7
Australian solid waste	kt	4.3	3.7	3.7
Global solid chemical waste	kt	–	2305.3	1,877.7
Australian solid chemical waste	kt	2,289.0	2305.0	1,877.2
Global liquid waste	GL	–	19.6	18.6
Australian liquid waste	GL	14.7	15.0	12.5
<b>Environmental compliance</b>				
Environmental licence non-compliance incidents (category 2+) <sup>4</sup>		9	13	16
Loss of containment (category 2+) <sup>4</sup>		11	72 <sup>3</sup>	142 <sup>4</sup>
<b>Safety</b>				
Total Recordable Injury Frequency Rate		1.24	1.45	1.16
Fatalities		0	0	2
<b>People</b>				
<b>Total workforce</b> (excluding contractors)		4,887	5,162	5,247
Americas		2,723	2,786	2,684
Asia Pacific		1,873	2,121	2,293
Europe		291	255	270
<b>Gender – Diversity</b> (% of women)				
Board		12%	14.3%	14.3%
Executive		10%	12.5%	12.5%
Management		13.7%	11.8%	13.3%
Global		14.2%	13.6%	15.0%
<b>Direct Economic Value Generated and Distributed</b>				
<b>A. Direct economic value generated</b>				
Revenues	\$Mil	3,587.5	3,533.1	3,439.2
<b>B. Economic value distributed</b>				
Operating costs, including payments to suppliers, non-strategic investments and royalties		3,381.8	3,539.1	3,461.5
Employee wages and benefits: total monetary outflows for employees (current payments, not future commitments)		2,629.5	2,694.6	2,490.7
Payments to providers of capital, including dividends and interest		538.9	523.4	578.5
Government taxes (TOTAL) (income tax, payroll tax, Australian goods and services, fringe benefits taxes and Australian fuel tax credits)		151.4	187.3	203.6
Voluntary community investments (including donations of cash, in-kind support and employee time)		62.0	133.8	188.1
		0.8	0.4	0.6
<b>C. Economic value retained (A-B)</b>				
		205.7	(6.0)	(22.3)

The Sustainability Scorecard shows our performance across a range of economic, social and environmental indicators for the financial years 2010/11, 2011/12 and 2012/13.

### Sustainability keystone projects

Five projects were identified in 2010 as the foundation of the sustainability agenda, underpinning our commitment to sustainability. These projects are progressing well and status updates are provided below and in the Report.

#### Keystone Project

1. Implement targets to reduce use of non-renewable resources in our manufacturing operations.  
**Status – In progress.** Read more on page 25
2. Create guidelines for IPL's community investment activity, and implement internal and external reporting process.  
**Status – Complete.** Read more on page 19
3. Encourage a more diverse workforce by setting up an indigenous employment program and support framework to facilitate participation in customer or government programs in remote regions.  
**Status – Complete.** Read more on page 43
4. In our Fertilisers business, develop a joint research project on enhanced fertilisers to reduce environmental impacts of fertiliser use.  
**Status – Complete.** Read more on page 30
5. In our Explosives business, develop products that use recycled waste oil and encourage responsible use.  
**Status – Complete.** Read more on page 33

Government taxes paid per country (\$Mil) <sup>5</sup>	2012/13
Australia	136.80
United States	18.86
Mexico	8.58
Canada	3.75
Chile	.04
Hong Kong	1.60
Turkey	7.44
Indonesia	.81
Papua New Guinea	2.19

<sup>5</sup> Reported for the first time in 2012/13.

<sup>1</sup> Scope 1 + 2. <sup>2</sup> Excluding natural gas used as production raw material. <sup>3</sup> Restated, refer to page 42 for details.  
<sup>4</sup> Categories have been redefined in 2012/13. Refer to descriptions of categories on page 26.

## A message from the Managing Director & CEO



*I'm pleased to present the 2013 Incitec Pivot Limited Sustainability Report. This year marks the end of our 2010–2013 Sustainability Agenda and I am gratified at the substantial progress we have made since its launch three years ago.*

Approved by our Board and Executive Team in 2010, our Sustainability Agenda has provided a blueprint for delivering on our Sustainability commitment to "Use Less, Get Close and Be Responsible". It came to life through the implementation of five 'keystone' projects aligned to our vision and aimed at living our Values of *Think Customer, Value People, and Care for the Community & Our Environment*.

Particular highlights this year include the implementation of our community programs and our research and development projects, the success of our indigenous employment and diversity programs, where we have met our targets, and our progress towards meeting resource efficiency targets in Australia.

For the second consecutive year, our hard work has been recognised through our inclusion in the 2013 Dow Jones Sustainability Asia Pacific Index. Moreover, our rating in the index improved significantly this year, with IPL being recognised as the market leader in our segment in Australia.

Despite our successes, the 2013 year has also been one of tragedy for IPL. This year we experienced the very sad loss of two colleagues, one an employee in North America and the other a contractor working on one of our sites in Australia. These fatalities have had a profound impact on our people and, of course, the families of the two men. If there is any positive, it's that this loss has made us more determined than ever to work towards our goal of Zero Harm. We will achieve this through a focus on four key areas known as the 4Ps: Passionate Leadership, People, Procedures and Plant and through each employee's individual commitment to make safety their number one priority.

Immediately following these tragic incidents a global Safety Stand-down took place across all manufacturing plants, sites and offices across the Group, enabling employees to discuss their personal commitment to Zero Harm and the 4Ps and also to contribute their ideas for how we, as a Group, can improve our safety performance. These stand-downs focussed us on our aim to reach world class standards in our safety performance, which means a total recordable incident rate of less than one. In 2012/13 our incident rate was 1.16, an improvement on 1.45 in 2011/12.

Another important safety initiative introduced this year was our Safety Partners training program, which has commenced roll-out across our Manufacturing, Fertilisers and Explosives divisions. Safety Partners is an innovative group-wide program that incorporates a unique blend of best-practice processes aimed at creating a deeper relationship between employees, leaders and safety. This year we have also standardised our HSE governance processes and procedures, establishing a Zero Harm Council governance structure across the Group, updating and streamlining our global HSEC standards, and establishing a consistent global approach to personal risk assessment.

Beyond our safety performance, we have faced some short-term challenges as a business, due to adverse external factors, which have required us to focus our efforts on achieving ongoing economic sustainability. The next phase of our sustainability journey will be key to this new paradigm. Next year, as we set our 2014–2016 Sustainability Agenda, the focus will be to drive sustainability outcomes from within our business units and functional divisions, utilising the processes being established through our Business Excellence (BEx) program and aligning delivery to our business strategy.

We will continue on our journey towards Zero Harm and to develop our people and the Human Resources processes we require to be a world class company. We will work with our suppliers to drive sustainability outcomes in our supply chain and continue to create innovative solutions for our customers. We will demonstrate care for our communities and the environment, fostering community engagement and achieving environmental outcomes locally, where community needs and environmental challenges are best understood and addressed. We will pursue projects that deliver economic, as well as environmental and social outcomes.

Sustainability has increasingly become part of how we do things at IPL and I look forward to leading IPL on our continued journey towards business sustainability.

**James Fazzino**  
Managing Director & CEO



# Our approach

## Our approach to sustainability

At IPL we remain committed to creating long-term economic value while caring for our people, communities and environment. We recognise that sustainable growth requires us to balance our economic performance with our environmental and social responsibilities. These responsibilities include being a good corporate citizen and operating ethically. They include ensuring good governance in our day-to-day business activities and behaving with honesty and integrity in our interactions with our stakeholders.

Driven by our Values of *Zero Harm for Everyone, Everywhere* and *Care for the Community and our Environment*, IPL has completed the first phase of its Sustainability Journey this year.

Our 2010–2013 Sustainability Agenda provided a blueprint for delivering on our commitment to “Use Less, Get Close and Be Responsible”.

Our agenda came to life in the form of five keystone projects, which over the past three years have seen us implement targets to reduce use of non-renewable resources in our Australian manufacturing operations; establish a Community Investment Framework, which has delivered many benefits to our local communities and improved our governance of our community spend; invest in innovative research projects that have delivered positive environmental and commercial outcomes for both IPL and our customers; and implement a successful indigenous employment program.

Next year, IPL will enter the next phase of its Sustainability Journey, beginning with the development of its 2014–2016 Sustainability Agenda. The agenda will be developed in accordance with sustainability best-practices, analysis of benchmarking data, internal priorities and stakeholder feedback. The agenda will also be aligned to the continuous improvement principles being embedded across the Group as part of BEx (refer to next column for details).

In March this year, IPL undertook a Sustainability Investor Briefing to inform investors of IPL’s sustainability agenda, material issues, governance framework and performance, as well as to seek feedback on the sustainability issues of most interest to investors. Feedback from the session was included in the materiality assessment for this report.

## Continuous Improvement through BEx

Business Excellence (BEx) is IPL’s system for driving long term culture change and continuous improvement within our business. Based on LEAN principles, BEx is strongly underpinned by workplace health and safety, environment management and sustainability.

BEx is assisting us in being more efficient in our use of costly resources, achieving closer community engagement in our areas of operation, attracting, engaging and empowering the best talent, driving product innovation and in considering our business risks more broadly.

This year, BEx has been rolled out to all of our major manufacturing operations, as well as across our Supply Chain and Logistics functions, delivering in excess of A\$39m in benefits from the continuous improvement initiatives and ongoing efficiency improvements that our people generate using BEx methodology.



## VISION STATEMENT

To be the best in our markets, delivering Zero Harm and outstanding business performance through our people, our culture and our customer focus.

## VALUES



## Our approach to reporting

This Report covers the 12 month period from 1 October 2012 to 30 September 2013, being the Company's financial year. We publish an annual sustainability report so that stakeholders can better understand our social, environmental and safety focus and performance. The last report was published in December 2012.

This Report covers the performance of IPL and its wholly owned subsidiaries, as well as the activities over which we have had operational control for all or part of the financial year ended 30 September 2013. Together, the 2013 Sustainability Report and the 2013 Annual Report provide the full account of IPL's performance for the period.

During the year we also provide information to organisations that help investors to understand the economic, social and environmental performance of our company, including the Dow Jones Sustainability Indices and Carbon Disclosure Project.

## Content selection process

Our reporting focuses on five areas: workplace health and safety, environmental impacts and resource efficiency, community impacts and engagement, labour practices and our products & services. Within each of these areas we used the content selection process below to determine the topics most important to our stakeholders and our business:

1. IDENTIFY – We identified the stakeholders who have a direct relationship with, or are impacted by, our business. These were: customers, joint venture partners, employees & contractors, government & regulators, local communities, suppliers and investors.
2. COLLECT – We collected information by researching publicly available information, analysing business communications and engaging with key stakeholders. This year, we held a Sustainability Investor Briefing in March to update key investors on our sustainability strategy and progress, and to gather feedback on our approach. The issues and queries raised through this briefing were incorporated in to this year's materiality assessment. We also identified topics of significance to our business by utilising established internal processes.
3. ANALYSE – The information was analysed to understand the topics important to different stakeholder groups.
4. PRIORITISE – The topics were prioritised according to the level of importance to stakeholders and to our business.
5. RATIFY – Our Executive Team then reviewed and ratified the identified topics.
6. REPORT – This Report, together with our Annual Report and website (collectively, our public reporting), cover the topics of medium and high relevance to our stakeholders and our business.

Mount Isa site, Queensland, Australia



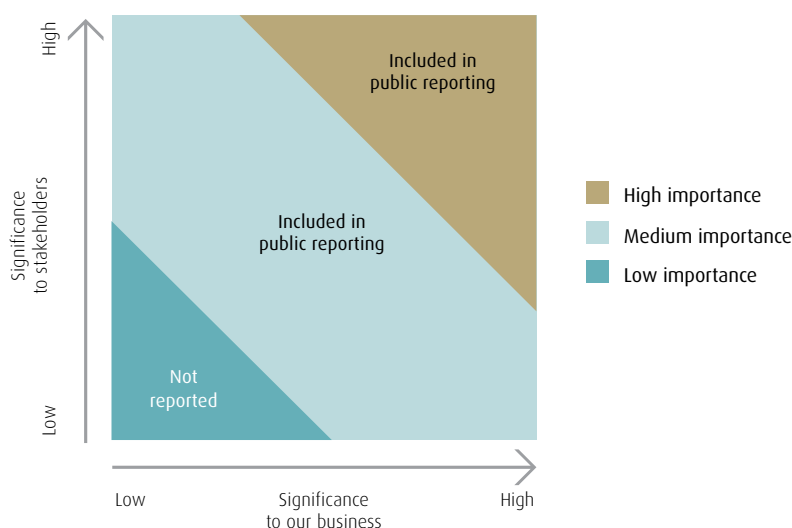
## Our sustainability performance recognised

We have been included in the Dow Jones Sustainability Indices (DJSI) since 2010 and our performance is benchmarked against peers in the global 'Chemicals' sector. This year our overall performance rating has increased significantly and we have strengthened our position in the Dow Jones Sustainability Asia Pacific Index, recognition of our improving sustainability performance. The DJSI is widely recognised as the leading reference point in the growing field of sustainability investing due to the robustness of the assessment process.

### DJSI Corporate Sustainability Assessment Results (%)

Dimension	2010	2011	2012	2013
Economic	61	61	59	70
Environmental	51	50	51	59
Social	37	45	63	68
<b>Total for IPL</b>	<b>49</b>	<b>51</b>	<b>58</b>	<b>66</b>
Average for the 'Chemicals' sector	55	57	55	52

Source: DJSI Corporate Sustainability Assessment Results from the relevant years





## How we operate



*We are committed to achieving and demonstrating the highest standards of corporate governance.*

*Our governance framework and practices are consistent with the Australian Securities Exchange (ASX) Corporate Governance Council's Corporate Governance Principles and Recommendations.*

*Read more in our 2013 Annual Report, available on our website, [www.incitecpivot.com.au](http://www.incitecpivot.com.au).*

## Governance

Our highest governing body is the Board of Directors. The Board is responsible for charting the direction, policies, strategies and financial objectives of the Company. The Board serves the interests of the Company and its shareholders, as well as our other stakeholders such as employees, customers and the community, in a manner designed to create and continue to build sustainable value.

The Board operates in accordance with the principles set out in its Board Charter. A copy of the Board Charter is available on the corporate governance section of the Company's website, [www.incitecpivot.com.au/about-us/about-incitec-pivot-limited/corporate-governance](http://www.incitecpivot.com.au/about-us/about-incitec-pivot-limited/corporate-governance).

The Charter sets out the Board's own tasks and activities, as well as the matters it has reserved for its own consideration and decision-making.

To assist the Board in meeting its responsibilities, the Board currently has the following four Committees:

- the Audit and Risk Management Committee;
- the Nominations Committee;
- the Remuneration Committee; and
- the Health, Safety, Environment and Community Committee

Day-to-day management of Company affairs and the implementation of the corporate strategy and policy initiatives are formally delegated to the Managing Director & CEO.

The Managing Director & CEO and his direct reports form the Executive Team. This team also has a sub-committee called the Zero Harm Council.

Responsibility for sustainability strategy and governance resides with the Executive Team, advised by the Corporate Sustainability Team. The Corporate Sustainability Team is led by the General Manager Global Sustainability & Carbon, who reports to the Chief Financial Officer, thereby providing alignment with the financial performance for the Company and overall risk management.

The team's responsibilities include sustainability reporting and advocacy, supporting the development of sustainability strategy and policy and liaising with the business to ensure sustainable practices are implemented globally.

Operational responsibility for our priority areas of: workplace health and safety, environmental impacts and resource efficiency, community impact and engagement, labour practices and our products & services resides with functional areas throughout the business.







## Key systems and policies

We are committed to operating to the highest standards of ethical behaviour and honesty, with full regard for the health and safety of our employees, customers, the wider community and the environment.

As part of our commitment to operating to the highest standards of ethical behaviour, we have codes of conduct that set the ethical standards for directors, senior management and employees. The codes describe core principles designed to ensure ethical conduct is maintained in the interests of shareholders and other stakeholders.

In particular, our key codes of conduct, copies of which are available on the corporate governance section of our website, are:

- **Code of Ethics – Compliance Policies and Guide** – is a code of conduct for all employees. The Code's key principles require employees to comply with the letter and spirit of the laws affecting our business, as well as our policies and codes; to act honestly and with integrity, and to strive to earn and maintain the respect and trust of co-employees, customers and the wider community; to use our resources, including information systems, in an appropriate and responsible way; to work safely and with due regard for the safety and wellbeing of fellow employees, contractors, customers and all persons affected by our operations or products; to avoid situations which involve or may involve a conflict between their personal interests and the interests of our business; to have due regard for cultural diversity in the workplace; and to respect the environment and ensure that work activities are managed in an acceptable manner so as to give benefit to society.
- **Code of Conduct for Directors and Senior Management** – sets out additional ethical standards for directors and senior management reporting to the Managing Director & CEO.
- **Health, Safety, Environment & Community Policy** – sets out our commitment to our Values of “Zero Harm for Everyone Everywhere” and “Care for the Community and our Environment”. The Policy provides that we establish and maintain health and safety management standards and systems in compliance with relevant industry standards and regulatory requirements, and that we will provide a safe and healthy working environment. The Policy also provides for us to conduct our operations in compliance with all relevant environmental licences and regulations, and to strive to be a valued corporate citizen in the communities in which we operate.
- **Anti-Bribery and Improper Payments Policy** – prohibits the making of unlawful or improper payments to any individual or entity. The policy also outlines the processes for ensuring that appropriate controls are implemented in relation to third parties who are engaged to act on behalf of us. The Anti-Bribery and Improper Payments Policy forms part of, and is supported by, the Fraud and Corruption Control framework.
- **Sanctions Policy** – outlines the expected standards of conduct relevant to the Group's compliance with Australian and international sanctions laws when engaging in international trade. This includes engagement in appropriate due diligence in relation to third parties, transactions or activities that present a potential risk in relation to sanctions laws compliance.
- **Group Risk Policy and risk management process** – risk is managed within a comprehensive risk management process which is consistent with the Australian/New Zealand Standard for Risk Management (AS/NZS ISO 31000:2009). A key element of this risk management process is the Board's assessment of risk, which is based on the level of risk we are able to sustain in achieving the corporate objective of delivering value to shareholders. Risks are identified, analysed and prioritised using common methodologies and risk controls are designed and implemented having regard to the overall corporate strategy.
- **Sustainable Communities Policy** – includes our commitment to listen to and work with the community, strive to be a valued corporate citizen in the communities where we operate; and respect our neighbours, their values and cultural heritage and be considerate to them in carrying out our operations.





## Overview

*Working towards our goal of 'Zero Harm for Everyone, Everywhere' is our number one priority. We are committed to delivering the highest standards of health and safety performance to ensure the wellbeing of our people, both at work and at home.*

## 2013 highlights

- We implemented a whole of business Zero Harm Council governance structure
- We implemented a global approach to personal risk assessment and produced risk assessment training materials in nine languages
- We streamlined our global Health, Safety, Environment and Community (HSEC) Standards, reducing the number of standards from 53 to 18, for implementation in 2013/14
- We reviewed and improved our incident reporting and investigation process and simplified site-level reporting
- We linked a component of employee remuneration to safety performance (see page 37 of our People section for more information)
- We commenced roll-out of our Safety Partners training program across our Manufacturing, Fertilisers and Explosives divisions
- We achieved a Total Recordable Injury Frequency Rate for 2012/13 of 1.16, the lowest on record since the acquisition of our explosives business in 2008

## Key challenges and opportunities

Our key workplace health and safety challenges and opportunities include:

- Achieving Zero Harm in a risk inherent manufacturing environment
- Embedding our new HSEC Standards and ensuring local procedures are updated to reflect our strengthened requirements
- Refining our internal audit protocol to reflect our updated HSEC standards and move to a risk-based audit approach
- Providing support to our smaller sites to meet Group and regulatory requirements
- Continued TRIFR improvement through behavioural safety training, identifying the root causes of near misses and encouraging incident reporting

## Strategic priorities

In line with our HSE Strategy Review undertaken this year, our next steps towards achieving Zero Harm are:

- Updating our process safety documentation and approach to hazard studies
- Demonstrating a continuous reduction in injury rates year-on-year
- Developing site-specific process safety metrics
- Training targeted employees in the Safety Partner program
- Ensuring that all significant risks are fully assessed, understood and mitigated



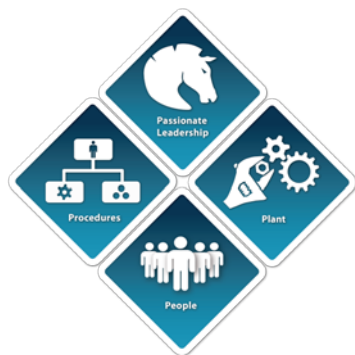


## Our approach

Our approach to workplace to health and safety is implemented via our HSE Strategy which focusses on four key areas referred to as the '4Ps': Passionate Leadership, People, Procedures and Plant.

We believe that safety performance is a result of investment in each of these four areas. We are working to further develop a culture of passionate leadership, effective procedures, well maintained plants and equipment, and, most of all, engagement from our people. Our employees, with all the skills, knowledge and expertise they bring and their capacity to see and manage risks, are a critical factor in achieving Zero Harm.

Our HSE strategy and approach is underpinned by our Health, Safety, Environment and Community Policy (available at [www.incitecpivot.com.au](http://www.incitecpivot.com.au)).



### Passionate Leadership

Leaders take responsibility for the safety of their people and create the safety culture in which Zero Harm is achievable. Passionate Leadership is the most important of the 4Ps. We have a governance structure in place to ensure a safety focus across the organisation.

The Board's Health, Safety, Environment and Community (HSEC) Committee assists the Board in its oversight of health, safety and environment matters arising out of our activities as they may affect employees, contractors, and the local communities in which we operate.

The Vice President of Health, Safety and Environment is accountable for advising the Managing Director & CEO and Executive Team on best practice strategies for health, safety and environmental improvement. The role supports the organisation in developing and delivering the health and safety strategy and works with a Group-wide network of safety professionals and operational leaders to achieve our goals and support line management in improving our health and safety performance.

Regional safety managers provide advice and support to line management, to enable them to make the most effective use of resources, by sharing best practices, and standardising, streamlining and coordinating health and safety activities across the Group.

Last year, the IPL Board signed off on a new 5-year HSE Strategy for the Group. This year we focused on communicating the Strategy across the organisation and implementing the challenging commitments. In line with the BEX continuous improvement process of Plan > Do > Check > Act, a review of our progress against the strategy's key indicators was undertaken in June this year. Additional actions were identified and incorporated into the Strategy to further assist us to achieve our goal of Zero Harm.

The Zero Harm Council (ZHC), chaired by our Managing Director & CEO and consisting of all members of the Executive Team, the Chief Risk Officer and Vice President Health, Safety & Environment, is accountable for reviewing health, safety and environmental performance. A number of Zero Harm sub-committees have been established specifically to target aspects of our HSEC management system where opportunities for improvement have been identified.

Standardised Zero Harm agendas and common metrics have been cascaded to our Business Units and major sites in 2012/13 and every business unit and site across the Group has developed its own, fully aligned Zero Harm Council and action plan.

To support our safety professionals in their roles a Health, Safety and Environmental (HSE) Functional Capability Framework was developed this year to define the minimum professional and behavioural competencies for each level within our HSE function. Based on this framework, a HSE Functional Capability Assessment template was developed and piloted this year, and will be rolled out globally in 2014. The assessment has been designed to help to identify the level of competency of our HSE professionals in four key areas: HSE knowledge, HSE core processes, understanding the business and partnering with the business.

The tool will help our HSE team to identify key development areas and career paths. It will enable managers to compare their employees' knowledge and skills against their current and potential future roles, so that development plans can be tailored to ensure the right people, with the right skills, are in the right roles to meet the needs of the Group. Plans are also in place to include Process Safety Management (PSM) considerations within the skills mapping function of our Learning Management System, to ensure that any PSM knowledge gaps are also addressed.

On a day-to-day operational level, our leaders are expected to consistently demonstrate and communicate high standards of behaviour and operating discipline and promotion of our Zero Harm Value. They must take proactive action to continuously improve our safety performance and use both leading and lagging indicators to monitor that performance.

### People (behaviours)

Personal responsibility at all levels is integral to promoting continuous health and safety improvement across the Group. We are embedding this culture through BEX and specific training, which will be supplemented with the use of techniques such as safety observations, and incident and near miss investigations to share learnings.

We recognise that personal attitude plays a major role in workplace safety. This year we rolled out two simple, best-practice tools, Take5! and Safe Act Observation (SAO), globally. Already used at many of our sites, Take5! and SAO this year became the standard risk analysis tools across the Group. Both processes require employees to take responsibility for their own safety, as well as that of their colleagues.

Take5! is the process for conducting a personal rapid hazard assessment before starting work. It ensures that employees are aware of any risks and have put controls in place to make it safe to proceed. This tool is used in conjunction with Job Safety Analyses (JSAs) and existing risk-assessment processes.

SAO is a step-by-step process for evaluating safe work behaviours, whereby team members are observed performing routine tasks in their normal work environment. It is collaborative and provides positive reinforcement, and feedback to ensure that all employees work as safely and efficiently as possible.

Take5! and SAO booklets and training materials have been translated and rolled out in both presentation and interactive online formats to ensure ease of access for all employees across the Group.

A global behavioral safety training program called 'Safety Partners' was also introduced this year. Safety Partners is an innovative program that incorporates a unique blend of IPL's Leadership, BEX and Sentis's Zero Incident Process (ZIP) training content.

The initial program is based on the concept of how people think, which invariably impacts on what they do. By giving attention to individual attitudes and behaviours we are able to influence the results we achieve on and off the job. Ultimately, this approach will help to influence our attitude towards safety, understanding what is truly important to us and creating a personal safety action plan.

Safety Partners is about creating a deeper relationship between employees, leaders and safety to deliver Zero Harm. The program has been rolled out across our Manufacturing, Explosives and Fertilisers divisions this year.

So far, 529 of our employees have completed the two day Safety Partner training, which will continue to be rolled out across the business in 2014.

## WORKPLACE HEALTH & SAFETY

Employees also receive safety training as part of their induction process, which is compulsory for all new employees (including contractors whose duration of engagement exceeds 40 hours). The first day of this process includes the provision of site safety information as well as discussion and sign off on our Health, Safety, Environment and Community Charter. Our 'safety non-negotiables' as described in the 'Rules to Live By' are clearly communicated at induction and reinforced by managers.

We also use the '5S' approach to workplace efficiency and safety hazard removal. 5S is one of the business improvement training programs associated with BEx.

### Procedures

Our HSEC management system is a key tool underpinning safety performance at all levels and across all functions.

In 2012/13 we simplified and streamlined our global HSEC Standards, a key component of our Safety Management System, reducing the number of standards from 53 to 18.

While our Standards continue to contain our strict requirements for process and personal performance, the review has simplified and clarified our expectations. Our new global HSE standards are aligned to ISO14001, OHSAS 18001, ISO 31000 and AS 4801 international standards, as well as American Chemistry Council Responsible Care and Centre for Chemical Process Safety Risk Based Process Safety standards.

The revised Standards will be rolled out across the Group in 2014. A verification process is also planned for late in the financial year to check that our sites are well informed about the changes.

Our HSE audit protocol is being redeveloped to reflect the revised Standards. We are moving to a risk-based audit approach, from 2014 onwards focus will be given to ensuring effective control of catastrophic risks.

In 2012/13 we reviewed the key HSE risks posed by each business unit. The findings will form the basis of audit protocol development for each site. In 2014 we will work to further improve our capacity in catastrophic risk assessment and monitoring the effectiveness of our controls for high consequence hazards. In addition to our risk-based approach, our sites will continue to be required to comply with our HSE Standards and all relevant regulatory requirements.

We have also standardised our risk management framework for use in all areas of the business, such as operational activities, major projects, capital prioritisation and business risks. All relevant documentation and work processes are being updated to reflect the standardisation and will be re-launched to complement the revised HSEC Standards next year.

Our global Contractor Management Standard was revised this year and third party audits have been undertaken against a best practice model.

In 2012/13 we focused on improving our incident reporting processes and statistics, aiming to ensure that all near miss and actual incidents are reported and reviewed, and effective responses to root causes are put in place.

To track and monitor our HSE performance, we use a global HSE reporting system called SHAERS (Safety, Health and Environment Reporting System). Incident reporting and analysis is key to our ability to continuously improve our safety practices. By recording incidents – be they injuries, environmental, process safety, quality or even near misses – we gain valuable insights into the safety hazards faced by our people across all of our sites.

A key deliverable of the HSE Strategy this year has been an upgrade to the SHAERS system. The upgrade has significantly improved the percentage of near miss incidents recorded, with near miss reporting accounting for 70 percent of all HSE incidents reported this year, a pleasing increase from 22 percent last year. We encourage near miss reporting as an important means of identifying and avoiding harmful incidents in our workplaces. These improvements were due to efforts made to streamline the incident reporting process and make the system interface more user-friendly. Data extracted from SHAERS is reported to the Board and Executive Team on a monthly basis.

In 2012/13 we also changed our definition of higher category process safety incidents to reflect the system defined by the Center for Chemical Process Safety (CCPS). This has standardised our system for reporting of process safety incidents and enabled better tracking and review of any high category events recorded.

In the US, the Federal Government's Occupational Safety and Health Administration (OSHA) re-validated the Process Hazard Analysis documentation for our major sites, confirming our compliance with local regulations.

### Plant

Given the nature of the risks involved, ensuring the safety and integrity of our major chemical manufacturing facilities is paramount. This means making sure our facilities are well designed, safely operated, properly inspected and maintained, and meet regulatory requirements.

Our governance of process safety was strengthened this year. We have developed our management approach, defined roles and responsibilities, introduced an audit framework and established metrics for monitoring and assessing performance. The Process Safety Management (PSM) Sub-Committee of our Zero Harm Council has overseen the new

developments, an important step forward in our standardised approach to minimising the risk of on-site incidents.

Our global Process Safety Standard was released this year, supported by an internal awareness campaign including bulletins, seminars, and toolbox talks. Our major sites participated in an internal benchmarking exercise against the Standard and equipment reliability and integrity was highlighted as an area for ongoing focus and diligence, and is a focus of our PSM Strategy, which received sign-off from the Zero Harm Council this year and will be implemented across the Group in 2014.

We also implemented a number of specific process safety initiatives during 2012/13. These include:

- Improving our Global Process Safety Management (PSM) metrics; and
- Completing compliance audits by an external audit consultancy of our OSHA covered US sites.

## Our Performance

### Personal Safety

Our safety performance is measured using a range of leading and lagging indicators, including Total Recordable Injury Frequency Rate (TRIFR), which is expressed as the number of recordable injuries per 200,000 hours worked.

The TRIFR measure is based on the US Department of Occupational Safety and Health Administration (OSHA) criteria for recordability. Our TRIFR for 2012/13 was 1.16.

Recordable incidents are those serious work-related injuries which result in a fatality, time away from work, restricted work duty and/or where medical treatment is required. During the period employee and contractor injuries included 36 Lost Work Cases, 22 Restricted Work Cases and 29 Medical Treatment Cases, bringing the financial year-to-date total recordable injuries to 87 (2011/12: 109).

While there has been a 20 percent decrease in the number of recordable injuries this year, the business tragically experienced two fatalities during the period. In order to achieve our goal of Zero Harm we recognise that we must continue to make positive and proactive HSE contributions in the 2013/14 period.

### Process Safety

We have dedicated process safety engineers at our major manufacturing sites, and the sites are also supported by global technology and asset integrity specialists.

This year, we modified the recording criteria for major process incidents to align with the tiered incident classification structure published

### Lead indicators adopted as a measure of safety performance this year were:

60 percent of all incidents reported to be near misses.



0 overdue high-priority corrective actions.



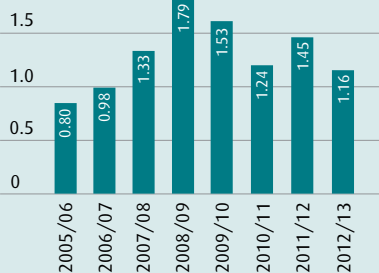
100 percent completion of Business Zero Harm Plans.





## Total Recordable Injury Frequency Rate over time (TRIFR)

2.0 TRIFR



(Note that the acquisition of Dyno Nobel was completed in 2008.)

by the American Institute of Chemical Engineers (AIChE) Centre for Chemical Process Safety (CCPS). The most serious incidents are classified as Tier 1 process safety incidents. Such incidents are those that result in an unplanned or uncontrolled release of any material or energy from a process that results in one or more of the following consequences:

- An employee or contractor lost time injury and/or fatality;
- A hospital admission and/or fatality of a third party;
- An officially declared community evacuation or community shelter in place;
- A fire or explosion resulting in more than \$25,000 (USD) of direct costs; or
- An acute release of flammable, combustible, or toxic chemicals greater in size than specified threshold quantities.

During 2012/13, we recorded a total of five Tier 1 process safety incidents. These incidents were all associated with loss of containment events of which two involved lost time injuries and one involved off-site community impact. For all incidents and

near misses reported in the 2012/13 financial year, the appropriate internal and external reporting and follow-up actions have been initiated.

Sites that had incidents this year are those which have been identified as having potential for process safety related issues. These include Major Hazard Facilities (or equivalent), or those handling materials with significant material hazards.

## Health and wellbeing programs

The IPL Zero Harm Council has responsibility for health and wellbeing across the Group and each business unit and site offers health and wellbeing programs appropriate for local needs and to suit local regulatory and cultural requirements.

### Examples of the types of programs available include:

All Australian and US employees have access to an Employee Assistance Program (EAP). In Australia, this program provides up to five confidential specialist counselling sessions each year, available 24 hours per day. It offers support for work and personal issues either face-to-face, over the telephone, in writing, via the internet or by video conferencing. The counselling can help with managing conflict, coping with change, stress, grief, career transitions, relationship issues, gambling, alcohol/substance abuse, parenting conflict, pain, trauma, anxiety, depression and many types of emotional difficulties.

This year as part of a BEx driven review of our health and wellbeing service offering, a working group has undertaken a review of the Australian and US programs and has developed a plan to provide a consistent EAP service across all of our sites. In keeping with the BEx maturity model, the extension of this program will take place in stages, with implementation due to get underway in 2014.

At various sites across the world, campaigns were conducted to address: nutrition awareness, manual handling, prevention and management of eye injuries, hearing conservation, fatigue management and body stretching and strengthening.

For example, employees at our Explosives initiating systems plant in Helidon, Queensland have developed a stretching and strengthening exercise program with the help of an Occupational Therapist, whereby employees 'down tools' every half an hour to undertake a range of stretches designed to prevent repetitive strain injuries (RSIs).

Since introducing the program, the soft tissue injuries the site was previously recording have been eliminated, with the site this year achieving the milestone of one year without a recordable injury across the site and two years without a soft tissue recordable injury.

Stress management information and/or training is instigated at a site level as needs are identified by the relevant site manager. This may take the form of site wide training, training for specific work groups, or referral for an individual needing assistance in this manner. First aid courses are open to employees to participate in across the Group and counselling or other support services are also available in response to specific events e.g. a natural disaster or site incident.

Some of our sites in Australia, such as Phosphate Hill, have access to a range of health and fitness support facilities and services such as a gymnasium, other sport and recreational facilities and lifestyle, nutrition, health and fitness professional support and advice. Many other sites offer a subsidy towards gym membership or other fitness programs. Across our US and Australian operations, annual occupational health assessments are also offered to employees.

### CASE STUDY

## Significant improvement in TRIFR across the Group



In our first year of implementing the Group HSE Strategy and related programs, IPL has significantly improved its Total Recordable Injury Frequency rate. The roll-out of BEx, increased training opportunities and the implementation of key programs such as Take5! and SAO across the Group have contributed significantly to this improvement in our safety performance. Key highlights include:

- In North America, a marked improvement was made to near miss reporting in SHAERS. 328 near-misses were reported in 2011/12 and 4,497 in 2012/13, representing 86 percent of all incidents reported.
- Our Explosives teams in Eastern Canada and the US Iron Range have significantly improved their TRIFR performance this year. Having previously recorded high incident rates, Eastern Canada reduced its

TRIFR by 44 percent year-on-year, and the Iron Range unit reduced its TRIFR by 58 percent.

- Our Explosives team in Eastern Australia, which has also been an area of focus, reduced its TRIFR by 79 percent, from 5.92 in 2011/12 to 1.27 in 2012/13.
- Our Indonesian operations reported zero recordable injuries over 12 months, resulting in a 2012/13 TRIFR of 0.00 and a marked improvement in their safety performance.
- Over 100,000 SAO and 177,000 Take5! exercises were completed within our Asia Pacific Explosives business this year
- Wolf Lake, Illinois, US, recorded one year Medical Treatment Injury free.
- Our fertiliser manufacturing plant in Pinkenba, Queensland, Australia sustained a TRIFR of 0.00 throughout 2012/13.
- Our Initiating systems assembly plant in Helidon, Queensland, Australia achieved and sustained a TRIFR of 0.00 also.
- Our Fertiliser site in Gibson Island, Queensland, Australia reduced its TRIFR to 0.40 in 2012/13, down from historic highs of approximately 2.00.
- Our global manufacturing operations sustained a low severity rate for the second year in a row, achieving a rate of 0.25 in 2012/13 and 0.21 in 2011/12.



# Community

*Care for the Community and our Environment*

Employees from our office in Salt Lake City, Utah volunteering for the Utah Food Bank.

## Overview

*We understand that long term and meaningful relationships with our communities are fundamental to maintaining our social licence to operate and believe we have a responsibility to make a positive social and economic contribution.*

*As an international industrial chemicals company with operations in many countries, we take a grass-roots approach to community engagement. Community investment and engagement decisions are made locally, where community needs are best understood, and are guided by a Group-wide governance framework.*

## 2013 highlights

- We implemented our Community Investment Framework across the Group, ensuring alignment of our community investments to targeted investment principles and achieving a 45 percent increase in community contributions
- We undertook two community investment programs, resulting in significant community engagement opportunities
- We engaged in constructive dialogue with the communities neighbouring our major development projects in Australia and the US

## Key challenges and opportunities

Our key community challenges and opportunities include:

- Ensuring alignment of our community activities to our Principles for Giving across our global operations
- Maintaining our social licence to operate with the inherent risks associated with chemical manufacture, storage and transport
- Standardising and formalising our approach to community engagement
- Building our reputation as an employer of choice in the community

## Strategic priorities

We will continue to improve our approach to community engagement, including:

- Continuing to develop a Group-wide approach to community relations and embedding principles of community engagement at business unit and site level
- Understanding and working to address the impacts we have on our communities
- Embedding the principles of our Community Investment Framework within the ongoing operations of our businesses and functions



Employees from our Explosives site in Carthage, Missouri taking part in the annual Maple Leaf Parade.



## Our approach

We are committed to building long term and meaningful relationships with the communities in which we operate in accordance with our Value of "Care for the Community & our Environment". We actively engage with community members and representatives of national and international charities, regulators, Governments and grass-roots community organisations including resident groups, councils, farmers, sporting clubs and environmental groups.

We aim to have a positive impact by working closely with community representatives, providing local employment and selecting local suppliers wherever possible. We empower our people to engage with their local communities and seek to mitigate negative impacts and create positive perceptions and outcomes for our business.

Our Sustainable Communities Policy (available at [www.incitecpivot.com.au](http://www.incitecpivot.com.au)) defines our approach to community relations, including commitments to:

- Listen to and work with the community;
- Strive to be a valued corporate citizen; and
- 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 community engagement programs rests with local management at each of our sites, as our site managers best understand their needs and concerns.

Local priorities are informed by our Community HSEC Standard, which sets our minimum requirements for engagement.

Governance of our community investment programs is overseen by the Executive Team.



Paul Brasher, Chairman of the IPL Board (right) with Bobby Jindal, Governor of Louisiana, at the Louisiana Plant Groundbreaking ceremony



Doug Chandler (left), Plant Manager at our explosives site in Cheyenne, Wyoming, US presents a Community Fund donation to the Laramie County Fire District.

## Community consultation on major development projects

Appropriately, we undertake community consultation activity in support of all major development projects. These construction projects are typically multi-million dollar developments, taking place over months and years. The local community, understandably, has questions and concerns about how such developments may impact them. We utilise internal expertise and, when required, employ stakeholder and community engagement specialists to support our project teams and local people to ensure timely communications throughout a project's life cycle.

### Projects undertaken this year include:

#### Louisiana Project, US

Based on the results of the US\$30 million feasibility study undertaken in 2012, we have begun construction of an 800,000 tonne, world-scale ammonia plant in Waggaman, Louisiana, US. Being constructed on a brownfield site, located on the Cornerstone Chemicals complex, the plant is being built using KBR Purifier TM Ammonia Process plant technology, which has been rated as the most reliable in the world.

Throughout each stage of the project, stakeholder and community engagement activities have been undertaken to ensure community questions and concerns are appropriately addressed.

During the reporting period, our project team met twice with the Cornerstone Community Advisory Panel overseeing the project. The advisory panel showed strong support for the project and its go ahead.

As a sign of goodwill and our intention to be an ongoing and valuable member of the local community, IPL contributed US\$25,000 to the Jefferson County Parish Christmas Tree Marsh Restoration Project after signing on to the project. Since 1991, over 750,000 Christmas trees have been used to rebuild the wetlands, a project the local community has thrown its ongoing support behind.

#### Port Hedland Project, Australia

Our Explosives emulsion plant at Port Hedland, the main port within the Pilbara region of Western Australia, began production this year. The new plant has a capacity of 100,000 tonnes per year and supplements product delivery from Kalgoorlie, Western Australia, shortening the supply chain for our customers and reducing exposure to extreme weather events.

Now in operation, site management is working closely with the community to identify opportunities for indigenous employment and engagement. For more information, see page 41 within the People section of this report.

Our Explosives business also donated all furniture from the contractor housing used throughout the duration of the plant build to the Wangka Maya Pilbara Aboriginal Language Centre in South Hedland, Western Australia earlier this year.

## COMMUNITY

### Ongoing community engagement at site level

Many of our operational sites have community engagement programs in place to facilitate two-way communication between the site and the local community.

#### Examples include:

- Our fertiliser manufacturing site in Portland, Victoria, Australia, which conducts three community meetings a year. Advertised through the local media, Portland residents, local journalists and council representatives attend. During the meetings site representatives present data about the site, such as the results of ongoing environmental monitoring and safety information. Community leaders are provided with the telephone numbers of key site employees and are able to notify them of issues when they arise.
- Our Explosives site located in Cheyenne Wyoming, US, which produces ammonium nitrate solution, prill, ammonia, UAN (a liquid fertiliser made with urea and ammonium nitrate) and urea, has a long history of supporting the local community. This year employees at our Cheyenne site have focused on helping the underprivileged,



Employees from our explosives site in Cheyenne, Wyoming, US volunteer at the Friday Food Bag Foundation

running community safety events and responding to local emergencies. In one community project, Cheyenne volunteers helped the Friday Food Bag Foundation, which relocated its operations and needed help setting up shop. They used their skills to build shelving and arranged the shop so it was user-friendly. In a similar spirit of service, Cheyenne volunteers started a food drive at the plant to provide 25 local families in need with Thanksgiving dinner packages.

- Our fertiliser distribution site in Townsville, Queensland, Australia, opened its doors to the local community this year as part of the Townsville Port open day.

About 400 people came through the facility on the day and heard about IPF's commitment to safety, people and products, and its contribution to the community and agriculture.

- Our fertiliser distribution site in Port Adelaide, South Australia has recently formed a Bulk Handling Committee, comprising representatives from each of the fertiliser businesses located at the Port. The purpose of the committee is to ensure the effective management of the potential community issues associated with fertiliser storage and transport, such as fertiliser tracking.



St Helens employee, Rob Opperman, far left, shows St Helens High School students our St Helens operation.

Employees at our Explosives manufacturing plant in St Helens, Oregon, discovered a stockpile of surplus laboratory equipment, including glassware, thermometers and hydrometers during a BEx clean up exercise this year. Recognising the ability to assist the next generation of potential plant operators and engineers, the site donated the equipment to the St Helens High School Advanced Placement Chemistry class. The St Helens High School students were also given the opportunity to visit the site to learn about its operations and role in the local community. Employees spoke to the students about various chemical processes, DNNA's environmental stewardship and its Zero Harm commitment to community safety, before taking the class for a tour of the site.

As one of the larger industrial businesses operating in St Helens, leaders at the site understand the need to be heavily involved in the local community and participate in key industry and community groups, such as the Columbia City Hazard Mitigation Planning Group; the Columbia County Economic Team; the Columbia County Traffic Safety Commission; the Columbia County Homeland Security Emergency Management Commission and the Columbia Emergency Planning Association, as well as local boy scout troops, little league teams and food banks. Participation in key community activities has enabled the team at St Helens to better understand the needs of their community and act accordingly.

Based on their understanding of the key risks associated with a potential incident on our site, this year the team at St Helens established a County Community Emergency Response Team. The purpose of the team is to educate the community on how to respond to a potential incident at our plant. Local Emergency Services provides a reverse 911 service, whereby community members are contacted if there's an incident within their county.

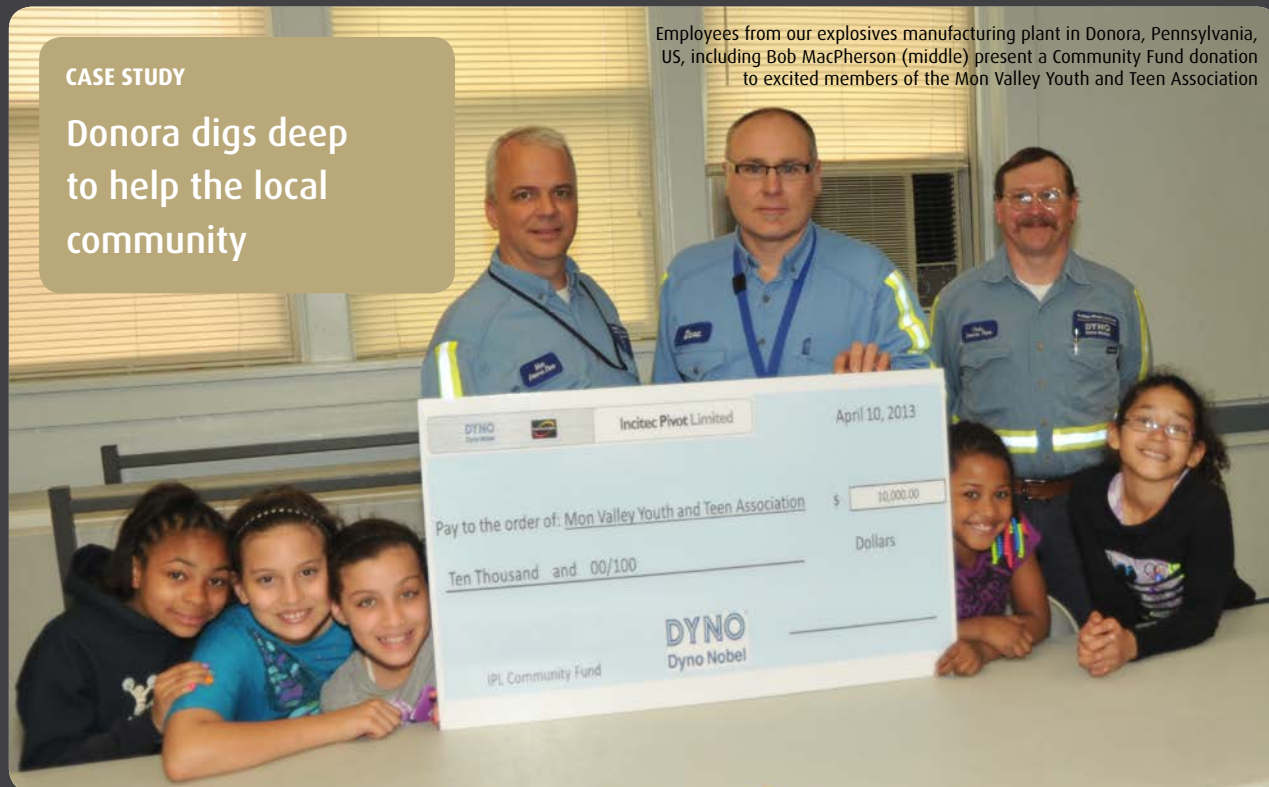
In the coming months the team will participate in an emergency preparedness fair that has been organised to help to educate the community on the 911 service, as well as the many other services available to it.



## CASE STUDY

### Donora digs deep to help the local community

Employees from our explosives manufacturing plant in Donora, Pennsylvania, US, including Bob MacPherson (middle) present a Community Fund donation to excited members of the Mon Valley Youth and Teen Association



Our Donora manufacturing plant, in Pennsylvania, US, has established a strong relationship with the local Mon Valley Youth and Teen Association, which began with the site's decision to volunteer time to hold a regular food drive for the organisation.

"Our efforts have helped to keep the shelves from going bare during some of the more difficult times," said Bob MacPherson, the site's BEx Facilitator.

"The drives are going to be an ongoing effort from the plant. A lot of people in the community are hurting and it's another way to help out. We are learning more about how to do food drives each time and trying to educate our people about their role."

Having built a relationship with the organisation and its Executive Director, Mary Anne Bandalo through the food drives, the team at Donora came to understand that the Mon Valley Youth and Teen Program had further needs that they could also help to meet.

"Their greatest need was computers," said Bob. "In the after-school program, Mary Anne tries to expose the kids to computers and a good, healthy atmosphere. But the computers were very old and she was spending half the time rebooting the computers when the kids came into the centre."

The Donora plant successfully applied for a grant through IPL's Community Fund and US\$10,000 was provided to purchase 15 new computers, software, several projectors, a big screen TV and a new printer.

The team was able to leverage its procurement capabilities and Dyno Nobel's purchasing power to buy more equipment than expected with the grant money. Volunteers from the Donora plant then worked with kids from the program to get the newly purchased equipment up and running.

"Many people at Donora do so much more than just making good reliable products," Bob said. "They show their care for the community and the environment every day. I am really proud to be a very small part of that effort".

Incitec Pivot Port Adelaide employs a number of processes to address issues associated with fertiliser transport. These include using street sweepers on both the road between the port and the site and within the site itself, a blow down process on trucks when product is being discharged from a vessel into Incitec Pivot's facility and rattle grids at the exit points of the storage shed on site. Site employees have also attended mandatory training in relation to environmental issues including transfer of fertiliser.

In relation to community concerns regarding the placement of our fertiliser distribution centre at the Port, the South Australian State Government will purchase this site in early 2014. Our fertiliser distribution centre will continue to operate at this site under a lease agreement until a suitable location is identified and developed that will suit all parties, including our extensive agricultural base.

As outlined on page 21 within the Environmental section of this report and page 32 of the Products and Services section, we have processes and procedures in place to mitigate the risk of an environmental incident at our sites and when transporting and storing our products. Should an incident occur, however, we understand that communicating with neighbours and the local community is an important element in managing the response to any crisis at our sites.

Sites regularly participate in community forums, working with local representatives to ensure appropriate plans are in place to mitigate the impact of a crisis situation.

One example of this is our Big N Fertiliser Depot in Moree, Queensland, Australia, which participated in an incident planning day with the Moree Shire Plains Council this year, where they helped to establish an emergency action plan for the Moree community and surrounding area.

Our Reputation and Crisis Management manual, including tools and templates, complements sites' emergency response and business continuity plans. The manual assists crisis management teams to effectively manage communication and engagement during an incident.

## Community Investment across our Operations

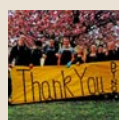
US\$10,000 from the IPL Community Fund went towards rescue equipment for the Laramie County Fire District (LCFD) #1, supported by our explosives plant in Cheyenne, Wyoming, US. Not only does this donation enable safe and timely emergency responses, the partnership will also enable the Cheyenne team to undertake industrial fire training.



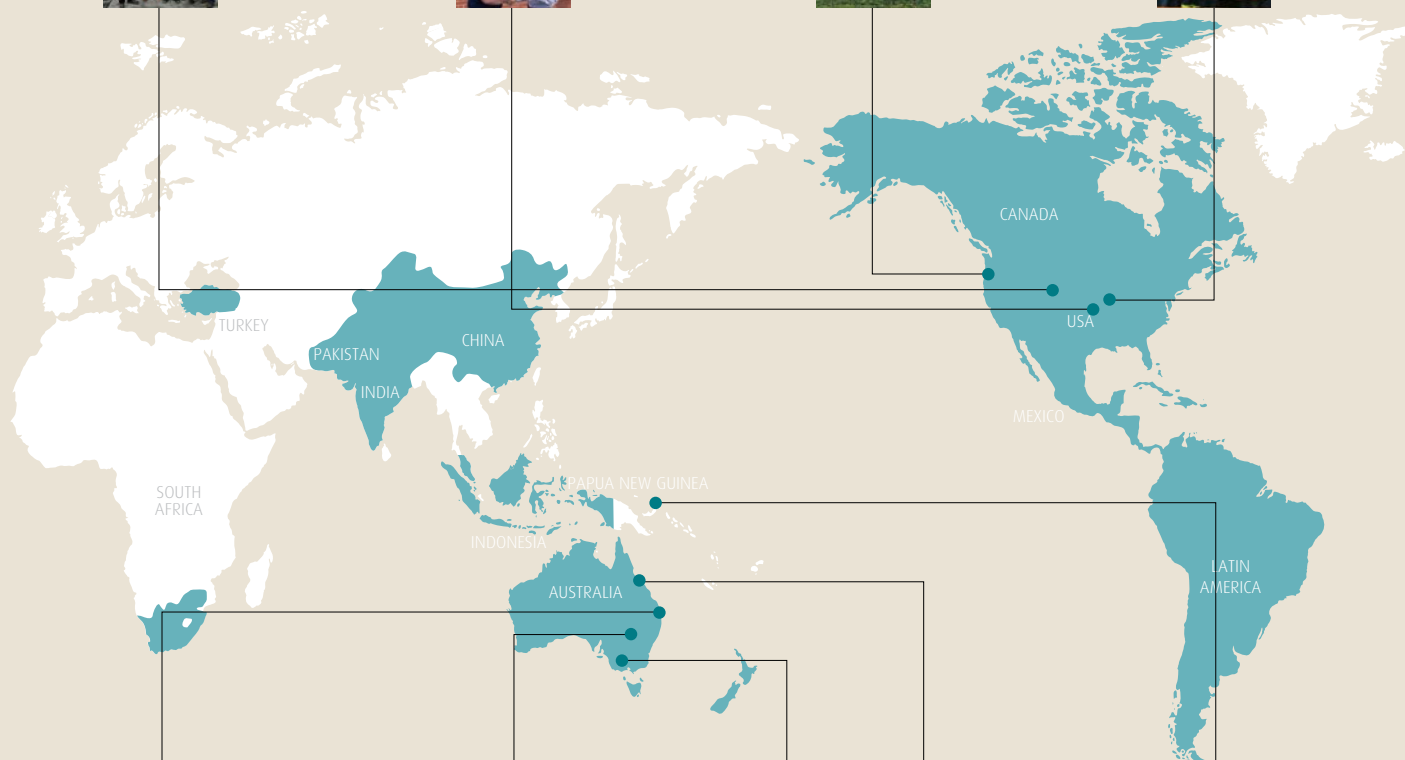
Our explosives manufacturing plant in Carthage, Missouri supported the local Carthage Fire Department and YMCA, donating US\$5000 to each through the IPL Community Fund.



Our explosives manufacturing plant at St Helens, near Portland in Oregon, US, has partnered with local emergency services by arranging funding for new respirator testing equipment. The support was provided through IPL's Community Fund, which provided US\$10,000 for Columbia River Fire & Rescue to purchase equipment for testing how well respirators fit emergency crews.

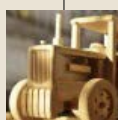


Our explosives manufacturing plant at Louisiana, Missouri, US (LOMO), supported its local Twin Pike Family YMCA with US\$10,000 from the Community Fund, which was donated on top of a fundraised amount of US\$1000 which was in turn matched by IPL's Dollar for Dollar program. The total of US\$12,000 will help with the expansion of the YMCA's facilities to include an indoor aquatics centre and walking track.



Our Asia Pacific explosives business has partnered with the Brisbane Youth Service to create opportunities for homeless and disadvantaged youth to enable them to have more stable lives while developing personally and professionally through a number of housing, educational and training programs. Steve Dawson, President, Dyno Nobel Asia Pacific, recently presented BYS with a cheque for A\$10,000 from the IPL Community Fund program.

IPL's Club Red team in Australia has saved a total of 156 lives by making 52 donations to the Red Cross Blood Drive. Employees in IPL's offices participate in this program.



This year, with help from the Community Fund, our fertiliser business donated A\$20,000 to support 10 local Men's Sheds across regional Australia. The funds were used to purchase much needed safety equipment for each site, and mark the beginning of a partnership between the organisations. Men's Sheds promote good health by giving men a place to go, to be productive and valuable to their community, connect with friends and maintain an active body and mind.



Tyrell College in Sea Lake, Victoria, Australia, received A\$2000 for new laptops.

The Yungaburra Business Association in Cairns, Queensland, Australia received A\$9000 towards its Avenue of Honour.

Our fertilisers business in Tasmania, Australia was quick to jump to the aid of local farmers following the devastating bushfires that hit the state in January. Seeing the need to help out, IPF's Tasmanian Sales and Agronomy team raffled 39 tonnes of SuPerfect fertiliser to raise much-needed recovery funds and IPL's Tasmanian employees volunteered to assist with relief efforts.



Employees from our explosives site in Warkworth, New South Wales, Australia sent books to students at Lihir Primary School in Papua New Guinea, close to our Lihir mine site.

Congupna Primary School in Shepparton, Victoria, Australia received A\$2000 for a community fun run which was held in March 2013. Students from the school were delighted to visit the IPF distribution site to present Jeff Cameron, Operations Manager, with cards they'd made to show their thanks. The Congupna Primary School is a neighbour to our fertiliser primary distribution centre in Shepparton and site management have a strong ongoing relationship with the school.



## Community Investment

Through our Community Investment Framework we are able to deliver long-term sustainable growth for our businesses and ensure the long-term health and vitality of our local communities.

Our approach to community investment continued to progress this year, with the implementation of our Community Investment Framework across the Group. The Framework, implemented this year, has been one of the key outcomes of our 2010-13 Sustainability Strategy. It has been established to help us to build meaningful community relationships and has enabled us to further support our people in their endeavours to make a difference within their local communities. The framework also sets minimum standards all businesses and sites within the Group are required to uphold when administering community programs and spend, ensuring funds are issued consistently and fairly across our operations. Importantly, the Framework preferences local approaches, enabling each IPL business and site to respond to the distinct needs of their communities.

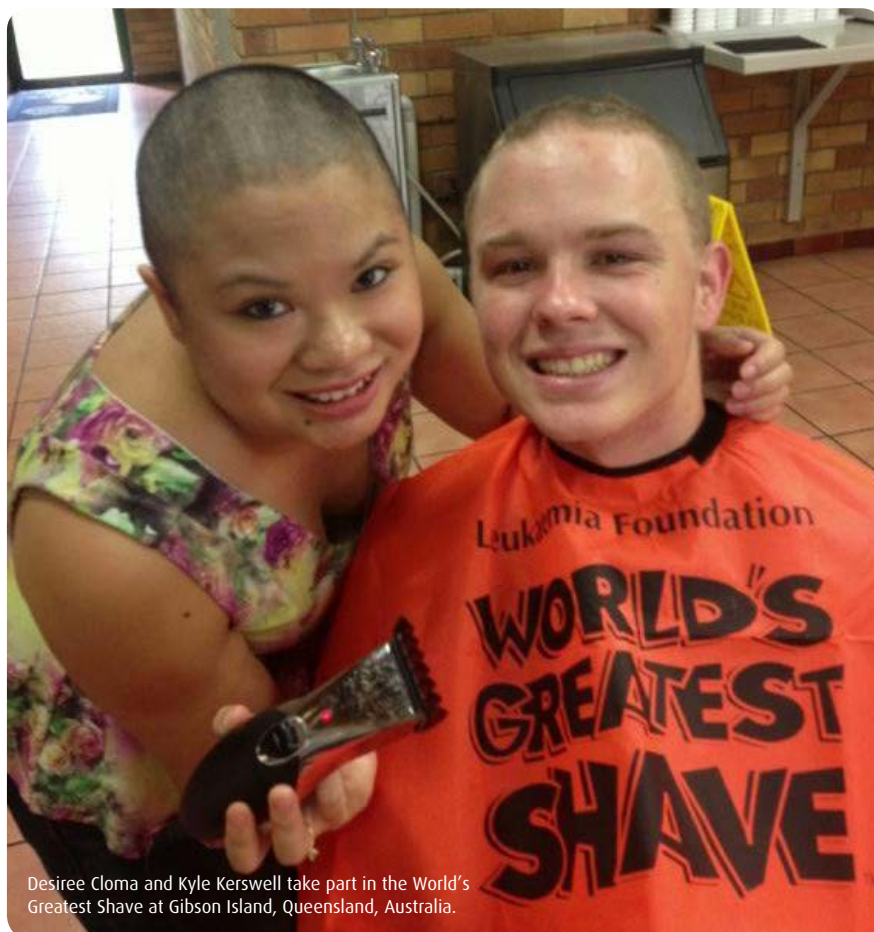
IPL's Community Investment Framework outlines that all community investments must be issued in accordance with our 'Principles for Giving'. Our Principles for Giving have been endorsed by the Executive Team and ensure we have a strategic and consistent approach to community giving across the Group.

IPL's Principles for Giving ensure that we:

- Support activities that provide solutions to local challenges and opportunities in the communities around our operations and where our employees live.
- Place a strong emphasis on supporting initiatives that help local organisations develop the skills and resources to bring positive and lasting benefits to the community.
- Provide funding to initiatives that are aligned to IPL's Values and business strategy, and are integral to the long-term sustainability of the communities where we operate. Our areas of focus are:
  - Education – providing support for childhood, adult and indigenous specific education activities;
  - Health – providing support for activities working towards better physical and mental health;
  - Community Development – providing support for activities that enrich community life and enhance the social, environmental and economic sustainability of local communities.

### IPL Community Fund

In 2012/13, the IPL Community Fund provided IPL's operations worldwide with a formal avenue through which to apply for grants of up to A\$10,000 (or local equivalent) in support of local community initiatives.



Applicants were asked to demonstrate the value of their initiative to the community as well as the link between the initiative they're hoping to support and their site's broader community engagement efforts. Applications that provided evidence of how each contribution will assist IPL in securing its social licence to operate were also given preference. The fund is allocated on an annual basis by a committee of business leaders, who considered both the individual merits of each application, as well as its alignment to our Principles for Giving.

The 2012/13 Community Fund made a large impact in our local communities. In February, a committee of business leaders awarded 20 grants to the sites from across the Group that best demonstrated the community and business benefits of the initiatives they were applying to support.

### Dollar for Dollar Program

Our Dollar for Dollar program, a key component of our Community Investment Framework, matched employee donations and fundraising efforts that were aligned to our Principles for Giving to a total of A\$2000 per initiative in 2012/13. Applications were made for initiatives ranging from employees at our site in Phosphate Hill, Queensland, Australia holding a weekly trivia night in support of the Royal Flying Doctor's Service to employees in Gibson Island, Queensland, Australia shaving their head to raise money for the Leukaemia Foundation.

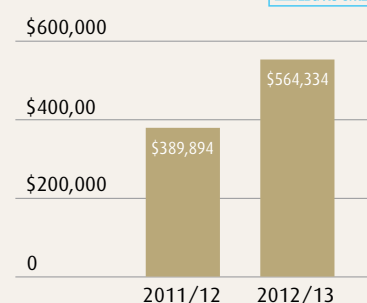
### Measuring community investment

We measure our community investment using the London Benchmarking Group (LBG) methodology – a global standard for reporting community investment. In 2012/13, our total community investment was A\$564,334 including cash, time, in-kind support and management costs.

Many donations were made locally, either through the donation of products and services, volunteering, local sponsorships or fundraising efforts.

100 percent of both local and Group donations were made in line with our Principles for Giving, with 40 percent going to health initiatives, 20 percent going to education and 40 percent to local community development.

### Total community investment



# Environment

*Minimise environmental impacts and leave no legacies*

## Overview

*We are committed to continuously improving the management processes and systems we have in place to make our operations and products more sustainable, and to ensuring we keep our stakeholders informed in regard to our environmental impacts and dependencies.*

## 2013 highlights

- We established Zero Harm Councils within each of our business units, which report to the Zero Harm Council of the Executive Team
- We conducted environmental awareness and specialist training for site managers to embed good environmental practices across our business
- Our Global Environmental Standards were reviewed and simplified as part of a review of all HSEC Standards
- Our Gibson Island site reduced its energy use by 4 percent per tonne of ammonia during 2012/13 which is an achievement that exceeded the target of 3.5 percent by 2015
- Training in resource efficiency target setting was completed across many of our major manufacturing sites in North America
- We completed two carbon life cycle assessments. One determined the energy and carbon intensity levels of the stages in our major manufacturing processes and the other examined the life cycle of our bulk fertiliser packaging

## Key challenges and opportunities

Our key environmental challenges and opportunities include:

- Consolidating global resource efficiency targets and implementing a streamlined monthly global reporting process
- Continuing to identify and prioritise resource inefficiencies to work towards our reduction targets
- Securing capital to drive resource efficiencies in difficult market conditions
- Responding to changing carbon regulatory conditions globally, particularly in Australia.
- Continuing to improve our environmental compliance and management systems, and performance
- Responding to climate change risks and opportunities
- Strengthening our relationships with the community and other stakeholders to build our reputation and licence to operate (discussed further in the Community section of this Report)

## Strategic priorities

We will continue to improve our environmental performance, with an immediate focus on:

- Working with the Australian Federal Government on energy and carbon policy to ensure favourable outcomes for both business and the environment
- The continued roll out of Business Excellence (BEx) across areas of our business that impact on the environment and resource efficiencies
- Continuing our focus on education and training
- Continuing to improve environmental governance, aiming for integrated and multidisciplinary ownership of environmental issues and legacies



## Our approach

In line with our Value of “Care for the Community & our Environment”, we apply a continuous improvement approach to management of environmental matters, focusing on the efficient use of non-renewable resources, environmental management at our sites and the rehabilitation and remediation of contaminated sites.

Our Health, Safety, Environment and Community Policy states that we will:

- Conduct our operations in compliance with all relevant environmental licences and regulations;
- Promote the efficient use of resources and energy; and
- Strive to minimise our impact on the environment.

Our sustainability agenda includes a strong focus on progressively increasing resource efficiency. Targets for GHG emissions, natural gas use, water use and waste to landfill have been established for our Australian manufacturing operations. Read more about progress against these targets in the case study on page 25. We are working towards establishing targets for all other operations.

The risks and opportunities associated with climate change have been assessed. These are described in our annual Carbon Disclosure Project submission, a copy of which is available at [www.incitecpivot.com.au](http://www.incitecpivot.com.au)

We have a governance structure in place that oversees the management of our environmental impacts:

- The Board’s Health, Safety, Environment and Community (HSEC) Committee assists the Board in its oversight of health, safety, environment and community matters arising from our activities as they may affect employees, contractors, and the local communities in which we operate.
- The Zero Harm Council, chaired by our Managing Director & CEO and consisting of members of the Executive Team is accountable for reviewing health, safety and environmental performance.

This year, an Environment Zero Harm sub-committee was also established and charged with identifying environmental issues, risks and opportunities and developing associated action plans.

- The Zero Harm Council is supported by Zero Harm Councils within each business unit, down to site level. These Councils are chaired by the business unit head to provide leadership on health, safety and environment. Business Unit Councils meet monthly and report to the Executive Team. Within each of our business units, operations staff and project teams are responsible for preparing and executing plans to support environmental targets and strategies.
- Site managers are responsible for the operation of their site, including their environmental performance. Environmental managers within the business provide site managers with expertise to support the day-to-day environmental management of sites.
- Four working groups within our Australian manufacturing operations regularly met during 2012/13 to report progress against resource efficiency targets, share knowledge and identify hurdles. These working groups consisted of the site personnel with direct responsibilities for resource reductions. The four working groups were:
  - Major Energy – this group concentrated on reducing energy use at our large, energy intensive manufacturing sites.
  - Minor Energy – this group aimed to achieve energy use reductions at our smaller manufacturing sites.
  - Water – this group worked to reduce water use and manage storm water and discharge.
  - Waste – this group worked to reduce the impacts and costs associated with all types of waste.

In addition, our induction process includes discussion and sign off on our Health, Safety, Environment and Community Charter for all new employees.

In Australia a central reporting system collects energy use, water use and waste data from all manned sites. The data is obtained from utility bills, except where electricity is generated on site. Electricity generated from natural gas at remote sites is metered on site and this is also entered into the database. Municipal water use is obtained from water bills, whereas volumes for storm water, river water, recycled process water or ground water are typically metered on site. The data is then consolidated and verified for reporting purposes. Progress has been made toward extending this data collection system to North American sites in 2013/14 however implementing a best-practice long-term data collection system has taken longer than anticipated. Energy use, water use and waste data for our sites in North America and Europe were supplied separately this year.

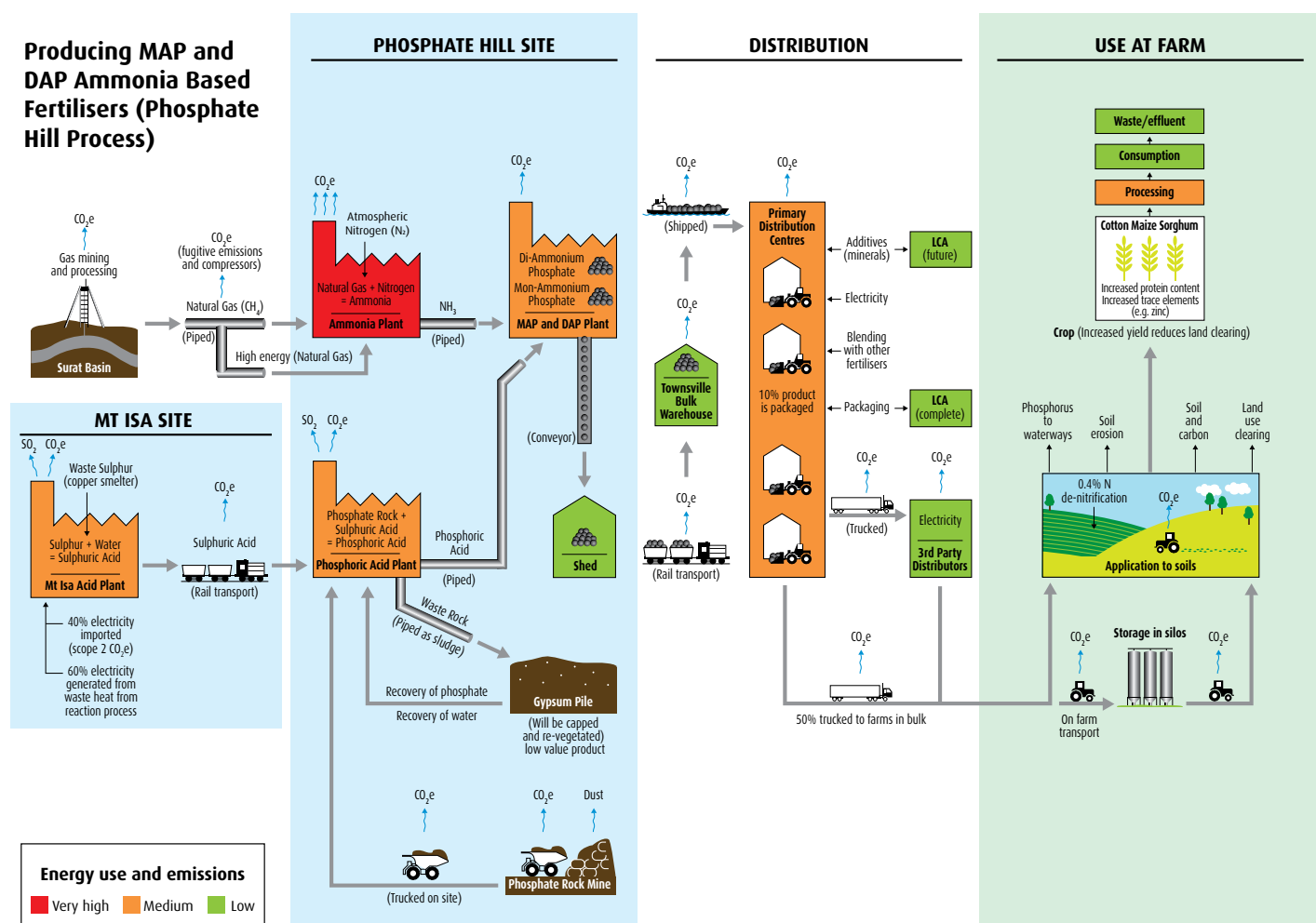
Our sites are also driving environmental improvements using BEx continuous improvement processes. Examples of BEx initiatives undertaken this year to improve environmental practices include:

- The addition of environmental metrics on BEx visual management boards, which are reviewed at site daily management meetings.
- The provision of environmental training across our Initiating Systems and Ammonium Nitrate Manufacturing divisions in the US, focussing on environmental requirements and compliance; stormwater and universal waste management; protecting endangered species; spill prevention and response procedures; and environmental release reporting.
- Environmental team members undertaking ‘GEMBA’ walks at our US explosives manufacturing sites, working with employees to recognise and address potential environmental hazards in their work areas.
- Environmental goals associated with progressing along the BEx maturity scale being incorporated in to the short term incentive plans of our US manufacturing environmental team members.
- Addressing loss and waste. Read more about BEx at our Wolf Lake, Illinois site on page 27.



Ammonium Nitrate manufacturing site at Moranbah, Queensland, Australia.

## Producing MAP and DAP Ammonia Based Fertilisers (Phosphate Hill Process)



## Resource efficiency

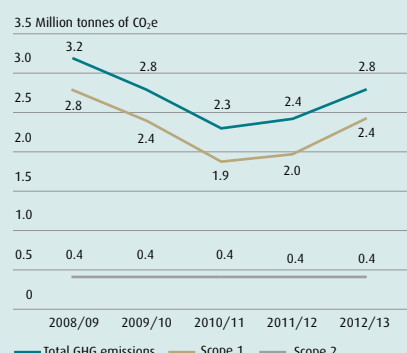
Our consumption of resources, such as fossil fuels (mostly natural gas), electricity and water and the amount of GHG emissions we produce is representative of the scale and capacity of our manufacturing plants, in particular the energy-intensive manufacture of ammonia-derived products, including urea, ammonium sulphate, ammonium phosphate and ammonium nitrate for the fertiliser and explosives markets. All of these products require natural gas as both an energy source and a raw material for production, with carbon dioxide being liberated during the process. Carbon dioxide is also liberated during the acidulation of phosphate rock in the manufacture of phosphate fertilisers.

Each chemical manufacturing process takes place in a different plant within a site. Some sites support multiple plants, for example our site at Phosphate Hill, Queensland, Australia has separate plants which process phosphate rock, produce ammonia, make phosphoric acid, and produce granulated fertiliser (both di-ammonium phosphate (DAP) and mono-ammonium phosphate (MAP)). Sulphuric acid, a further input to the processes at the Phosphate Hill site, is produced at our Mt Isa plant and transported to Phosphate Hill via purpose built rail. The intensity of energy use and carbon emissions associated with each of these processes is shown in diagrammatic form above.

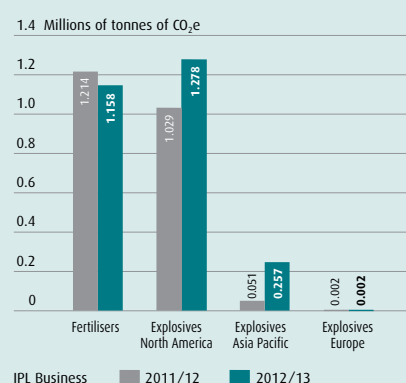
We report on GHG data and energy use, as well as water and waste data for our major global operations in order to measure our progress as we continue to improve efficiencies.

This year data was again reported from all Australian sites and our manufacturing sites in North America and Europe. This represents the majority of our GHG emissions, natural gas and water use and waste. Sites in Asia and Chile, and non-manufacturing sites in North America are not considered material in terms of resource efficiency. We also have supply operations on mining sites that are not included in the consolidated numbers, as energy, water and waste are typically accounted for by the mine owner (our customer) for those operations.

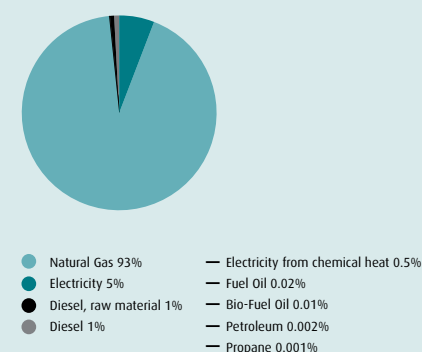
Greenhouse gas emissions over the last 5 years



GHG emissions (Scope 1 and 2) by each business<sup>1</sup>



Energy sources for the year 2012/13



1. The GHG emissions associated with our Explosives business in the Asia Pacific will increase as the new Moranbah site reaches full production.



## Greenhouse gas emissions

We are a “large emitter” of GHG, as defined by the Australian National Greenhouse and Energy Reporting System (NGERS). During 2012/13 our recorded (Scope 1 [direct] and 2 [indirect]) absolute GHG emissions were 2.8 million tonnes of carbon dioxide equivalent (CO<sub>2</sub>e). This is an increase of 14 percent from last year, which is mostly due to the ammonium nitrate solution, emulsion, prill, nitric acid and ammonia plants at our new facility in Moranbah, Queensland, Australia ramping up production during 2013.

The total figure comprises 2.4 million tonnes of Scope 1 [direct] emissions and 0.4 million tonnes of Scope 2 [indirect] emissions.

## Energy

During 2012/13, our operations consumed 42,796,114 GJ of energy, of which 2,042,326 GJ was purchased electricity. Approximately 80 percent of the electricity purchased was generated from non-renewable sources. Approximately 20 percent of the purchased electricity (indirect energy) was generated from renewable resources, mostly hydroelectric.

Data was reported from all Australian sites and our manufacturing sites in North America and Europe. Natural gas and diesel amounts used as raw materials and on-sold in our explosives products have been included in our energy use figure.

Approximately 1 percent of our direct energy is from CO<sub>2</sub>e-free sources, which includes bio-fuel oil and electricity that is generated from the heat emitted by the exothermic chemical reaction used to manufacture sulphuric acid.

Natural gas is a key raw material for our production processes and is unable to be substituted. We have discussed the issues associated with natural gas supply in Australia in the Products & Services section of this Report.

During 2012/13 we conducted a high level Life Cycle Assessment of the energy and carbon emissions associated with one ammonia based fertiliser manufacturing site and one ammonium nitrate manufacturing site, each of which is representative of the scope and activity of our manufacturing operations across the Group. The life cycle of the fertiliser manufacturing site is represented in the diagram on page 22. All other diagrams can be found at [www.incitecpivot.com.au](http://www.incitecpivot.com.au)

## Other significant air emissions

Nitrous oxide (N<sub>2</sub>O) is a GHG that is emitted during the production of nitric acid, which is then used to make ammonium nitrate. Our emissions of N<sub>2</sub>O are included in our GHG emissions figures, in units of CO<sub>2</sub>e.

Nitrogen oxides (NO<sub>2</sub> and NO, referred to collectively as NO<sub>x</sub>) are released when fuels are burned at high temperatures, such as in combustion engines and boilers.

Sulphur oxides (SO, SO<sub>2</sub>, SO<sub>3</sub>, referred to collectively as SO<sub>x</sub>) are emitted when fossil fuels are combusted and in the making of sulphuric acid.

Although NO<sub>x</sub> and SO<sub>x</sub> are not greenhouse gases, they are emissions that have other environmental impacts, such as air pollution. We have restated our 2011 calendar year NO<sub>x</sub> from 1,172 to 2,724 tonnes due to increased rigour in our data collection processes. During the 2012 calendar year, our operations emitted 2,781 tonnes of NO<sub>x</sub>. This is an increase of 2 percent from the previous year, mainly due to our new plants at Moranbah, Queensland, Australia. Our operations emitted 12,162 tonnes of SO<sub>x</sub> during the 2012 calendar year, which is a reduction of 37 percent from the previous year. This reduction is mostly attributable to greater SO<sub>x</sub> controls at our sulphuric acid plant in Mount Isa, Queensland, Australia.

The use of our explosive products can also generate NO<sub>x</sub> emissions that can have an impact on ambient air quality and our initiatives to reduce NO<sub>x</sub> emissions are discussed in the Products and Services section of this Report.

Our products are used in other industries to reduce air pollution. For example, the use of urea in selective catalytic reduction in the diesel engines of trucks and large utilities, such as power generators, reduces the outputs of nitrogen oxides which react with sunlight to cause smog. The aqueous urea vaporizes and decomposes to form ammonia and carbon dioxide. Within the SCR catalyst, the NO<sub>x</sub> are catalytically reduced by the ammonia into water vapour and nitrogen, converting more than 90% of the nitrogen oxides in exhaust gases and thereby reducing smog over our cities.

## Initiatives to reduce emissions

During 2012/13 we continued to work towards our three year reduction targets for energy use and GHG emissions which were set by our Australian manufacturing operations in 2011/12. This is part of our long term global focus on running energy efficient plants. The targets were determined using a ‘bottom-up’ approach, with each major Australian manufacturing site calculating reductions achievable in the three year time frame towards 2014/15. These reductions were then consolidated to determine Australia-wide reduction targets. For these targets, we adopted a production-based intensity indicator, as approximately 95% of our energy use and GHG emissions relate directly to our manufacturing production.

All of the nitric acid plants we currently operate have NO<sub>x</sub> abatement technology in place except for our Louisiana, Missouri, US plant. Investigations into appropriate abatement technology for the Louisiana plant have been completed and we expect that abatement will be installed in 2016. The particular technology in place at our other nitric acid plants also abates nitrous oxide to significantly reduce GHG emissions. Our explosives manufacturing site in Moranbah, Queensland, Australia,

has abatement specific to N<sub>2</sub>O (GHG) on its nitric acid plant.

Each site determines the best way to achieve energy and emissions reductions locally, with many now undertaking energy audits to identify possible ways to reduce energy consumption.

Examples of the energy and emissions reduction activities undertaken throughout the reporting period include:

- Our ammonia plant at Gibson Island, Queensland, Australia met the four percent energy reduction target set under Keystone Project One. Energy use has been reduced by 4,584,024 GJ and emissions reduced by 159,257 tCO<sub>2</sub>e against 2010 baselines. This equates to a reduction of 1.9 GJ and 97kg CO<sub>2</sub>e per tonne.
- Our explosives and fertiliser manufacturing site in St Helens, Oregon, US replaced catalyst baskets in the Synthesis Loop with axial-radial flow baskets. During 2012/13, this resulted in a saving of 23,000 MWh of energy, 9,629 tonnes of CO<sub>2</sub>e emissions and US\$72,000 in energy costs, exceeding the estimated 9.1 percent energy savings. The site also reduced their gas consumption by developing a process to control their 150 pound steam system and installed energy efficient lighting.
- Our explosives manufacturing plant in Donora, Pennsylvania, US reduced NO<sub>x</sub> emissions using an experimental technique on plant start-ups. Emissions were reduced by 136 tonnes, which is a 60 percent reduction from 2012/13 figures. Along with our plant in Cheyenne, Wyoming, US, Donora also developed a process for establishing PA steam condensate control.
- Our explosives manufacturing site in Cheyenne, Wyoming also re-established a waste heat boiler on their Cooper Compressor.
- Several energy saving initiatives were implemented at our Simsbury detonator manufacturing plant in Connecticut, US. Electricity consumption was reduced by implementing a new 24/7 schedule, new 50 h.p. VFD air compressor and resetting air conditioning points. The site converted its HMX processing building from fuel oil to natural gas, which also resulted in the removal of an underground storage tank, eliminating a potential environmental liability. Lastly, a centralized closed loop chilling system was installed, resulting in an estimated US\$45,000 saving in energy and maintenance costs.
- At our explosives manufacturing plant in Carthage, Missouri, US, the Emulsion Chub plant was connected to the plant steam system to eliminate the need for a small boiler. During 2012/13 this saved approximately 42,000 GJ of natural gas, also saving US\$120,000 and reducing emissions by 2,200 t CO<sub>2</sub>e.



## Water

Our Australian sites and those in the South West of the United States operate in regions where water conservation is a critical issue. In other regions, where there is higher rainfall, we recognise that water management is also important. The risks and opportunities associated with water management as it relates to climate change have been assessed. These are described in our Carbon Disclosure Water Project submission, which we submitted for the first time in 2013. A copy of the submission is available at [www.incitecpivot.com.au](http://www.incitecpivot.com.au)

Ammonia is the key component of our explosives and fertiliser products. Within our ammonia plants, the majority of water use is for cooling during the manufacturing process. A small percentage is used for steam to power equipment and as an input for the chemical reaction that makes ammonia.

Our Australian water use is dominated by our operations at the remote Phosphate Hill site, where mine de-watering (transferring unused groundwater that flows into the mine to a local creek) contributes approximately 63 percent of Australian total water use.

Our North American water use is dominated by our operations at Cheyenne, Wyoming and St Helens, Oregon, where 98 percent of total water use in these regions is for cooling purposes only.

At Cheyenne, groundwater wells provide the water for the site. All generated wastewater streams, along with all precipitation falling on and in close proximity to the site are collected in surface impoundments, and subsequently deep well injected into salt water reservoirs one mile below ground surface due to the inability to discharge to surface waters. Pressure drop testing and monitoring is conducted to ensure that the injected water stays well below the potable ground water reservoir, which is located higher, above the deep saline water.

At St Helens, 99 percent of water used at the site is drawn from the Columbia River, treated to remove river sediments and used for non-contact cooling. This water is then returned to the river as clean water, in accordance with our licence requirements.

## Water use

During 2012/13, we used 43,183 megalitres (ML) of water at our sites, approximately the same as in 2011/12. We have restated our 2011/12 water use from 15,999 ML to 43,359 ML to include non-contact cooling water used at our St Helens, Oregon site, which is treated and returned to the Columbia River as clean water, in accordance with our licence requirements.

Prior to a review of our water use, undertaken in 2012/13, this water had not been included in our overall water use figures.

Our total reported water use includes municipal water, groundwater, collected storm-water (rainwater collected from the ground on our sites), surface water from natural waterways, desalinated water and harvested rainwater from our roofs. A large proportion of this water is used more than once within our plants, but most sites do not meter this recycling of water.

392 ML of water was recycled and reused across our operations during 2012/13, representing 1 percent of our total water use.

## Water discharge

During 2012/13, we discharged 32,744,774m<sup>3</sup> of water from our sites to the environment. This is an increase of 7 percent from last year which is due to increased production at several of our North American plants. This total discharge excludes sewage, discharge of collected rainwater and waste water removed for treatment or disposal as liquid waste (which is included in the waste data, below).

As shown in the graph below, cooling water was predominantly discharged to the natural waterways from which it was taken.

We monitor the water quality of such discharges on an ongoing basis to meet local regulatory requirements for trade waste-water, and also seek to improve water quality beyond the standards required by licensing wherever possible. During 2012/13 our site in Carthage, Missouri, US installed a plant to capture a waste water stream high in carbonates and nitrates in order to turn it into liquid fertiliser, preventing discharge of the nutrients to local waterways.

## Water saving initiatives

- 184,481 kL of water was recovered from the waste phosphogypsum stockpiles at our Phosphate Hill site in Queensland, Australia, reducing water withdrawal at this site. This project is the basis of the Keystone Project One water target for the site.
- Our new Waggaman, Louisiana, US ammonia plant was designed so that cooling water will be drawn from the plentiful supply of the Mississippi River and returned after treatment, ensuring excellent water quality.
- A new electrodialysis reversal unit installed in late 2011/12 at our site in Louisiana, Missouri, US has ramped up production during 2012/13 with impressive results. The unit has also allowed an estimated 15 ML of water to be reused, as well as recovering 156 tonnes of nitrates from waste water this year. These nutrients were then re-used within the manufacturing process, rather than being discharged from the site.
- On September 23, 2013, a mobile reverse osmosis unit was introduced to our manufacturing site at Cheyenne, Wyoming, US to recycle waste water. Savings will be seen in the 2013/14 year.

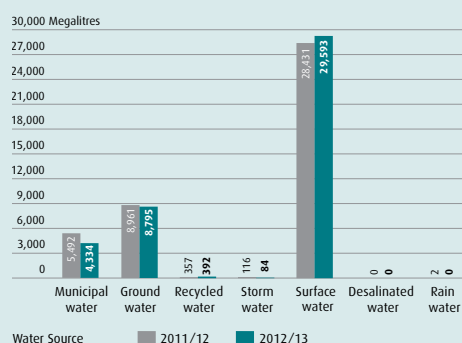
## Waste

During 2012/13, our sites generated approximately 8,669 tonnes of solid waste, 1,877,654 tonnes of solid chemical waste and 18,606 kL of liquid waste.

In absolute terms, our sites increased the amount of solid waste generated by 4 percent, decreased the amount of solid chemical waste by 23 percent and increased the amount of liquid waste by 6 percent. These changes are explained in the relevant sections below.

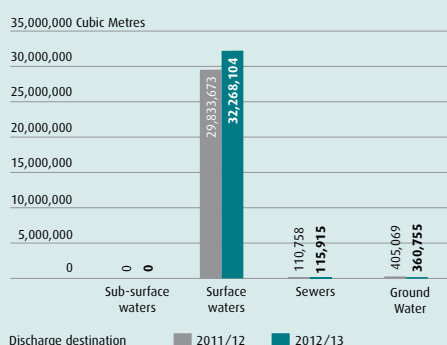
### Water use by source

Total water used was 43,183 megalitres



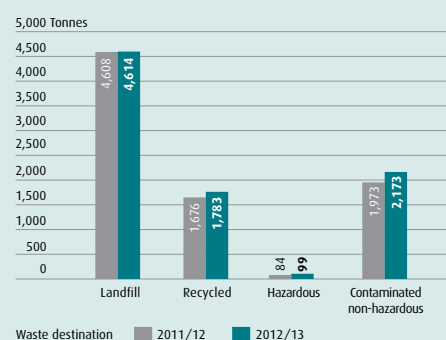
### Water discharge by destination

Total water discharged was 32,744,774m<sup>3</sup>



### Solid waste by destination

Total solid waste was 8,669 tonnes





## Solid waste

Our sites generated 8,669 tonnes of solid waste during 2012/13. The 4 percent year-on-year increase in absolute solid waste is mostly due to increased production and higher than normal construction waste, as we renovated the camp at our remote Phosphate Hill site in Queensland, Australia. Approximately 1 percent of our solid waste is classified as hazardous and is mostly waste from the manufacture of our explosives products.

Our waste reduction strategies focused on auditing, sorting and diverting waste streams to recycling in order to reduce waste-to-landfill during 2012/13. As opposed to last year, this resulted in increases of 13 percent in paper cardboard recycling, 15 percent in plastics recycling, 40 percent in timber recycling, 84 percent in commingled waste recycling and 94 percent in universal waste recycling (batteries, light bulbs/fittings and e-waste). This reduced our potential waste-to-landfill significantly.

In addition, 4,383 tonnes of ammonium nitrate that was unsuitable for use in explosives manufacturing was converted to liquid fertiliser at several of our sites. The nitrogen rich liquid fertiliser is sold to local farmers. Across our global US sites in 2012/13 another 4,580 tonnes of ammonium nitrate was sold as low grade fertiliser.

Further examples of waste reduction activities are discussed in the case study on page 27.

## Solid chemical waste

Our sites generated 1,877,654 tonnes of solid chemical waste during 2012/13. Over 99 percent of this was phosphogypsum chemical waste that was stockpiled at our site in Phosphate Hill, Queensland, Australia. This waste is considered hazardous because of its low pH, however water and phosphate are currently being reclaimed from these stockpiles (see adjoining case study) and it is planned that these stockpiles will ultimately be capped and re-vegetated. The other 2,134 tonnes (0.1 percent) of hazardous chemical waste was mostly generated by our North American explosives initiation system manufacturing plants. In comparison with last year, 23 percent less solid chemical waste was generated. This was directly due to a maintenance shutdown at our Phosphate Hill site which reduced production time, resulting in 426,952 less tonnes of phosphogypsum waste.



### CASE STUDY

## Keystone Project One Update



Keystone Project One involves the setting and implementation of reduction targets to reduce the consumption of energy, CO<sub>2</sub>e, water and waste-to-landfill at our manufacturing sites across the Asia Pacific region. As a result of this project, performance against set targets is being measured, and actions to create efficiencies are being supported. The associated projects aim to satisfy the 'triple bottom line' of a sustainable business, demonstrating positive outcomes in all three of the key areas of social, economic and environmental sustainability. We are pleased to report the following progress against targets:

4% Target:  
Achieved

Our **Energy Major** working group set a target to reduce energy and emissions by 3.5 percent per tonne by 2014/15 at our Gibson Island ammonia manufacturing plant, and have exceeded this during 2012/13. Because the ammonia plant is very energy intensive, this has resulted in a 4 percent energy reduction across the entire site, which also makes urea, granulated fertiliser and has a large product distribution centre. Total energy use at the site has fallen from an intensity of 46.98 units/t in 2009/10 to 45.1 units/tonne in 2012/13. Emissions for the site have fallen from 2.1tCO<sub>2</sub>e/t to 1.9tCO<sub>2</sub>e/t, a reduction of more than 10 percent. These savings were achieved through various energy efficiency projects including the painting of the inside of the ammonia reformer with heat reflective paint.

12% Target:  
Achieved

Our **Energy Minor** working group set several reduction targets at our less energy intensive manufacturing sites. In addition to the 10 percent reduction target reached at the Helidon initiating systems manufacturing site which we reported last year, our Geelong SSP fertiliser manufacturing site has met its 12 percent reduction in energy per tonne. Due to various energy efficiency projects, the site reduced its energy per tonne from 740MJ/t to 650 MJ/t by December 2012, resulting in a reduction of 0.1 tCO<sub>2</sub>e per tonne and saving A\$49,013 in energy and carbon costs.

10% Target challenged:  
3% achieved

Our **Water** working group set two reduction targets totaling 10 percent per tonne across our Asia Pacific manufacturing sites. While one is progressing, the other has been delayed indefinitely. At our Phosphate Hill fertiliser manufacturing site, water recovery from waste phosphogypsum stacks has recovered 184.5 ML of water during 2012/13. This equates to a 3 percent reduction in water per tonne at the site. In addition, 38,838 tonnes of phosphate have been recovered from the reclaimed water, saving the site A\$6.5 million and making this valuable plant nutrient available for use in our fertilisers. Unfortunately, a target to make use of recycled water to reduce potable water usage at our Gibson Island, Queensland site by more than 10 percent has been challenged.

10% Target:  
Exceeded

Our **Waste** working group set multiple site based targets across Asia Pacific sites which, if met, would result in a 10 percent reduction in waste-to-landfill per total production units against 2011 baselines by 2014/15. This year we are pleased to report an absolute reduction of more than 15 percent in waste-to-landfill from 3,744 tonnes in 2011/12 to 3,110 tonnes in 2012/13. The current year's figure includes 832 tonnes of construction waste from renovations at our Phosphate Hill Camp, so further reductions are expected in 2013/14. Since our Australian business has added the Moranbah facility and increased production during these years, we have clearly exceeded our 10 percent/t reduction target.

## ENVIRONMENT

### Liquid waste

Our sites generated 18,606 kL of liquid waste that was sent offsite for disposal during 2012/13. This includes 12,319 kL of contaminated water, 5,966 kL of hazardous liquid waste and 321 kL of non-hazardous waste. Approximately 49 percent of this waste is nitrogen-rich water from our fertiliser manufacturing and distribution sites in Australia that is sent offsite to third parties for use as fertiliser and/or woodchip additive. 61 percent of the hazardous waste was septic liquid or sludge (considered a bio-hazard) which was sent offsite for disposal or treatment.

The 6 percent reduction in liquid wastes from last year was mainly due to reductions in septic waste at our Moranbah, Queensland, Australia site and reduced rainfall across our Australian fertiliser manufacturing and distribution sites. At Moranbah, the construction workforce was reduced as the site was completed and the camp site was no longer required, reducing sewage waste associated with the sewage treatment plant at the camp. Reduced rainfall and run off across Australian sites created less nitrogen rich waste water across our fertiliser sites.

### Waste reduction initiatives

Examples of the waste reduction activities undertaken throughout the reporting period include:

- Our initiating systems plant in Helidon, Queensland, Australia has used single stream recycling to reduce waste-to-landfill by 17 percent from our 2010 baseline year.
- 38,838 tonnes of phosphate was recovered from the waste phosphogypsum stockpiles at our Phosphate Hill site in Queensland, Australia, also reducing water withdrawal.
- Our manufacturing site in Cheyenne, Wyoming, US, has increased its recycling of commingled waste by 28 percent, steel by 55 percent, other metals by 64 percent and universal waste by 82 percent after working with their waste contractor to drive process efficiencies. This project has diverted 23 tonnes of waste from landfill during 2012/13.
- Our manufacturing site at St Helens, Oregon, US started a toner recycling program, recycling 78 litres of toner so far.
- Streaming and recycling across our Asia Pacific explosives business has increased the recycling of commingled waste by 60 percent, plastics by 51 percent, steel and

other metals by 60 percent, and timber by 41 percent compared to last year, diverting 258 tonnes of waste from landfill during 2012/13.

- Our explosives manufacturing site in Wolf Lake, Illinois, US, used BEx tools to reduce loss and waste of paper, plastics, metals and oils as well as product, energy and water. Read more about Wolf Lake on page 27.

## Environmental compliance

As previously noted, we are defined as a "large emitter" under the Australian National Greenhouse and Energy Reporting System (NGERS) and are required to report annually on energy and GHG emissions associated with more than 50 sites across Australia. Direct and indirect emissions from our Australian operations are reported to the Government under this national initiative, which began in 2009.

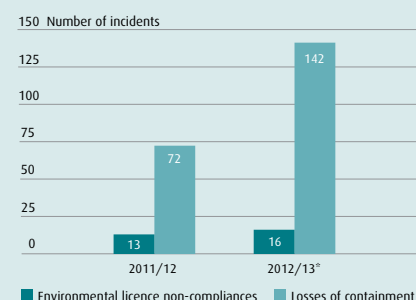
As part of our review of internal controls and reporting procedures, assurance was obtained over our Australian GHG emissions, energy consumption and production figures for the period 1 July 2012 to 30 June 2013. The third party issued an unqualified opinion over our reported emissions, energy production and energy consumption.

We supply data regarding our Australian energy consumption and the emissions to air associated with the manufacture of fertiliser to Fertilizer Australia ([www.fifa.asn.au](http://www.fifa.asn.au)) each year, which is published as part of their annual consolidated Public Environment Report. Details of emissions are also supplied to the International Fertilizer Association ([www.fertilizer.org](http://www.fertilizer.org)) for consolidated public reporting.

We report environmental release and discharge data to the National Pollutants Inventory in Australia, the Toxic Release Inventory in the United States, the National Pollutant Release Inventory in Canada and the Register of Pollutant Release and Transfer in Mexico.

In 2011, in New South Wales (NSW), Australia, the Protection of the Environment Operations Act 1997 was amended to require holders of Environment Protection Licences who undertake pollution monitoring as a result of a licence condition to publish monitoring data on their corporate website from 31 March 2012. Of the five Environment Protection Licences which we hold for our NSW sites, there are two which require us to undertake pollution monitoring (Kooragang Island & Cockle Creek) and we continue to publish this data on our website.

### Environmental non-compliance incidents of Category 2+



\* Categories have been redefined in 2013. Refer to descriptions of categories below.

We are subject to environmental regulation under the jurisdiction of the countries in which we operate including, Australia, United States of America, Mexico, Canada, Indonesia, Papua New Guinea and Turkey. These environmental laws and regulations generally address the potential aspects and impacts of our activities in relation to, among other things, air and noise quality, soil, water, biodiversity and wildlife.

We operate under a Global Health, Safety and Environment Management System which sets out guidelines on the Group's approach to environmental management, including a requirement for sites to undertake Environmental Site Assessments. In addition to this we continue to devote considerable resources to remediating legacy sites, namely sites at which operations have ceased, in line with our corporate value to "Care for the Community & our Environment".

In certain jurisdictions, the Group holds licences for some of our operations and activities from the relevant environmental regulator. We measure our compliance with such licences and report statutory non-compliances as required.

Measurement of our environmental performance is based upon the potential consequence (not the actual impact) of incidents which are reported across four levels:

- Category 1 – Minor
- Category 2 – Moderate
- Category 3 – Serious or Major
- Category 4 – Extreme or Catastrophic

Environmental events are categorised as 'licence non-compliance incidents' and 'site losses of containment'. For all incidents and near misses reported in the 2012/13 financial year period, the appropriate reporting and follow-up actions have been initiated.

### Licence non-compliance incidents

During the 2012/13 financial year, there were 14 Category 2 and two Category 3 environmental licence non-compliances.

Examples of Category 2 non-compliances that took place in 2012/13 include old diesel drums being stored in unbunded areas during inspections, unusual circumstances under which air or water emissions exceeded amounts approved by the licence, and a finding that record keeping procedures around waste or water processes did not meet licensing requirements.

The environmental fines received during the reporting period were:

Site	Offence	Our response	Fine
Kooragang Island, NSW, Australia	Tracking of fertiliser on roadway by customer trucks	We invested \$490,000 to install a wheel wash system for our customer trucks to prevent any further incidents.	A\$1500
Warkworth, NSW, Australia	Failure to submit a suitably detailed and appropriate Remediation Action Plan by due date	Site management responded immediately by engaging a new contractor to complete and submit the Plan.	A\$1500
Pinkenba, QLD, Australia	Non-compliance with licensing storage conditions, resulting in potential for storm-water pollution of water ways	Immediate action was taken to complete a register of actions, including the movement of stockpiles inside sheds.	A\$2200



In each case, we acted immediately to rectify these non-compliances and train employees to ensure future compliance. These incidents were recorded as Category 2 licence non-compliances because they required resolution of administrative findings with authorities and there was the potential for a citation or formal warning in each case.

Our Category 3 non-compliances both related to spills of our products during the unloading of ships at Australian Port sites. In the first, granular fertiliser was observed trickling from a grab bucket as it moved from the ship to the hopper, resulting in a loss to the river. Ship unloading activities were immediately ceased and the stevedoring company was contacted and asked to relocate shielding to protect the river from product loss. In the second, a leak was observed on the sulphuric acid import line at Kooragang Island, New South Wales. Although the leak was successfully contained in a drip tray, unloading was ceased immediately and a tanker was called to pump out the line, which was subsequently repaired and checked along its entire length to ensure no future leaks. These were recorded as Category 3 non-compliances because they required immediate notification to regulatory authorities and there was the potential for enforcement action.

### Loss of containment incidents

During 2012/13 there were 102 Category 2, 39 Category 3 and 1 Category 4 losses of containment. We have restated our 2011/12 losses of containment from 14 to 72 due to increased rigour in our data collection processes. The increase in losses of containment this year is due to the reclassification of categories in 2013 and increased rigour in our reporting.

Examples of our Category 2 losses of containment include a localised SO<sub>2</sub> release from a dilution air duct at our site in Mount Isa, Queensland, Australia and an emulsion overflow of approximately 2kg during transfer to mobile plant at our site in Binungan, Indonesia. Mechanical faults were immediately repaired at both sites. These incidents were classified as Category 2 because they required immediate notification to regulatory authorities, they had the potential to damage local flora and fauna, and there was the potential for pollution which may raise local concern and media attention.

Examples of our Category 3 losses of containment include the release of ammonia gas (NH<sub>3</sub>) and ammonium nitrate solution (NH<sub>4</sub>NO<sub>3</sub>) at our site in Moranbah, and a small amount of oil washing into a storm water drain at our site in Gibson Island, both in Queensland, Australia. The Moranbah release was due to corrosion of a flow valve, which was immediately isolated and replaced, with the spill being contained to a small area on our site. At Gibson Island, workshop employees observed oil leaking from discarded machinery and immediately removed the parts, also placing an oil soaker sock around the stormwater drain

### CASE STUDY

## Business excellence making Wolf Lake more sustainable



Our Wolf Lake initiating systems manufacturing plant in Illinois, US is utilising the *BEx Loss and Waste* process to reduce waste and enhance our standing within the local community. The team recycles at every opportunity, recycling over 100 tonnes of materials including paper, metals, oils and plastics in 2012/13.

The proceeds from recycling are often donated back to the community to support charitable efforts and maintain community engagement. One great example is the reclamation of timber pallets. All unusable pallets are donated to a local food bank which repurposes them and uses the proceeds to buy food for those less fortunate.

The Loss and Waste events in both manufacturing processes at Wolf Lake have identified ways to improve resource efficiency and minimise environmental impacts.

In the NONEL department projects include reductions in waste shock tube, defective caps, and energy efficiency projects such as maximising air compressor efficiency. At the Booster plant, opportunities were identified in scrubber efficiency, PPE reclamation, uniform laundry installation eliminating the need for tyvek uniform disposal with estimated savings of \$60,000 per year, reutilisation of thousands of pounds of explosive floor sweeps along with 50 percent reductions in their creation, rinsing centrifuge bags to reclaim residual PETN, and reusing explosives boxes for internal storage.

All of these projects have been initiated while ensuring *Zero Harm* is maintained. The Wolf Lake plant just celebrated one year injury free on October 8, 2013.

to prevent the spilled oil washing in to it. These were classified as Category 3 because they required immediate notification and resolution of administrative findings with regulatory authorities, as well as having the potential for impact on local flora, fauna and heritage values.

Our Category 4 loss of containment involved a sulphur trioxide (SO<sub>3</sub>) release at our site in Mount Isa, Queensland, Australia due to a faulty analyser. Site management responded immediately by dropping metgas, shutting down the plant and taking a sample of the gas. It was found that there was no impact on either the environment or the community. A process has been established to ensure spare analysers are available in order to prevent future releases. This incident was recorded as a Category 4 because there was potential for authorities to mobilise emergency response and because the incident required immediate notification to regulatory authorities as well as resolution of administrative findings.

### Site remediation

We are addressing a number of legacy contamination issues caused by our long term operations, as well as issues inherited from predecessors or neighboring operations. During 2012/13 remediation has progressed very successfully at those sites considered to be material. Most of these properties have long operational histories and a legacy of contamination

that needed to be remediated to today's standards.

Several sites now require only periodic monitoring, while others have either immaterial impacts or are undergoing active phases of remediation.

Treatment of onsite soil and water at the Parafield Gardens and Wallaroo sites in South Australia has been successfully completed and both sites are currently awaiting formal EPA approval prior to sale. There has been a significant reduction in energy use and the use of treatment chemicals at both sites, which were previously required to operate water treatment plants.

The Wallaroo site was used as a Fertiliser Distribution Centre and was closed in 2006, having previously been the site for another company's copper smelter. Since closure, we have invested A\$20 million to remediate on site soil and groundwater. An area of historical significance on the site was identified and preserved. Heritage works on this portion of the site have included fencing around the perimeter, a pedestrian path, observation nodes, seating, informative signage, planting of trees and landscaping to include a grassed area for common use. The heritage site is now complete and we are very pleased to be able to transfer it to the District Council of the Copper Coast.



# Product & Services

*Improving sustainability across the life cycle of our products*

## Overview

*We are an international industrial chemicals company that develops, manufactures and distributes nitrogen-based commercial explosives and fertilisers, as well as associated products and services.*

*Our sustainability agenda focuses our efforts on improving the environmental and social aspects of the manufacture and use of our products, and working with our customers and suppliers to improve the life cycle sustainability of our products. The greatest impact we can have is in creating products with improved sustainability outcomes and in helping our customers select and use our products to minimise adverse environmental and social impacts.*

## 2013 highlights

- We established mechanisms for driving sustainable sourcing practices throughout our supply chain.
- We reformulated an enhanced efficiency nitrogen product, Green NV, improving its shelf life and performance
- We commercialised the use of waste oil in emulsion explosives manufacture in Indonesia
- We progressed our research and development programs, achieving sustainable outcomes through new product development
- We continued to work with our customers to promote best practice use of our products
- Our NO<sub>x</sub> and vibration reduction technologies have given us a competitive advantage with customers in the US market

## Key challenges and opportunities

Our key challenges and opportunities include:

- The availability and cost of Australian natural gas as a raw material
- Quantifying and managing the impact of our products across their life cycle
- Educating our customers about minimising the impacts of our products' use
- Engaging our suppliers to improve the sustainability outcomes across our supply chain
- Managing the growth of sales of new, sustainable technologies, ensuring that we are able to meet customer demand

## Strategic priorities

In order to achieve sustainable outcomes in the development and delivery of our products and services we will continue to:

- Work with our customers to develop practical solutions that can be used in their day to day operations to drive sustainable outcomes as well as cost, yield and productivity improvements
- Assess and, where feasible, improve the environmental and social impacts of our products across their life cycle
- Work with our customers to encourage them to use our products to achieve the best sustainability outcomes
- Implement our approach to supply chain sustainability





## Fertilisers

Our fertiliser business supplies approximately two million tonnes of fertiliser per year across Eastern and Southern Australia. We distribute fertilisers manufactured in our four manufacturing operations in Australia as well as imported fertilisers. Our product range includes products such as urea, ammonium phosphates, ammonium sulphate, single superphosphates, anhydrous ammonia as well as speciality products such as those treated with urease and nitrification inhibitors. Blending facilities for solid fertilisers are located at strategic centres throughout the market place, offering a range of blends and, for farmers who request them, individual custom blends tailored to specific needs.

In our Fertiliser business, our sustainability focus within the value chain is on ensuring that the health, safety and environmental impact of products, product packaging and services are considered and managed responsibly throughout the product life cycle, with a particular emphasis on the effective use of fertilisers.

Our efforts to mitigate the environmental impacts of our fertiliser products include:

- Reducing the greenhouse gas emissions, water use and waste associated with the manufacturing and transport of our fertilisers (discussed in the Environment section of this Report).
- Developing and promoting enhanced efficiency fertilisers.
- Maintaining product quality.
- Adopting and promoting the Fertcare principles and code of practice for responsible fertiliser use, a joint initiative between Fertilizer Australia Inc. and the Australian Fertiliser Services Association.

Product Stewardship is the responsibility of the Agronomy function within the Fertiliser business and our approach is defined in our Product Design and Stewardship Standard, included in our Health, Safety and Environment Management System. The Standard requires that “health, safety and environmental impact of products, product packaging and services are considered and managed responsibly and ethically throughout the product life cycle. The product life cycle includes research and development; purchase of raw materials, intermediates and finished products; manufacture; formulation; packaging; labelling; storage; sale; transport; use and the disposal of damaged products, waste and packaging.”

Many industry issues concerning agricultural fertilisers are not confined to individual suppliers. These are addressed at the industry level through Fertilizer Australia. As Australia’s largest fertiliser supplier, IPL is a key member of Fertilizer Australia and actively engages in their Product Stewardship activities.

### Raw materials

#### Supplier engagement

Our Global Procurement team has put a number of mechanisms in place to assess the sustainability practices of our suppliers. For example, procurement managers assess and measure suppliers’ performance against a number of sustainability criteria during regular supplier audits, using our Supplier Audit Report template and Supplier Performance Scorecard. Action plans are then issued, and worked through with suppliers where required. Contracts between IPL and materials suppliers also include provisions which outline our expectations of suppliers’ workplace health, safety and environmental performance.

Potential suppliers are assessed using a questionnaire that covers social, environmental and governance aspects to ensure sustainability risks are well understood and addressed during the supplier assessment process. Further to this, individual ‘deep-dive’ audits are undertaken on specific areas that are identified as being high risk.

As per the Company’s Group Risk Policy, the oversight and management of material business risks is managed within a comprehensive risk management process, overseen by the Board’s Audit and Risk Committee. Risks are typically categorised as follows: health, safety and environment; governance; strategy & planning, finance; operations; and compliance/reporting.

#### Supply of natural gas

Energy is an important issue for our business, particularly the supply of natural gas, which is used as both an energy source and as a raw material in the production of ammonia, a prerequisite for the production of nitrogen fertilisers, such as urea and ammonium phosphates, and for ammonium nitrate, used as an explosive. Natural gas accounts for approximately 70-80 percent of the cost of ammonia manufacture.

In Australia, access to competitively priced gas is a well-documented challenge for the manufacturing industry. Despite the extensive development of non-conventional gas resources in Eastern Australia, the commitment by gas companies to long term export gas contracts has created a supply issue and rapidly moved Eastern Australian gas supply contracts to Export Parity Pricing.

## PRODUCTS & SERVICES

We believe it is essential that Australia finds a solution which balances its responsibility to harness natural gas supplies to sustain and build value-added manufacturing with its desire to maintain a strong energy export market.

IPL, along with a number of other major Australian manufacturers, is a member of Manufacturing Australia and the Business Council of Australia, organisations working with federal and state governments to find a solution in the national interest.

### Sourcing Phosphate rock

In the production of both single superphosphate fertilisers (SSP) and ammonium phosphate fertilisers, we use phosphate rock, a naturally occurring mineral rock.

At our plant at Phosphate Hill in Queensland, Australia we produce ammonium phosphate fertilisers, namely mono-ammonium phosphate (MAP) and di-ammonium phosphate (DAP). We source the phosphate rock for MAP and DAP from our own phosphate rock mine which is adjacent to the plant. In 2012/13, we produced approximately 787,000 tonnes of ammonium phosphates.

At our Portland and Geelong plants in Victoria, Australia we manufacture SSP.

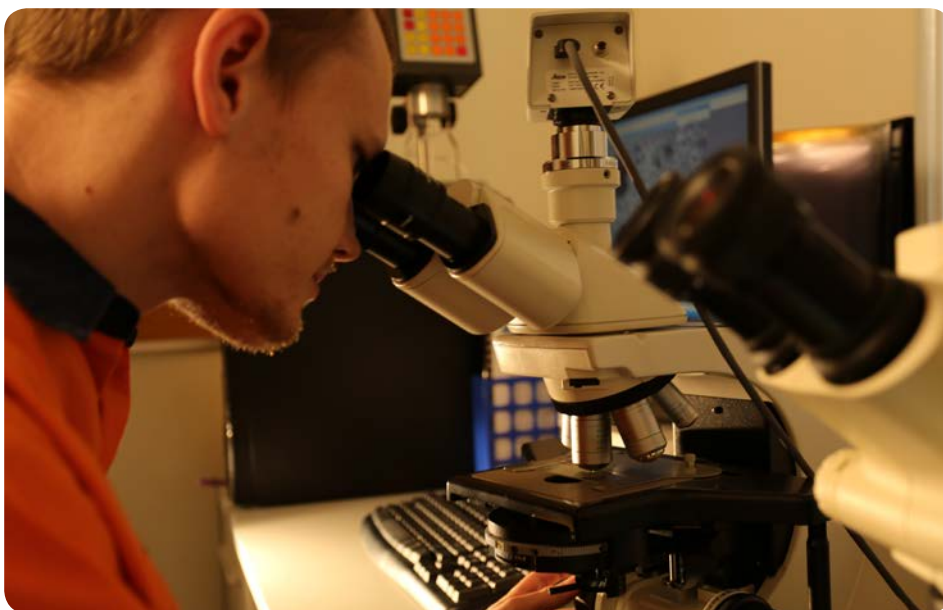
The composition of phosphate rock used at these plants varies according to place of origin and presents therefore with varying levels of available phosphorus, cadmium, odour and reactivity, that is, the capability of the rock to react with sulphuric acid and release available phosphorus.

Our plants are configured to produce SSP using a blend of phosphate rock from different sources thereby balancing the above factors to produce a product that meets Australia's regulations with regard to available phosphorus.

In 2012/13 we produced approximately 325,000 tonnes of SSP using a blend of phosphate rock from Nauru and Christmas Island, and from our supplier, Phosphates de Boucraa SA, (a wholly owned subsidiary of Officè Cherifien des Phosphates), which included rock sourced from the Non Self Governing Territory of Western Sahara, with the latter comprising approximately one half of the rock blend used.

The situation regarding the Kingdom of Morocco and the status of the Non Self Governing Territory of Western Sahara is a complex one, managed under the auspices of the United Nations. We continue to monitor the ongoing developments with regard to the Non Self Governing Territory of Western Sahara. IPL has had regard to the UN Global Compact's ten principles, OECD Guidelines for Multinational Enterprises, as well as relevant provisions of international law and Australian law.

We remain satisfied that we are not in breach of either Australian law or International law, as there has been no determination by the UN or any other competent legal authority that the production and use of phosphate from the Non Self Governing Territory of Western Sahara is in violation of any applicable law or the Geneva Convention.



Over many years IPL has engaged in dialogue and enquiry with many parties on this matter. In particular, IPL meets periodically with the Australian Department of Foreign Affairs and Trade, and has had discussions with Office Cherifien des Phosphates, its supplier of phosphate rock from the Non Self Governing Territory of Western Sahara, as well as with Australian ambassadors to the Kingdom of Morocco.

IPL will continue to monitor this complex situation and has regard to its legal and ethical obligations in its sourcing activities.

### Sulphuric Acid

We use sulphuric acid in the manufacture of SSP, MAP, DAP and granulated ammonium sulfate. We produce sulphuric acid at our plant at Mount Isa in Queensland, Australia which is used in the plant at Phosphate Hill, and we source additional acid, including for our SSP plants, from both domestic and international suppliers.

### Product quality

Fertilisers contain various impurities. These are mostly derived from the raw materials used in fertiliser manufacture.

We are committed to providing products and services that meet customer needs. Our Quality Policy, available on [www.incitecpivotfertilisers.com.au](http://www.incitecpivotfertilisers.com.au) outlines our commitment to providing products and services that meet our customers' needs. We manufacture a wide range of fertilisers in Australia, and source products from other Australian suppliers and overseas to offer a comprehensive product range.

In Australia, fertilisers must meet certain standards and are labelled in accordance with relevant statutory requirements and the Fertiliser Australia National Code of Practice for Fertilizer Description and Labelling. We have set specifications for domestically manufactured and imported fertilisers that meet these standards. Routine laboratory analyses are performed to ensure products meet these specifications.

Our manufacturing is monitored by our own Quality Control Laboratories. All of our product imports are sourced in compliance with the Fertiliser Australia Purchasing Code of Practice. Product Specifications are set that meet statutory limits and market needs. Certificates of Analysis are sought from suppliers. The delivered products are then analysed through our own Quality Control Laboratories to ensure they are within specification, e.g. maximum limits of heavy metal impurities such as cadmium, lead and mercury. We declare the impurity content of fertilisers on the product label.

### Research and Development

The focus of our extension and research programs is on the efficient use of existing fertiliser products. Considerable emphasis is placed on applying these products in the right place and at the right time. Soil and plant tissue analysis are used to better predict the rates at which fertilisers should be applied, and the use of computer based decision support tools to fine tune fertiliser programs is gaining favour within the industry.

We operate one of the largest commercial plant nutrition research and development programs in Australia, with more than 30 replicated research trials per annum, often in conjunction with customers, independent organisations and agronomists. Our long term experiments aim to produce insights that benefit Australian farmers and allow them to improve fertiliser use efficiency and adopt sustainable fertiliser practices.

We are also committed to helping farmers improve productivity and profitability through expanding and developing our range of products and services. The development of new fertilisers is driven by the needs of farmers and is focused on improving nutrient-use efficiency, flexibility and environmental performance.



One of our sustainability keystone projects is the establishment of a joint research partnership to study nitrogen losses from conventional and enhanced efficiency fertilisers to reduce environmental impacts of fertiliser use. IPL offers two enhanced efficiency fertilisers:

- Entec® is a treatment that retains nitrogen in the stable ammonium form for an extended period. While still available to plants as a nitrogen source, ammonium nitrogen is not subject to leaching or denitrification losses. This year we have focussed on delivering Entec training and accreditation for our customers to ensure qualified, appropriately trained advisors are taking the product to market. 340 trained advisors are now in place across our network.
- Green Urea™ is a top dressing fertiliser, recommended where volatilisation losses of ammonia are likely. Green Urea products contain urea treated with the urease inhibitor, N-(n-butyl) thiophosphoric triamide (NBPT), and are aimed at delaying hydrolysis of urea into unstable forms that may be lost to the atmosphere, thereby reducing emissions related to fertiliser usage.

This year a new formula of Green Urea, called Green Urea NV has been developed and launched to the market. Replacing Green Urea 7 and Green Urea 14, the new formula can help to protect against volatilisation losses, particularly for:

- intensive dairy and beef pasture production
- irrigated cotton where urea is applied mid-season
- agronomic forestry situations
- field crops where urea is applied to bare soil or soon after crop germination.

Green Urea NV fertiliser contains a new formulation of urease inhibitor, known as LOCKDOWN™. While LOCKDOWN contains the same active ingredient as the urease inhibitor used in Green Urea 7 and Green Urea 14, it has an improved set of solvents and wetting agents which help to stabilise the product.

In 2012/13, we continued our three year joint research project with the University of Melbourne into:

- Mitigation of indirect greenhouse gases in intensive agricultural production systems with the use of inhibitors.
- Reducing nitrous oxide emissions from applied nitrogen with nitrification inhibitors through identification of key drivers of performance.

These projects are jointly funded by the Australian Government's Department of Agriculture, Fisheries and Forestry and continue our long standing association with the University of Melbourne.

We are also funding research into enhanced efficiency fertilisers in cereals, grass pastures, sugarcane, potatoes, bananas and vegetable crops.

While these projects have already produced key findings that have been incorporated in to product development process, the full results of this research won't be available until the trials are completed in 2015.

### Best fertiliser management practices

Fertilisers are essential to productive farming, allowing farmers to grow more food on a decreased area of arable land. High yields are necessary to support the world's growing population.

To optimise food and fibre production per unit of nutrient input and return on investment, attention must be paid to how, when and where fertilisers are applied. It is also important that fertilisers are applied at appropriate rates. Too little, and crop and pasture yields may be sacrificed and produce quality affected. Too much, and the nutrients applied in excess of crop demands may be lost, either to the atmosphere or to waterways. Nutrient enrichment of waterways may stimulate additional weed and algal growth.

To optimise production per unit of nutrient input, it is important that fertilisers are used at appropriate rates and in a responsible manner. Our Fertiliser business is an active member of the International Plant Nutrition Institute and promotes their 4R nutrient stewardship: Right source; Right rate; Right time; and Right place.

To support this, our analytical laboratory (Nutrient Advantage) offers specialist soil, plant and water testing to advisors and farmers. This, together with professional advice from our team of agronomists and our computerised decision-support system, Nutrient Advantage Advice, provides the diagnostic data, best practice information and advice farmers need to choose the right fertilisers and apply them correctly, in order to optimise outcomes from the use of nutrients.

The system is audited by Fertilizer Australia every two years to ensure it complies with their fertiliser management best practice recommendations.

This year our fertiliser business ran a series of Agronomy Community Forums across regional Australia. More than 300 agronomists (plant and soil advisers) attended the forums, held in July and August, to update their knowledge, share ideas and consider the truths and myths associated with the use of fertilisers. Guest speakers included leading agronomists, scientists, researchers and fertiliser advisers.

Our fertilisers business also consolidated its agronomy training program in 2012/13, hosting 12 Agronomy in Practice courses throughout the year across Eastern Australia. The Agronomy in Practice course focuses on the practical aspects of making credible fertiliser recommendations to farmers, whether they're involved in cropping, pasture, summer crops, sugar cane or horticulture. The course is aimed at training the next generation of agronomists as well as current advisers who want to enhance their skills in soil and plant nutrition. This year's participants include a cross-section of commercial and private agronomists, government advisers and for the third year in a row, students from Charles Sturt University's Bachelor of Agricultural Science program. Like other participants, the students will learn how to manage samples through the Nutrient Advantage Advice software and complete several real life' case studies to become eligible for accreditation and potentially improve their employment prospects.

Nutrient Advantage Advice is Incitec Pivot Fertilisers' Fertcare accredited decision support software system. Fertcare is amongst the leading programs addressing the issue of expanding food production to feed and clothe a growing global community through judicious use of fertiliser, while limiting the potential for off-site nutrient impacts such as eutrophication of waterways.

The program has been developed to equip people providing soil and plant nutrient advice to farmers with quality assurance to a set of national standards. This year 42 representatives from our fertilisers business undertook Fertcare training, with 36 receiving Fertcare A, four receiving Fertcare B and two receiving Fertcare C accreditation.



## PRODUCTS & SERVICES

### Product labelling and information

Our Fertiliser business complies with Australian state-based product labelling legislation and follows the National Code of Practice for Fertilizer Description and Labelling, developed by Fertilizer Australia. This code of practice aims to achieve uniform description and labelling of fertilisers across Australia.

We provide documentation and advice to our customers about:

- Product nutrient and impurity content, particularly with regard to substances that might produce an environmental or social impact.
- Safe use, storage and handling of the product.
- Disposal of the product and environmental/social impacts, as required by the appropriate laws in the countries in which we supply fertilisers.

This advice is supplied on our website, on the product label, in the Safety Data Sheet (SDS) or directly to the customer. Each SDS complies with the requirements of Safe Work Australia.

### Initiatives to reduce packaging waste

Over 80 percent of our fertiliser is supplied in bulk. 15 percent is distributed in bulk bags, 95 percent of which are returnable and are used an average of three times, subject to quality inspections upon each return, before being taken out of service. At the end of their life we export spent bulk bags to China for recycling.



This year we undertook a Life Cycle Assessment to determine the difference in carbon footprint between returnable and single trip bulk bags. Driven by our analysis that single trip bulk bags are safer for our customers, reduce fertiliser spills to the environment, require no washing and are more cost effective for our business, we are currently undertaking a review of our packaging strategy. Findings from the review will be implemented in 2014.

Only a small percentage of our total fertiliser product (5 percent) is distributed in small packs and we continue to investigate recyclable packaging that meets our product specifications. We are signatories to the Australian Packaging Covenant, a voluntary initiative by the Government and Industry to

reduce the environmental effects of packaging. Our five year plan and commitments under the APC are available on our website [www.incitecpivot.com.au](http://www.incitecpivot.com.au).

### Security of fertiliser products

Some of the fertilisers we manufacture and distribute are classified as security-sensitive and/or dangerous goods and as such, their storage, distribution and sale is regulated by Federal, State and sometimes local governments in Australia and the United States. We meet our regulatory compliance and licensing obligations surrounding those products, with internal procedures and training in place for our employees. In addition our sites are also managed under our own strict health, safety and environmental management system.

### Food security

To provide the food our growing global population demands, farmers are seeking to increase production on their land while minimising environmental impacts. We support this effort by working with researchers who seek to grow more food using best management soil practices and new technologies such as controlled-release fertilisers.

We provide agronomy services and fertiliser products to help Australian farmers increase their on-farm efficiency and productivity, making their business more sustainable in a competitive global market.

### Engaging online

Our Fertiliser business engages with representatives of the agricultural industry online at [www.incitecpivotfertilisers.com.au](http://www.incitecpivotfertilisers.com.au). We operate two online communities for farmers and agronomic advisors which focus on providing resources and support, particularly for those in remote locations.

The Farmer Community provides Australian farmers with valuable agricultural and industry information to assist with agronomic and fertiliser decision making. The Community was developed in response to a growing need for readily accessible information including new product information, agronomic advice and information about global fertiliser dynamics.

The Agronomy Community is a specialist nutrition website, bringing together Australia's leading agronomists. It is a comprehensive resource for plant nutrition agronomy and a community where members are invited to participate, interact and network with their peers. The site includes a wealth of plant nutrition information including trials data and reports, videos of fertiliser trials and photo galleries, industry journals, advice and articles. Established in 2010, the Agronomy Community online forum now has more than 800 members around Australia who share the common goal of advancing the science of plant nutrition.







## Explosives

Our Explosives business, Dyno Nobel, operates in the Americas, Europe, Australia and the Asia Pacific. It manufactures, distributes and sells bulk and packaged ammonium nitrate-based explosives and blasting supplies and services to customers in the mining, quarry, construction, pipeline and geophysical exploration industries.

Within our Explosives business, efforts to mitigate the environmental impacts of our products continue to be focused on improving the sustainability of the input materials we use to manufacture the product, as well as the impacts resulting from its use. This includes activities such as:

- Substituting higher impact raw materials such as perchlorate contaminated sodium nitrate with cleaner synthetic materials.
- Replacing traditional bulking agents with renewable or recycled materials.
- Recycling product that did not meet final specifications or has been returned by customers or was used during experimental work to manufacture new product. This product was previously treated as waste and burnt.
- Replacing virgin petrochemicals with oils from renewable and waste sources.
- Researching and developing explosives to minimise post-blast NO<sub>x</sub> fumes.
- Researching blast designs and products to reduce nitrate leaching and other post-blast impacts.

We are also reducing the greenhouse gas emissions, water use and waste associated with the manufacturing and transport of our explosives products (discussed in the Environment section of this report).

New or modified products are typically developed by our research and development team in conjunction with specific customers as directed by the Global Product Management teams. As such, the life cycle stages in which health and safety impacts of those products are assessed are dependent upon the customer's requirements. For explosives products, typically this would be focused on the impact of product use, with the assessment included in trials.

## Raw materials

### Supplier engagement

Our approach to sustainability in our supply chain is discussed in the 'Fertilisers' section on page 29.

### Supply of natural gas

The availability and supply of natural gas as a raw material is discussed in the 'Fertilisers' section on page 29.

## Research and development

### Bulking agents

Bulking agents are used in explosives to reduce the amount of energy per volume available, making explosives suitable for use in relatively soft ground. The application of bulking agents assists in better utilising blasting agents to fragment and displace material normally requiring mechanical methods, reducing diesel emissions from mining operations.

We have been investigating the use of recycled or renewable materials that have the technical characteristics required to be bulking agents. These may be able to replace the materials, such as virgin expanded polystyrene beads, currently used. The proposed recycled bulking materials would typically be considered as waste within the industries that generate them, so an additional benefit of this project is a reduction in waste across other supply chains. Investigation into the potential for the use of bulk bags generated from within our fertiliser business as a source material has commenced.

Trials of recycled plastic bulking agents, using an increasing fraction of blast size have been continuing at customer sites in Australia. The results to date have shown that the product blasts acceptably without visible NO<sub>x</sub> in soft, wet and natural surface ground types.

This year we have lodged a patent application and commenced trials for a new bulking agent at customer sites in Australia and Indonesia. The product uses recycled plastic pellets to provide a slow burning carbon source that acts to inhibit the post blast fumes that soft, wet ground is particularly prone to.

## Replacing virgin petrochemicals with bio-fuels and waste oils

In North America, we have developed technology that allows the use of bio-fuels and bio-fuel by-products as an alternative to petroleum-derived hydrocarbons for the manufacture of blasting agents and bulk emulsion products. This year this technology has been enabled in our product line, though take up has been slow, due to limited product availability and the relative costs associated with using bio-fuels if the mine site is not located close by. We are also working with customers to introduce technologies that use petrochemicals extracted from waste materials as part of the explosive composition. Waste materials such as discarded tyres and waste oil from machinery are ideal candidates for use, particularly at remote mine sites where trucking virgin materials in and waste materials out consumes resources and time.

One of our 2010-2013 sustainability keystone projects was to develop processes that would allow the use of waste oil for product manufacture, replacing virgin oils, such as diesel. In 2012 a series of trials were completed at our Technical Centre in Mount Thorley, New South Wales, Australia to test a product manufacturing process using waste oil, reconditioned to remove heavy metal particles. These trials proved successful and the product was released to market this year.



## PRODUCTS & SERVICES

The product is now being used at our customer site in Adaro, Indonesia and the success achieved at this pilot site has caused several other Indonesian customer sites to express an interest in transitioning to waste oil use.

This year our North American operations used 10,000,000 kg of recycled waste oil in the manufacture of explosive emulsions at our manufacturing sites. In Australia, treated waste oil from a third party supplier has been qualified as a raw material for the manufacture of ANFO at mines in the Pilbara, Western Australia, and in the Bowen Basin, Queensland.

### Minimising the impacts of blasting

#### NO<sub>x</sub> emissions

The use of ammonium nitrate bulk explosives during blasting activities can result in the generation of excessive nitrogen oxides (NO<sub>x</sub>) caused by the variable conditions and geology in which the products are used.

As NO<sub>x</sub> emissions can have significant health, safety and environment and community impacts, we have been researching and developing new and improved products and blasting methods to reduce NO<sub>x</sub> emissions.

Our research and development team provides information about research findings to the Product Management team, who are responsible for educating customers on product use and blast designs that aim to reduce NO<sub>x</sub> emissions. We have also contributed our technical knowledge to documentation published by regulatory bodies and industry groups. This includes the Code of Practice in the Prevention and Management of Blast Generated NO<sub>x</sub> Gases in Surface Blasting, released by the Australian Explosives Industry Safety Group in August 2011, and the Queensland Department of Natural Resources and Mines' Management of oxides of nitrogen in open cut blasting (Guidance Note 20), released November 2011.

Our Explosives business has partnered with Newcastle University in New South Wales, Australia to conduct a number of projects aimed at reducing the instance of NO<sub>x</sub> formation and, if formed, ways to treat the pollution. These projects are:

- **Large Scale Removal of NO<sub>x</sub> from detonation gas**

This project is studying ways to remove NO<sub>x</sub> from the atmosphere after it is formed by the detonation process.

- **Modelling of reactions of N<sub>2</sub>O and biomass molecules during detonation**

This project is investigating the use of biomass as a scavenger for NO<sub>x</sub> molecules, formed during detonation of explosives.

- **Effects of different additives in AN prill on NO<sub>x</sub> formation during thermal decomposition of AN**

This project is addressing the question of whether incorporating different additives in AN prill will reduce the likelihood of NO<sub>x</sub> fume generation during explosion.

#### Ground vibration

Our mining customers are seeking to reduce the ground vibration caused by the use of explosives. We are responding by training our customers in the use of electronic initiation system technology. This technology allows the more accurate detonation of a single blast hole, which in turn allows the use of a computer model to reduce the blast-induced shock waves that are transmitted through the ground. The detonations of each blast hole can be programmed to introduce interference between the shock waves, thus reducing the vibration that is felt. This year a significant increase in the use of electronic detonators has occurred in response to community concerns regarding ground vibration and noise pollution.

Improvements in emulsion technology and bulk blasting agent delivery systems are being applied to improve explosive energy to fragment rock. Customers are becoming more aware that explosive energy can be more efficiently used to provide positive results in the form of fragmentation and displacement of both waste material and ore. Utilising improved emulsion formulations in combination within new bulk delivery systems reduces mining costs associated with waste overburden removal in surface coal mines to reduce customer energy footprints. The use of explosive energy to displace overburden material can be more economical than traditional fuel consuming haul trucks or dozers.

#### Nitrate leaching

Typically, explosive denotation should result in no residual nitrate being left in the ground, but spilled or damaged product (or other substandard practices) can result in nitrate leaching. Nitrate leaching is particularly a problem when the soil has high water content or when blends containing porous ammonium nitrate prill are used. This is an industry issue that has become more important to our stakeholders over the past two years.

Our Research and Development team is continuing to research product solubility rates and water resistance as well as the best blast designs to minimise the risk of nitrate leaching. This year a product has been developed that shows improved water resistance, which has worked to reduce levels of post-blast nitrate leaching, and thus caused a reduction in NO<sub>x</sub> emissions. This product is now being trialled at a customer site in Queensland, Australia, and a reduction in NO<sub>x</sub> emissions has been observed.

We have also identified other proprietary modifications within existing formulations that provide improved water resistance and thus reduce leaching. The technology is still being investigated but is already being employed in some operations.

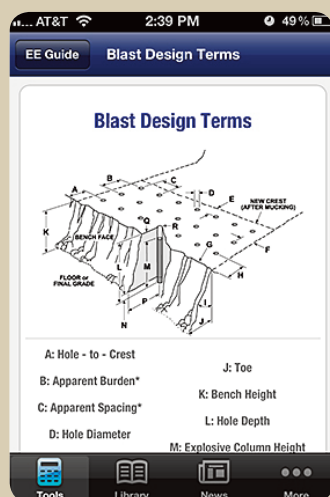
We have also developed new methodologies to understand nitrate levels in the water table. We use this information to modify existing products and develop new ones. We share this information with our customers to enable them to make better product selections and to reduce the level of leaching of ammonium nitrate into the environment.

This year we have developed documentation for customers to understand the causes of nitrate leaching and how to reduce leaching during product use. Technical expertise and support is also offered.

#### Security of supply

Many of our customers, particularly those in the mining industry, value continuity of supply of explosives to their sites.

In response, we have developed a detailed contingency planning process in conjunction with our large strategic customers.



#### Our Explosives business goes mobile

This year our Explosives business launched an Explosives Engineers' Mobile Phone App to share information with our customers about the most sustainable way to utilise our products.

The app equips current and potential customers with a full range of blasting tools that help optimise the blasting experience in the field. The Mobile Phone App provides an electronic method to research product information, reducing the amount of documentation printed in the field.

The Explosives Engineers' Mobile App includes seven critical blasting calculators, access to our technical library and a comprehensive set of Dyno Nobel product information, including product specs and application uses. Users can also receive real-time updates that feature Dyno Nobel news, recent innovations and new videos. Moreover, worldwide remote accessibility to the app caters to the fact that remote mine sites often experience difficulties connecting to mobile services.

In its first six months, the App was downloaded by more than 8000 people.



## CASE STUDY

# New blasting method offers customers better environmental performance



Mining operations around the world are constantly looking for ways to improve their operating efficiencies. With today's more challenging economic times, cost savings and production improvements are a major focus for our explosives customers.

This year, our Explosives technology team developed and released a solution to optimise blast performance. Differential Energy™ is a proprietary method for precisely targeting explosive energy to match rock properties, reducing the amount of explosives loaded in the top portion of the

blast hole. This reduces vertical movement and air overpressure or noise from the blast event.

Differential Energy is a system that combines Dyno Nobel's TITAN® bulk explosives with its specifically designed delivery trucks and proprietary AGS (automatic gassing system). This enables customers to precisely and accurately vary the characteristics of the bulk explosive in the borehole to create the optimal blasting outcome and reduce undesired effects.

Geological conditions can vary significantly within the mining landscape. Hard rock bands and seams sometimes end up at various places

throughout the borehole, causing unwanted effects to the blasting process, such as fly-rock and poor fragmentation.

Dave Hunsaker, DNNA's Bulk Products and Delivery System Product Manager, explains: "Generally, the explosive energy profile in the borehole is limited by product type and physics. Energy distribution varies slightly, or not at all, using traditional methods and products."

The ability to precisely control the explosive energy profile gives a blaster the tools to significantly reduce operational inefficiencies related to poor fragmentation and fly-rock and increase ore production.

Along with better fragmentation and reductions in fly-rock, trials conducted at a customer site this year demonstrated that the new technology resulted in greater high-wall stability and safety, smoother floors, reduced groundwater contamination, increased water resistance and minimised post-blast NO<sub>x</sub> fumes generation.

Differential Energy™ provides many workplace safety and environmental benefits, such as improved stability of mine walls and safety, reduced groundwater contamination, reduced potential for fly-rock and minimised post-blast NO<sub>x</sub> fumes generation.

As part of this, our Supply Chain Risk Analysis program utilises BEx methodology to systematically identify product supply exposure in relation to a customer's operations and determine the next best alternative supply point or the risk mitigation measures that might need to be taken.

In North America this contingency planning takes advantage of the fact that we have the largest investment in manufacturing assets of any explosives supplier in the region, with multiple plants providing important flexibility and supply options.

Globally, we include a business continuity process as part of our Risk Management framework. This process includes planning for continuity of supply of critical raw materials.

Additionally, our supply chain strategy is reviewed and updated annually. This includes the identification, analysis and management of suppliers providing goods and services which are critical to our manufacturing operations.

## Site and distribution security and transportation

Many of the explosive products we manufacture are classified as security-sensitive and/or dangerous goods and as such, their storage, distribution and sale is regulated by Federal, State and sometimes local governments in North America, Europe, Asia Pacific and Australia. We meet our regulatory compliance/licencing obligations surrounding those products, with internal procedures and training for relevant employees.

We keep abreast of regulatory developments in this area and are committed to working with government and key stakeholders to ensure ongoing security.

## Support and educating customers

We provide support to our customers to assist them in choosing the right product and blast plan to minimise environmental impacts.

In addition to providing information about the technical aspects of the use of our explosives products, our technical support teams and our Dyno Consult business provide documentation and advice to our customers about:

- Product content, particularly with regard to substances that might produce an environmental or social impact.
- Safe use, storage and handling of the product.
- Disposal of the product as required by applicable law.

This advice is supplied on our websites, on the product label, in the Safety Data Sheet (SD Sheets) or directly to the customer via training sessions. In Australia, our SD Sheets comply with the requirements of Safe Work Australia. SD Sheets for products that are supplied in the United States comply with the Mine Safety and Health Administration (MSHA) for products destined for the mining industry as well as the requirements of the Globally Harmonized System of Classification and Labelling of Chemicals.

In North America, our Dyno Nobel business operates a 'Quarry Academy', a training centre for stone quarry operators. The curriculum includes drilling, loading, crushing and screening training, as well as lectures from industry experts in subjects such as the benefits of the chemical crushing of stone, versus traditional mechanical crushing.



These benefits include lower costs, less electricity usage and improved environmental and social impacts e.g. lower dust production. This year 85 operators attended the Academy.

In Australia, our teams run 'NO<sub>x</sub> forums' for customers on-site to educate them about the factors associated with NO<sub>x</sub> production and how to minimise it. Additionally, courses in optimum blasting techniques for both surface mining and another for underground mining are offered to customers.

## Product end of life

Product that doesn't meet final specification or is returned by customers is used by our Research and Development team for product development purposes or is incorporated back into our emulsion manufacturing.

## Initiatives to reduce packaging waste

Several of our Explosives sites have enjoyed considerable success in reducing their package waste. This is discussed further in the case study in the 'Environment' section of this Report.

# People & Culture

*Building a world class approach*



## Overview

*Attracting, developing and maintaining a highly talented and diverse workforce is key to living our Value of "Value People – Respect, Recognise & Reward" and vital to achieving our business objectives.*

## 2013 highlights

Our priority this year has been to improve our Human Capital management through the BEx methodology. We have done this by:

- Developing a strategy that incorporates the key actions required to attract and develop talent, and progress up the BEx Human Capital maturity scale
- Making it easier for our people to perform by standardising our HR policies and underlying procedures, and applying them consistently across the Group
- Extending our learning and development curriculum to include a number of short courses focussed on soft skill development and BEx capability building

Also within this reporting period:

- We implemented our Indigenous Engagement Strategy and achieved our 2013 target of 6 percent Indigenous representation within our Pilbara, West Australia operations
- We were recognised as a Top Graduate Employer by the Australian Association of Graduate Employers
- Our Australian explosives business won the Chairman's Award from the National Industry Skills Council (SkillsDMC) for its One Operator Training program. See the case study on Page 38 for details

## Key challenges and opportunities

Our key workforce challenges and opportunities include:

- Ensuring that we have skilled, diverse and ready talent to meet current and future demands
- Being an inclusive and accessible organisation
- Improving our succession planning process to ensure that we have a pipeline of employees with the right skills and experience to safeguard critical roles; both deep technical expertise and general leadership capability

## Strategic priorities

Using BEx as an enabler, we're working to:

- Sustainably embed human resources policies and procedures developed throughout 2012/13, using the plan > do > check > act model of implementation.
- Implement and communicate Human Capital metrics across the Group so we can see where to make focused improvements
- Enhance our talent management approach
- Deepen our continuous improvement culture and capability



Representatives from our Manufacturing Graduate Program undertake a Take5! before setting foot on plant at Gibson Island, Queensland, Australia.



## Our approach

Our approach is to align our Human Capital strategy to drive our cultural, social and business goals, using the BEx methodology. The initiatives and case studies described throughout this section show our approach in action.

We are committed to engaging and involving our people, from the 'shop-floor' to the executive, to improve their skills and achieve continuous improvement in all facets of our operations. We believe that taking an integrated approach will lead to constructive and sustainable outcomes for our people and our stakeholders.

## Managing our talent

We recognise the importance of having a talented and committed workforce at all levels.

Succession planning is conducted annually, identifying short, medium and long term candidates for key roles.

During this process, functional heads and leaders within each of our businesses identify employees with high potential. The identification process uses both a set of criteria and data from the annual performance management process. Action plans are implemented, with the aim of developing those capabilities required for future advancement.

Targeted training programs are also in place to nurture the next generation of talent. This year, our Australian Manufacturing Graduate Program was recognised by the Australian Association of Graduate Employers as one of the top 100 programs in Australia.

During the two-year program, graduates receive hands-on engineering experience through a blend of site-based rotations and a formal development plan. Graduates focus on their technical, professional and personal development and are supported by an experienced manager for the duration of the program. The learning structure is tailored to their discipline and individual needs. In addition, graduates are mentored by leaders in the company.

To continually improve the program, this year an 'onboarding' week was introduced. 14 first year graduates and five second year

graduates undertook a total of 463 hours of training as part of their induction, during which they learned about the business, our culture and Values, safety and BEx. The learning and development component of the graduate program was also introduced, with sessions on expectations, performance management and development, communication and self-awareness.

Five female graduates took part in this year's graduate program, representing over a third of the total graduate intake. It has also been pleasing to see that recruitment for the 2014 program has seen a 52 percent increase in female graduate applications.

In our US business, the explosives manufacturing plant in Cheyenne, Wyoming, US formed a partnership with Laramie County Community College. The partnership will assist the college in their efforts to secure Workforce Development Training Funds to support individuals enrolling in a Process Technology training program at the college. Recognising a need for well-trained individuals in all areas of our industry, most particularly with strong workplace safety knowledge, the team at Cheyenne has guaranteed interviews to program graduates and is assisting the College in the development of the course curriculum.

We also offer scholarships and support to engineering students in several universities in the United States, and at James Cook University and the University of Queensland in Australia. Our Asia Pacific Explosives business is also associated with several industry and related organisations, including the National Industry Skills Council, the Australian Apprenticeship Centre, the Southern Queensland Institute of TAFE, the Queensland Resource Council, Australian Mines and Metals Association and Reconciliation Australia.

## Valuing employee performance

Our performance management framework aims for consistency, fairness, equity and reward for performance.

It is a process for establishing a shared understanding of 'what' is to be achieved, and 'how' it is to be achieved. It is a collaborative process and requires both manager and employee to participate equally. Online tools provide a consistent process and central repository for performance management information. Every employee who is not part of a collective bargaining agreement that precludes them is required to set goals for their performance and development each year, and have a formal performance review at six monthly intervals. In 2012/13, 42 percent of employees across the Group participated in the performance review process.

Within our Turkish operations all leaders, together with all employees based in our Ankara headquarters participated in the performance process in 2012/13. Next year the process will be rolled-out to the remainder of the business as part of its HR Integration activities.

In order to ensure individual goals and performance were better linked to the key objectives and performance of the business, our Short Term Incentive (STI) plan was revised this year to:

- Specifically include Safety goals in support of our Zero Harm strategy; and
- More explicitly link STI payments to the performance of the business.

Employees are assessed against both their individual goals and either our Values or leadership competencies. The leadership competencies are a set of expected capabilities which our leaders are measured against for development and performance as part of the performance management cycle. They apply to all employees who are people leaders or who hold influential cross-matrix roles, and they incorporate the leadership skills required to deliver BEx, such as holding people accountable, driving improvement and the capacity to influence and develop others.

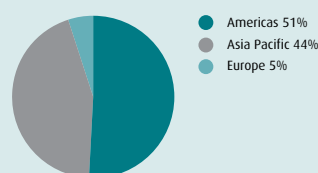
% of employees receiving regular performance and career development reviews

Total	42.5%
% of males	38.6%
% of females	64.2%

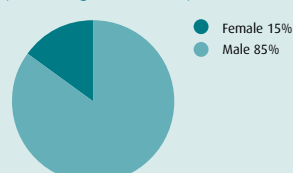
### Our workforce as at 30 September 2013

We have 5,247 employees (excluding contractors) Group-wide

Total workforce by geographic location (excluding contractors)



Total workforce by gender (excluding contractors)



% Females at 30 September 2013

	% of women
Board level	14.3%
Executive	12.5%
Management	13.3%
Global	15.0%

Learning and development

We aim to develop leaders with the flexible skills and relevant competencies needed to rapidly adapt to changing financial and market situations and to provide our leaders with the skills and experience needed to run a large, multi-geography, multi-cultural organisation.

In 2012/13 we focussed on:

- Developing leaders with the appropriate skills and competencies to deliver continuous improvement.
- Fostering an environment where employees have the flexibility, tools and freedom to realise our business objectives through continuous learning.
- Implementation of our new learning curriculum, focussed on building BEx capability across our entire Value Chain, including technical LEAN capabilities, communications, problem solving, leadership and coaching.

The learning and development approach is a multi-faceted cluster of development options focused on enhancing our people at key transition points as well as providing just-in-time learning modules. The curriculum is updated each year, as a result of learning analysis, incorporating feedback from succession planning, employee development plans, performance management processes and BEx learning requirements.

Fostering a learning culture is critical to our ongoing success and this year the curriculum was expanded to include a number of short courses focussed on the development of soft skills, with the aim of creating a greater depth of leadership capability.



These courses, known as our ‘Leadership Cogs’ series, includes short modules (3–4 hours) on key topics identified through individual development plans:

- Coaching
- Difficult Conversations
- Leading Change
- Communicating with Clarity
- Recruit for fit
- Understand behavioural styles
- Leadership Transition
- Mentoring Guidelines
- Closing the Performance Gap

During 2012/13 we commenced roll-out of our Learning Management System, ‘My Learning’, across our Australian sites. The system provides a central, global database of the

training requirements for each role within our business and will allow us to better manage our regulatory requirements and to identify and manage capability gaps. The system has also enabled employees to determine what capabilities and training they require to be considered for other roles in the Group.

Currently available to Australian employees, the system will be extended to other jurisdictions by 2014/15 and provides them with the ability to:

- List learning activities that they currently have planned or are in progress, or have been previously completed.
- List their current qualifications, skills, competencies, licences, inductions and certificates.
- Compare their current qualifications against those identified as a requirement for their position, and future positions they aspire to hold.
- Request participation or create a pre-booking on a particular learning activity, including classroom and web-based (e-Content) training offered via the IPL Group Course Catalogue, empowering employees to address gaps in their skill set.

Metrics measuring the success of our Learning and Development Programs are compiled every six months and presented to the Managing Director & CEO. During the past 12 months, the equivalent of 4129 days of BEx, soft-skills and leadership training was undertaken across the US, Turkey and Australia. While training takes place across the Group, training records from other regions are not consolidated on a global basis. Of those employees who undertook training in the US, Turkey and Australia this year, the average hours of training undertaken were:

	Hours
Male participants at the Executive Level	50.4
Female participants at the Executive level	45.6
Male participants across all other levels	6.4
Female participants across all other levels	6.8

CASE STUDY

DNAP One Operator Training Program



In May this year Dyno Nobel Asia Pacific opened the Training Centre of Excellence at Pinkenba, Queensland, Australia. The training centre has been launched to support the delivery of the One Operator Program, providing core training to all new DNAP operators and underpinning all operator disciplines including plant, Mobile Processing Unit, magazine handlers, blast and underground.

The program follows a well-planned and tested process covering training, assessment and coaching resulting in an Accredited Certificate III for all Operators, recognised through DNAP’s partnership with TAFE.

The One Operator Program is scheduled to begin every month from the new Pinkenba facility, with three weeks of training followed by a period

of practical application and competency-based assessments. The program takes approximately 390 hours of training per person to complete. All new operators now begin their DNAP career at the facility.

This training is being commended by our mining customers and provides employees with clear learning pathways. The centre enables us to simulate real on-site conditions and sets the standard for new starters coming in to our business.

Within the reporting period, 24,180 hours of training were completed by 260 trainees from within our Australian explosives business. It is expected that the majority of DNAP’s existing operators will be fully certified by December 2014.



## Engaging our employees

With the help of the Corporate Leadership Council we undertake benchmarking of employee turnover rates for the Global Manufacturing and Oil & Gas/Mining/Energy industries, as well as by Executive job level and all employees. We use voluntary turnover rates as a key indicator of employee engagement and, along with exit interview data, use this information to inform our talent and engagement practices. Turnover rates within the company are tallied at a Group level, with the exception of our Mexico and Papua New Guinea operations. Statistics from these regions have not been included when determining the average turnover rates provided below.

Total number and rate of new employee hires for the full year	<b>15.99%</b>
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Employee voluntary turnover rates for the full year (%)

### By age group:

All employees Under 30	<b>16.04%</b>
All employees 30-50	<b>8.53%</b>
All employees 50+	<b>7.52%</b>

### By gender:

Male	<b>9.18%</b>
Female	<b>10.35%</b>

### By region:

Americas (incl US, Canada, and Chile)	<b>8.87%</b>
Asia Pacific (incl Australia and Indonesia)	<b>9.03%</b>
Europe (incl Turkey)	<b>16.30%</b>

Employee engagement is fostered through activities such as our Values Awards program. The program recognises employees for demonstrating positive cultural behaviours, helps to embed our Values across the organisation and highlights the importance of working in accordance with them. This year 228 Values Awards were awarded to employees in Australia, Papua New Guinea, Indonesia,

Turkey, Canada and the United States who were nominated by their peers for having 'lived the Values'. Of the 228 awardees, a quarterly Values Champion was also awarded by a committee of employees from across the Group. These Champions were the awardees that the committee believed to have best exemplified our Values in their day-to-day work.

## Workforce Planning

Skills shortages, particularly in remote regions, have eased this year. This is due to mining companies moving from construction to production phase, releasing labour onto the market. However, a range of strategies are still being implemented to ensure we attract the right talent we need to be a high performing organisation, including:

- Providing market competitive remuneration, alongside merit-based performance management.
- Building our learning and development capabilities to up-skill our employees.
- Implementing our Indigenous Employment Program in Australia
- Implementing proven local hiring strategies in Australia, Papua New Guinea, Indonesia and the United States

An example of the workforce planning practices taking place across the Group is the approach taken by our Asia Pacific explosives business. Workforce Planning was a BEx Human Capital initiative introduced within the business in 2012 to move from reactive to planned control of employee turnover numbers.

This process has contributed to a significant reduction in employee turnover in 2012/13. From its peak in 2011, employee turnover has outperformed the business' target of 15 percent since October 2012, with a low of 13 percent recorded in January 2013. This has been achieved by:

- Introducing regular, cross-functional meetings including key stakeholders from across the business unit, providing a forum for open communication and increasing stakeholder understanding of workforce trends.
- Developing a rolling six-month labour forecast horizon, which supports a proactive approach to recruitment and employee redeployment.
- Increasing focus on key workforce trends such as Diversity and Retention strategies
- Tailoring training of existing staff to meet customer needs for upcoming projects

The business will extend on these practices in 2014.

## Diversity

At IPL, we are committed to being an inclusive and accessible organisation through the development of a culture that embraces diversity.

Our employees range in age and gender and come from many different cultures, traditions and lifestyles. It is the diversity of our people that makes our company a great place to work. IPL benefits from this variety of perspectives and ideas, experience and capabilities, all of which lead to a greater opportunity for innovation and a better workplace.

To assist in building our diverse community, we have established a Diversity Council this year, which reports to the Managing Director & CEO, James Fazzino.

The Council provides leadership and support in implementing the company's Diversity Policy and Strategy. Our Board of Directors maintains oversight of the Diversity Policy and the implementation of the Diversity Strategy.





## PEOPLE & CULTURE

The Diversity Strategy recognises that each business unit is at a different stage of maturity in its approach to diversity and faces different challenges depending on where employees are located around the world. As a result, we have developed a phased approach to implementing the Diversity Strategy, starting with Australia, and followed by the US and Canada. We will learn about and understand the challenges through the phases and progress to a Group-wide approach by 2015.

This year each of the Australian business units and functions have developed and implemented diversity plans based on our Diversity Principles of:

- Respecting our differences
- Shaping our future organisation
- Building a flexible organisation

Respecting our differences is critical to ensuring that our work places will be free of discrimination and harassment and inclusive of all people, regardless of differences.

Shaping our future organisation means IPL will develop a diverse workforce, creating business sustainability and strength.

We will also offer workplace flexibility by providing opportunities for working arrangements that accommodate the needs of the Company while balancing the diverse needs of its people at different stages in their careers and lives.

In order to progress our Diversity Strategy, this year the following initiatives were undertaken:

- A Flexible Workplace Policy was developed and implemented.
- A company confidential gender pay diagnostic was undertaken by a third party provider which determined that gender bias was not a contributing factor to pay differentials across the Group. The relative consistency of pay across genders is demonstrated in the table below.
- Our recruitment and selection process was redesigned to support our Diversity agenda, including providing tailored recruitment processes to attract Indigenous candidates.
- We held 25 Cultural Capability training days throughout the year to raise awareness of indigenous culture.
- We ran Anti-Harassment and Discrimination training and are in the process of re-developing our Anti-Harassment and Discrimination Policy.
- We launched our Australian parental support program with partner 'Expect a Star'.
- We hosted a National Association of Women in Operations (NAWO) conference at our site at Gibson Island, Queensland, Australia this year.

During 2012/13 the proportion of women employed across the Group increased from 13.6 percent (2011/12) to 15.0 percent. This increase is partly due to increased female participation in management roles, with the percentage of women represented in this category growing from 11.8 percent in 2011/12 to 12.9 percent in 2012/13.

### Gender Diversity at IPL

Organisational tier	% of employees
MALE All	84.98%
FEMALE All	15.02%
MALE Board level	85.71%
FEMALE Board level	14.29%
MALE Executive team level	87.50%
FEMALE Executive Team level	12.50%
MALE Management level	86.97%
FEMALE Management level	13.33%
MALE all other levels	84.90%
FEMALE all other levels	15.10%

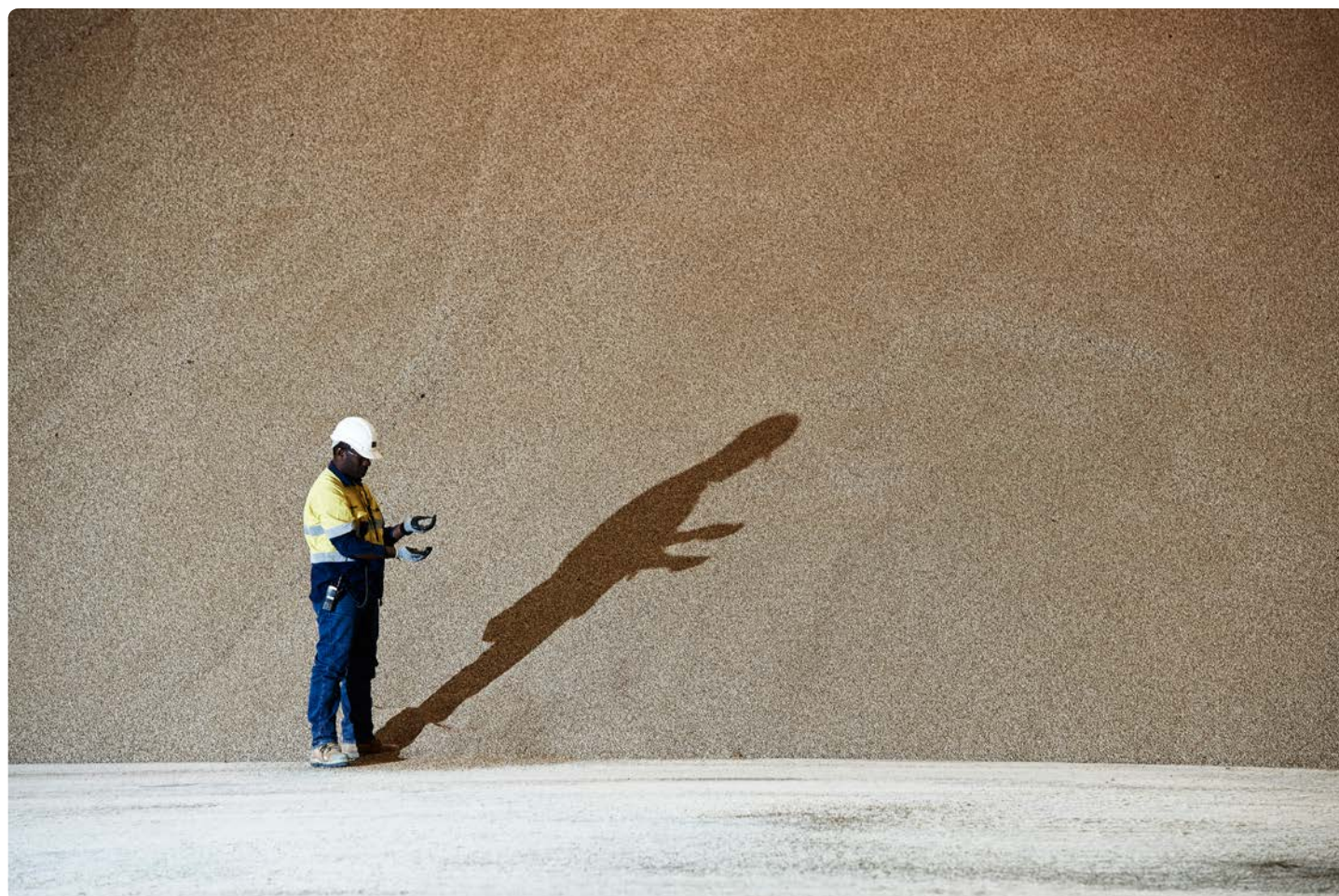
### Age Diversity at IPL

All employees Under 30	17.23%
All employees 30-50	53.72%
All employees 50+	29.05%

### Salary Equity at IPL

	Male Ratio	Female Ratio
Executive Level	1	1
Management Level	0.96	1
All other levels	1	0.92

Further details on our Diversity Policy, Strategy and progress are available in our 2013 Annual Report and at [www.incitecpivot.com.au](http://www.incitecpivot.com.au).







As part of IPL's Indigenous Employment Program, The Hood, an Indigenous youth program unique to the Pilbara and Western Australia, has been a successful recipient of an IPL Community Fund grant for A\$10,000. Through the use of hip-hop dance, The Hood inspires and engages young people.

## IPL's Australian Indigenous Employment Program

In line with our commitment to Value People – Respect, Recognise & Reward, IPL's Indigenous Employment Program aims to increase the number of opportunities for Indigenous Australians by providing access to employment, education and training as well as focusing on developing cultural understanding and respect within its workforce. The program is also a key component of IPL's approach to Diversity.

With more than 15 projects operating throughout rural Australia, IPL's Indigenous Employment Program is already helping our business to develop stronger relationships with the community.

We have committed to meet indigenous employment targets of 20 Indigenous employees and together with BHP Billiton Iron Ore, one of our largest Australian customers, a six percent indigenous employment rate in our Pilbara operations, which we have achieved this year.

We employed 11 indigenous candidates within our pilot sites of Mt Isa and the Pilbara since January 2013.

Initiatives undertaken as part of our Indigenous Employment Strategy include:

### Welcome to Country Ceremonies

Traditional Aboriginal Welcome to Country ceremonies were held recently at our Gibson Island, Queensland and Perth, Western Australia offices. The Welcome to Country ceremony is the Aboriginal way of welcoming others to their country and holds special cultural significance.

### Cultural Capability Training

This year, IPL engaged the Indigenous Community and Traditional Owners on the development and implementation of a Cultural Capability Program for the leaders, management and staff of our organisation. The program encourages participants to recognise that different cultures have different ways of valuing, seeing, doing and believing, and that to work successfully with people from other cultures, we need to know which characteristics are critical.

## Indigenous Recruitment and Retention

Traditional HR systems and processes can present barriers for Indigenous people seeking to enter the mainstream workforce. We are working on improving Indigenous employment outcomes and have developed a range of systems to assist Indigenous people overcome these barriers. These include:

- Using local Indigenous networks to identify potential Indigenous candidates
- Focusing more on face-to-face communications
- Ensuring recruitment turnaround times are culturally appropriate
- Developing a work readiness program

Indigenous employees also face particular challenges in balancing work, cultural and family commitments and making the transition to a new organisational and cultural environment. For employees of fly-in, fly-out operations, an added pressure is the need to spend extended periods away from home. Strategies for increasing retention include:

- Provision of cultural awareness training for both Indigenous and non-Indigenous employees;
- Provision of ongoing mentoring and support via our 'buddy system' implemented within our Mt Isa and Pilbara Operations this year;
- Provision of career development opportunities;
- Provision of family support; and
- Addressing racism in the workforce.

Further to the work undertaken this year to implement our Indigenous Employment Strategy, an Australian Indigenous Relations Policy was developed for implementation in 2014.

VP Australian Fertiliser Manufacturing Warren Waples, DNAP President Steve Dawson and Traditional Owner Maroochy Baramah flank the Welcome to Country artwork created by Indigenous artist, Charlie Chambers (seated).



# About the data

## Scope

This Report covers wholly owned subsidiaries of Incitec Pivot Limited, ACN 42 004 080 264. The Company is a public company, trading on the Australian Securities Exchange as IPL.

In accordance with Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, this Report covers all entities that generate significant sustainability impacts (actual and potential) and over which we exercise control or significant influence with regard to financial and operating policies and practices.

The statistics in this Report are for global sites wholly owned by IPL during that period. Joint ventures are not covered in this Report, unless indicated, nor are the activities of suppliers, customers or outsourced operations.

The Company participates in many joint ventures with varying levels of ownership interest. A list is provided in the 2013 Annual Report.

All financial figures in the Report are in Australian dollars, unless otherwise indicated.

The financial year ending 30 September 2013 is indicated as '2012/13' in this Report.

## Data measurement and calculations

### Financial data

Financial figures are derived from our audited accounts, which are prepared according to the International Financial Reporting Standards (IFRS).

### Environmental data

Scope 1 and 2 greenhouse gas emissions are calculated based on the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition).

Scope 1 and 2 emissions factors are sourced as follows:

### Australia

- National Greenhouse and Energy Reporting (Measurement) Determination 2008
- National Greenhouse Accounts (NGA) Factors (2012).

### Americas

- US Electricity: eGRID2007 Version 1.1 Year 2005 GHG Annual Output Emission Rates
- US Fuels: IPCC, Guidelines for National Greenhouse Gas Inventories (2006)
- Canada Fuels: Default CO<sub>2</sub> Emission Factors: Environment Canada, National Inventory Report, 1990–2007: Greenhouse Gas Sources and Sinks in Canada (2009), Annex 12: Emission Factors, Table A12-5 (1998–2007 data); Default Heat Content: Statistics Canada, Report on Energy Supply-demand in Canada, 2007 (2009)
- Canada Electricity: Greenhouse Gas Division, Environment Canada (2006 data)
- Mexico Electricity: Emission rates include emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. Factors are a national average of all the power plants operating and delivering electricity to the National Electric System and do not include transmission and distribution losses. Source: Asociación de Técnicos y Profesionistas en Aplicación Energética (ATPAE), 2003, Metodologías para calcular el Coeficiente de Emisión Adecuado para Determinar las Reducciones de GEI Atribuibles a Proyectos de EE/ER – Justificación para la selección de la Metodología, versión final 4.1 (junio de 2003), proyecto auspiciado por la Agencia Internacional de Estados Unidos para el Desarrollo Internacional, México, D.F., México.

### Europe

- 2011 Guidelines to DEFRA/DECC's GHG Conversion Factors for Company Reporting – Produced by AEA for the Department of Energy and Climate Change (DECC) and the Department for Environment, Food and Rural Affairs (DEFRA) in the UK. Version: 1.2

## Changes during the reporting period

There were no changes to the organisational structure or size during the reporting period. There were no changes to the organisational structure or size during the 2012/13 reporting period.

## Restatements

We have restated our 2011/12 water use from 15,999 ML to 43,359 ML to include non-contact cooling water used at our St Helens, Oregon site. Refer to page 24 for more information.

We have restated our 2011 calendar year NO<sub>x</sub> emissions from 1,172 to 2,724 tonnes due to increased rigour in our data collection processes. Refer to page 23 for more information.

We have restated our 2011/12 losses of containment from 14 to 72 due to increased rigour in our data collection processes. Refer to page 27 for more information.

Data prior to 2011/12 has not been further analysed.

Our previous sustainability reports are available for download from [www.incitecpivot.com.au](http://www.incitecpivot.com.au).

## Assurance and data integrity

We aim to ensure that the information we publish is accurate, complete and material and therefore contributes to building trust and credibility with stakeholders. To achieve this we have improved our internal processes for verifying non-financial management information and for reviewing and approving the content of this Report.

We are focusing on increasing external assurance of our non-financial data over time, taking a materiality based approach. This year, an external review of our safety incident data integrity was undertaken and process improvement actions were undertaken.

Our Australian greenhouse gas emissions, energy consumption and production figures for the period 1 July 2012 to 30 June 2013 were assured by a third party.

Our community investments are verified by the London Benchmarking Group.

## Glossary

### BEx

BEx is IPL's system for continuously improving the way we work and is a long term cultural transformation across the entire organisation. BEx is further described on page 6.

### CO<sub>2</sub> equivalent (CO<sub>2</sub>e)

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.

### Group

This is the term for the company, collectively consisting of several business units and its wholly owned subsidiaries.

### Plant

The equipment used to manufacture a specific product e.g. ammonium nitrate. There may be several plants on a single IPL site.

### Prill

Small aggregates of solid ammonium nitrate formed by allowing drops of liquid AN to congeal or freeze in mid-air after being dripped from the top of a tall prilling tower.

### Scope 1 emissions

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

### Scope 2 emissions

Scope 2 accounts for GHG emissions 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 electricity is generated.

### Scope 3 emissions

Scope 3 is a reporting category that allows for the treatment of all other indirect emissions. Scope 3 emissions are a consequence of the activities of the Group, but occur from sources not owned or controlled by the Group. IPL does not currently collect data on Scope 3 emissions.

### Site

A single geographic location where IPL operations take place.

### Supply Chain

Our supply chain is 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.

### 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 chain (described above) is a subset of this.



# Global Reporting Initiative (GRI) Index

Our 2013 Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, Version 3.1. The Report is self-declared as a GRI C application level.

The following table details the GRI Indicators covered by this Report. Read more about GRI at [www.globalreporting.org](http://www.globalreporting.org).

## Key

- Full coverage
- ⊙ Partial coverage
- Not covered

GRI Item	Description	Coverage	Response or reference
1.1	Statement from the most senior decision-maker of the organisation	●	Page 5
2.1 – 2.8	Organisational profile	●	Pages 2–3
2.9	Significant changes during the reporting period	●	Page 42
2.10	Awards received	●	Pages 7, 36
3.1 – 3.4	Report parameters	●	Page 3
3.5	Process for defining report content	●	Page 7
3.6	Boundary of the report	●	Page 42
3.7 – 3.8	Report parameters (continued)	●	Page 42
3.10 – 3.11	Restatements and significant changes from previous reporting periods	●	Page 42
3.12	Table identifying the location of the Standard Disclosures in the report	●	This table
4.1	Governance structure of the organisation	●	Page 8 & page VI of the Annual Report
4.2	Is the Chair of the highest governance body also an executive officer?	●	No
4.3	Independent and/or non-executive members of the board	●	Annual Report, page VI
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	●	See footnote 1
4.7	Process for determining the composition, qualifications and expertise of the highest governance body, including considerations of gender and diversity	●	Annual Report, page 29
4.13	Memberships in associations	●	On website
4.14	List of stakeholder groups engaged by the organisation	●	Page 7
4.15	Basis for identification and selection of stakeholders	●	Page 7
STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMAs)			
DMA EC	Disclosure on Management Approach EC	●	Annual Report
DMA EN	Disclosure on Management Approach EN	●	Pages 21, 29, 33
DMA LA	Disclosure on Management Approach LA	●	Pages 37–41, 11
DMA HR	Disclosure on Management Approach HR	○	–
DMA SO	Disclosure on Management Approach SO	●	Pages 15–19, 9
DMA PR	Disclosure on Management Approach PR	⊙	Pages 29, 33
STANDARD DISCLOSURES PART III: Performance Indicators			
Economic			
EC1	Direct economic value generated and distributed	●	Page 4
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	●	CDP submission on website
Environmental			
EN03	Direct energy consumption by primary energy source	⊙	Page 23
EN04	Indirect energy consumption by primary source	●	Page 23
EN08	Total water withdrawn by source	●	Page 24
EN10	Percentage and total volume of water recycled and reused	●	Page 24
EN16	Total direct and indirect greenhouse gas emissions by weight	●	Page 23
EN18	Initiatives to reduce GHG emissions and reductions achieved	⊙	Page 23
EN20	NO <sub>x</sub> , SO <sub>x</sub> and other significant air emissions by type and weight	●	Page 23
EN21	Total water discharge by quality and destination	⊙	Page 24
EN22	Total weight of waste by type and disposal method	●	Page 24
EN23	Total number and volume of significant spills	⊙	Pages 26–27
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	●	Pages 30–35
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	●	Aggregated total of \$5,200
Social: Labour Practices and Decent Work Standards			
LA1	Total workforce by employment type, employment contract, and region, broken down by gender	⊙	Page 37
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region	⊙	Page 39
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region	⊙	Page 13
LA8	Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	●	Page 13
LA10	Average hours of training per year per employee by gender, and by employee category	●	Page 38
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	●	Page 38
LA12	Percentage of employees receiving regular performance and career development	●	Page 37
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	⊙	Page 4
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	⊙	Pages 2–3, 40
Social: Society			
SO1	Percentage of operations with implemented community impact, development and engagement programs	●	Page 15–17
SO5	Public policy positions and participation in public policy development and lobbying	⊙	Page 29
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	●	Page 15
Social: Product Responsibility			
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	●	Pages 22, 25, 32, 35. 100% of products are assessed
PR3	Product labelling required by procedures and % of products complying with requirements.	●	Pages 32, 35. 100% of products comply

1 Shareholders can communicate with the Board at our Annual General Meeting or by writing, care of the Company Secretary at the Registered Office, Incitec Pivot Limited, GPO Box 1322, Melbourne Victoria 3001.  
Employees can communicate via employee engagement surveys or via their manager. Employees are able to report suspected misconduct via a Whistleblower hotline.  
website = [www.incitecpivot.com.au](http://www.incitecpivot.com.au)

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