



Sustainability Report 2011

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Our Approach

2011

CEO Message

Welcome to the 2011 Sustainability Report. Now in the eighth year of reporting, I am proud of our history of commitment to sustainable products and services, transparent disclosure of performance and continuous improvement. We remain committed to our goals of achieving no injuries to anyone, ever, and to value people and the environment.

Orica strives to operate its assets to the highest possible standards and in accordance with legal requirements. Regrettably, in August an incident occurred at the ammonia plant at Kooragang Island, Australia, which resulted in an amount of sodium chromate containing hexavalent chromium being released, traces of which were found in northern parts of the adjacent Stockton neighbourhood. Independent toxicology studies concluded that there was no threat to human health. The Company is working with authorities and the community to rebuild trust around its Kooragang Island operations and to enhance its communications with stakeholders at other major sites.

In 2011, Orica achieved its lowest ever All Worker Recordable Case Rate, at 0.47 per 200,000 hours worked. Sadly, there was one fatality and another employee was seriously injured in a road traffic accident whilst travelling to a customer site for a product trial, at the Minova business in Ningxia, China.

With the completion of our Challenge 2010 program last year, we have introduced new, challenging targets associated with a revised sustainability strategy approved by the Orica Limited Board late last year. This sustainability framework will achieve better alignment with customers and stakeholders, enhance employee engagement and improve sustainability performance. At Orica, sustainability means the capacity to deliver acceptable and continually improving outcomes in the areas of Governance; Safety, Health & Environment; Product Stewardship; People & Community; and Engagement & Communication.

One area of focus is building a diverse workforce; Orica's Diversity Strategy is not only about improving gender and international diversity but also creating an inclusive culture and leadership capability to lead diverse teams. I have been pleased to see the percentage of female executives increase to 12 percent this year, international executives increase to 57 percent and women in our graduate recruitment program increase to 31 percent.

Orica delivers clever solutions to help our customers harness natural resources to improve people's lives. In 2011 we continued to develop products and services that offer clear sustainability benefits such as improved resource efficiency, lower toxicity and greater customer safety. For example we have developed a process to use recycled oil in emulsion explosives, assisting customers to achieve their sustainability objectives. Our Watercare safe drinking products were recognized by the American Water Works Association and a new, urea-based diesel exhaust system additive reduces nitrogen oxide emissions in heavy vehicles.

Orica is included in the Dow Jones Sustainability Index (Chemicals sector) and the FTSE4Good Index in 2011. Orica's comprehensive disclosure of greenhouse gas emissions under the Carbon Disclosure Project is built on a focus on improving its performance in this area over more than two decades.

While much of the sustainability performance in 2011 has been pleasing, we are not without challenges. In addition to the incident at Kooragang Island and the traffic accident fatality mentioned above, seven people lost their lives in distribution incidents associated with Orica products. We will learn from the incidents, and continuously improve the management of these risks.

Orica's core strategy is to be the global leader in the provision of high service, critical consumables to the mining and infrastructure markets. This strategy has delivered resilient earnings, and part of our product and services offering addresses key sustainability challenges for our customers such as declining ore grades, increasing strip ratios and rapidly lifting mine safety standards.

Through the development of market leading technologies, Orica has helped improve the efficiency, productivity and safety of our customers' operations. I am inspired by the commitment of our employees to deliver sustainable, quality results and am confident that we will continue to be a leading innovator in this area in the coming years. I thank all of our employees for their commitment to our sustainability programs in 2011 and hope you enjoy reading of their many and varied successes in this Report. I welcome your feedback.

Graeme Liebelt
Managing Director and CEO

Our Sustainability Strategy

At Orica, sustainability means the capacity to deliver value to our stakeholders in the following key areas:



Figure 1. Orica's sustainability framework.

Governance - Having sound business and risk management processes that deliver solid financial returns whilst balancing social and environmental factors.

Safety, Health and Environment (SH&E) - Achieving our vision of no injuries to anyone, ever, and aspiring to do no harm to people and the environment.

Product Stewardship - Adopting life cycle thinking in the creation and delivery of our products and services and engaging with our customers to understand and respond to their evolving needs.

People & Community - Fostering a diverse, talented workforce and building strong and enduring relationships with community stakeholders.

Engagement & Communication - Engaging and communicating with our stakeholders to build the trust and support of our employees, customers, business partners, shareholders and the communities in which we operate.

Our sustainability framework is underpinned by challenging corporate targets and business-level sustainability plans. We have set corporate targets in the focus areas of SH&E and Product Stewardship; we have metrics relating to People & Community. Read more in Corporate Targets & Metrics (page 9).

Together, the sustainability framework, corporate targets and business plans aim to:

- Broaden what sustainability means at Orica;
- Better align us with our customers and enable us to meet their evolving expectations;
- Engage and motivate our employees to take action to improve sustainability performance;
- Support progress towards our no harm aspiration; and
- Reinforce our commitment to consider social, economic and environmental outcomes in all business decisions.

The Orica Board endorsed our revised strategy in 2010. Our approach aims to reflect established and respected sustainability frameworks that govern the industries we serve and our supply chains. These are:

- The International Council on Mining and Metals (ICMM) Sustainable Development Framework; and
- The Plastics and Chemicals Industry Association (PACIA) Sustainability Leadership Framework.

How We Contribute

Orica delivers clever solutions to help our customers harness natural resources to improve people's lives. Though you may not see them, our products and services are key inputs for making many useful things that you probably use every day.

Each of our businesses - Orica Mining Services, Minova and Orica Chemicals - is the leader in its chosen market. Our commitment to ongoing innovation gives Orica clear market leadership in product development and services. Through the development of market leading technologies, Orica has improved the efficiency, productivity and safety of our customers' operations.

We do all of this with an over-riding commitment to valuing people and the environment. Our commitment to employee safety, climate change action, supply chain engagement and diversity means that sustainability guides our behaviour and underpins our success.

Read more about our businesses, products, regions of operation and markets served by visiting www.orica.com. Read more about Orica's Balance Sheet on page 48 of the 2011 Annual Report by visiting <http://orica.onlinereports.info/>. Orica operates more than 250 sites worldwide.

Orica Mining Services

What We Do

Orica Mining Services is the world's largest supplier of commercial explosives, blasting systems and blast-based services to the mining, quarrying and infrastructure industries.

How We Help

- In 2011 we helped the mining industry move 910 million tonnes of valuable iron ore, copper, gold, coal, nickel and zinc;
- We maintain the integrity of open cut mine walls to keep workers safe, reduce environmental rehabilitation costs and increase production; and
- We are good neighbours, helping to minimise flyrock, dust and vibration from our customers' work sites.



Read more at the Orica Mining Services website www.oricaminingservices.com.

Minova

What We Do

Minova is a leading manufacturer and supplier of strata support systems, ventilation, water control and geotechnical solutions to underground mining, tunnelling and civil construction markets.

How We Help

- We stabilise any rock formation by supplying injection resin, bolting systems and application services to hundreds of underground mining and tunnelling activities globally;
- We supply products and services to repair sewer lines without digging up the road, keeping motorists happy; and
- Minova is "The Ground Support Company".



Read more at the Minova International website www.minovainternational.com.

Orica Chemicals

What We Do

Orica Chemicals is a leading global supplier of sodium cyanide for use in gold extraction, and Australia and New Zealand's largest supplier of chemical products to mining, water treatment and industrial markets.

How We Help

We aim to meet the world's growing need for essential chemicals and the products those chemicals make possible.

We are a key supply chain partner across many industries and geographies. For example:

- Our chlorine product is used to produce around 6,240,000 million litres of safe drinking water around the world each year; and
- Our cyanide product is used to extract precious metals, predominantly gold. In 2011 our product helped extract approximately 200 tonnes of gold.



Read more at the Bronson & Jacobs website www.bronsonandjacobs.com.au, Chemicals Latin America website www.oricachemicals.com, Mining Chemicals website www.orica-miningchemicals.com, and Watercare website www.orica-watercare.com.

Orica Corporate

What We Do

Orica Corporate operates a small number of facilities in Australia, including Orica's Groundwater Treatment Plant in New South Wales and Head Office in Victoria.

How We Help

- Our Groundwater Treatment Plant extracts and treats contaminated groundwater. In 2011, 2,150 million litres of treated groundwater was transferred to other facilities at the Botany Industrial Park where it was used in place of potable water.



Read more at www.orica.com and www.oricabotanytransformation.com.

Key Challenges

Our key sustainability challenges describe issues we face; these issues may be actual or potential, and consider both Orica's circumstances and global trends.

This year we used Orica's risk management methodology to identify and assess our material sustainability challenges. Key corporate stakeholders participated in a workshop to discuss and rank pertinent issues with due consideration the expanded scope of our sustainability framework and emerging issues.

Our key sustainability challenges are addressed under the five elements of our new sustainability framework, which include:

- Governance;
- Safety, Health & Environment (SH&E);
- Product Stewardship;
- People & Community; and
- Engagement & Communication.

Read more about our sustainability framework in Our Sustainability Strategy (page 3).

Governance

The key challenge is **maintaining investor, community and government support and a positive reputation.**

Orica's directors and management are committed to conducting the Company's business ethically and in accordance with high standards of corporate governance. The SH&E Committee of the Board approved our revised sustainability strategy and will be monitoring performance against our corporate targets.

We retained our inclusion in the Dow Jones Sustainability Index (Chemicals sector) and the FTSE4Good Index in 2011.

Read more in Governance at Orica (page 19), Stakeholder Engagement (page 11) and Participation & Commitments (page 39).

Other challenges being managed include:

- The risk of a breakdown in internal controls (leading to fraud, bribery/corruption, inefficiency, reputational risk through non compliance). Read more about our Code of Conduct and Due Diligence in Governance at Orica (page 19); and
- A lack of preparedness for the impact of natural disasters on both facilities and supply chain. Read more in Climate Change Implications (page 16).

Safety, Health & Environment (SH&E)

The key challenges being managed are the risk of:

- **A SH&E incident on an Orica site.** We continue to work tirelessly towards our SH&E Policy aspiration of no injuries to anyone, ever; and
- **Failure to meet current, or adapt to changes in, social or government expectations/regulations.** We work proactively with local communities and regulators to resolve existing legacy issues and ensure our processes reflect evolving regulations.

Orica's SH&E Standards and Model Procedures define effective systems, controls and behaviours to ensure the protection of our people, facilities and the environments in which we operate. Our Expert Panels have been established to develop the detailed requirements for the design and control of specific major hazard processes.

We also recognise that training is a key component of managing risk. Training development programs have been implemented across the business, for example senior manager and site manager competency and leadership programs, specific technical training relating to process safety and operator training (including permit to work systems).

Our challenging SH&E Policy commitments are supported and driven by our senior management team, requiring us to consider emerging expectations and regulations in the development of major projects and process changes.

Read more in SH&E Management (page 59), Process Safety (page 64) and in our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

Product Stewardship

The key challenge being managed is the risk of **an off-site SH&E incident**.

We apply rigorous processes to the selection and management of transport providers, across all modes of transport. We consider their SH&E performance, the design and maintenance of transport services and driver education. We routinely review transport routes and the location and design of storage and handling facilities. Information and guidance regarding the SH&E risks associated with our products and services is provided to customers and other relevant third parties. Across Australia and New Zealand, Orica's Emergency Response Service provides telephone advice and assistance to the public, emergency services and others on incidents involving our products.

Read more in Product Safety (page 42), Emergency Response Service (page 43) and Distribution Incidents (page 45).

Other risks being managed include:

- The need to respond to changing customer expectations for effective product stewardship and service levels. Read more in Value Chain Engagement (page 37);
- Product being obtained by third parties with criminal intent (e.g. including terrorism). Read more in Participation & Commitments (page 39); and
- Not maximising our potential to innovate and commercialise new ideas. Read more in How We Contribute (page 4).

People & Community

The key challenge is **to attract and retain quality employees and establish the required infrastructure to support growth**.

It is the calibre of our people that drives our success. They determine how well we can leverage the strong strategic position we have achieved and how we execute our growth plans. Our recruitment, professional development and talent management programs are an important part of our approach. The Orica Graduate Program provides an important talent pool for ensuring the technical, functional and leadership future of the organisation.

Read more in Our Culture (page 102), Labour Practices (page 106), Employee Engagement (page 105) and in our case study Global Graduate Program (page 123).

Other challenges being managed include:

- The need to leverage diversity, given Orica's global profile. Read more in Labour Practices (page 106); and
- Maintaining and enhancing Orica's licence to operate, recognising that this depends on support from the community, regulators and other stakeholders. Read more in Stakeholder Engagement (page 11), Community Engagement (page 111) and Community Complaints (page 113).

Engagement & Communication

The key challenge being managed is the risk of **ineffective communication with stakeholders**.

Orica aims to be open and transparent with all stakeholders regarding its sustainability aims and achievements. Our approach to stakeholder identification, planning and conducting engagements, and responding and measuring is outlined in our Group SH&E Standard GS 3 Communication and Consultation.

We engage and respond to our shareholders' sustainability queries at our half-year and end-of-year road show meetings and Annual General Meeting. Our sustainability performance is also communicated to the investment community through our inclusion in the Dow Jones Sustainability Index (Chemicals sector), FTSE4Good Index and the Carbon Disclosure Project.

Read more in Stakeholder Engagement (page 11), Employee Engagement (page 105), Community Engagement (page 111) and SH&E Management (page 59).

Corporate Targets & Metrics

Orica has set challenging corporate targets in the focus areas of SH&E and Product Stewardship which we aim to achieve by 2015. We also have specific metrics in place to measure the People & Community focus area.

Metrics	2010 Results*	2011 Results	2015 Targets
Safety			
Zero fatalities	0	1	0
Reduce All Worker Recordable Case Rate to <0.5	0.63	0.47	0.5
Reduce Severity Ratio Index by 50%	4.33	4.32	2.17
Reduce Near Miss Fatalities by 50%	118	91	59
Health			
No fatigue related accidents	9	11	0
Environment			
Reduce greenhouse gas emissions by 50% per tonne of production	0.65	0.53	0.33
Reduce water consumption by 50% per tonne of production	2.11	1.62	1.06

Metrics	2010 Results*	2011 Results	2015 Targets
Product Stewardship			
Reduce number of Category 2+ product related incidents by 50%	21	20	11
Reduce number of Category 2+ distribution incidents under our control by 50%	22	30	11

Metrics	2010 Results	2011 Results
People & Community		
Employee engagement	56%	63%
Employee enablement	Not measured	69%

* 2010 data excludes DuluxGroup.

Changes to Our Targets & Metrics

Alongside our target of zero fatalities and low All Worker Recordable Case Rate, we have introduced a Severity Ratio Index into our safety targets. This Index allows us to better understand the severity of recorded injuries. Read more in Personal Safety (page 62).

We have also introduced a new safety target for Near Miss Fatalities. It records incidents which could easily have resulted in fatalities. Read more in Learning Incidents (page 66).

In health, we have changed our targets from compliance against health assessments, hygiene tests and occupational exposure limits to fatigue related accidents. This focus reflects incidents that have occurred in the past that directly relate to fatigue management. Read more in Occupational Health (page 67).

Greenhouse gas emissions and water consumption remain two of Orica's greatest environmental challenges; hence 50 percent reductions were chosen to challenge innovation in this area. Achieving these targets will bring us much closer to our aspiration to be a carbon neutral and water neutral business. Read more in Energy & Greenhouse Gases (page 72) and Water (page 76).

We have introduced a measure for product related incidents to increase our focus on product stewardship. This target is about taking care of our product from cradle to grave - it is about our responsibility throughout the life of our products. Read more in Product Safety (page 42).

Employee engagement and enablement are measured through our Global Employee Survey. Targets have not been set in this area. Read more in Employee Engagement (page 105).

SH&E and product stewardship results from 2010 have been revised to exclude DuluxGroup data. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Stakeholder Engagement

Our revised sustainability framework identifies Engagement & Communication as a key enabler to improving our sustainability performance. We aim to effectively engage and communicate with our stakeholders to build the trust and support of our employees, customers, business partners, shareholders and the communities in which we operate. Read more about our sustainability framework in Our Sustainability Strategy (page 3).

It is important to us that we know who our stakeholders are, understand their concerns and respond to them in an appropriate manner. Our approach to stakeholder identification, planning and conducting engagements and responding and measuring is outlined in our Group Safety, Health and Environment (SH&E) Standard GS 3 Communication and Consultation and our SH&E Policy. Read more in SH&E Standards by visiting http://www.orica.com/sustainability/files/2011SHE/Orica_SH&E_Standards.pdf and read our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf. There were no material changes in the scope of our stakeholder engagement approach in 2011.

We identify our key stakeholders as being:

- Our employees and contractors;
- Our customers;
- Our shareholders and the investment community;
- The community; and
- Governments.

Information about Orica's approach to sustainability and general operations is communicated through a range of forums, publications and online sources. These include:

- Our website www.orica.com;
- Orica's Annual General Meeting (this is also webcast);
- Orica's Annual Report (available in hard copy or online as an interactive report);
- Orica's Business Overview (available in hard copy or online as an interactive report);
- Orica's annual Sustainability Report (available online, printed copies are not produced); and
- Disclosures to the Australian Stock Exchange.

Read Orica's Annual Report and Business Overview by visiting <http://orica.onlinereports.info/>.

Our approach to engagement with key stakeholders in 2011 is outlined below.

Stakeholder Group	Typical Concerns & Interests	Engagement Activities
Employees and contractors	Career and development opportunities, performance management and senior leadership.	<p>While there are no formal mechanisms for employees to provide recommendations to the Orica Board we do provide forums where they can be heard. These include:</p> <ul style="list-style-type: none"> • Our annual Global Employee Survey. Read more in Employee Engagement (page 105); • The Orica Speak Up Line. Read more in Governance at Orica (page 19); • Deliver the Promise culture workshops; and • Direct communication with the Group Executive. <p>Other engagement mechanisms include:</p> <ul style="list-style-type: none"> • Our monthly newsletter, the Orica Update, published in 13 languages including English, Deutsch (German), Español (Spanish), Français (French), Bahasa (Indonesian), Português (Portuguese), Russian, Türkçe (Turkish), Mandarin (Chinese), Hindi (Indian), Norsk (Norwegian), Svenska (Swedish) and Polski (Polish); • Our quarterly sustainability newsletter, Towards No Harm (English only); and

Stakeholder Group	Typical Concerns & Interests	Engagement Activities
		<ul style="list-style-type: none"> Sustainability workshops, SH&E workshops, conferences and intranet materials.
Customers	Sustainability impacts of our products and services, cost and reliability of supply	<p>We engage with our customers to help them succeed by delivering the best solution, seeking better and faster ways to deliver products and services and responding rapidly to opportunities and change. Examples include:</p> <ul style="list-style-type: none"> Orica Chemicals is assisting customers to meet their sustainability objectives with the development of ONYX technology, a novel process to replace virgin oil with purified oil in emulsion explosives. Read more in our case study ONYX Technology (page 49); Minova's self-drilling bolt, Carbomine, is an example of how we engage with customers to establish their business needs as part of the product development process. Read more in our case study Ultra Safe Injection Resin (page 52); and Orica Mining Services rolled out their Global Feedback Database, a formal mechanism for capturing complaints and compliments relating to their products and services, in a third region in 2011.
Shareholders and the investment community	Company performance and governance, climate change exposure and opportunities	<ul style="list-style-type: none"> We engage and respond to our shareholders' sustainability queries at our Annual General Meeting and our half-year and end-of-year road show meetings; Our Investor Relations function accepts calls and meets with shareholders, and where appropriate, provides feedback to the Board; Shareholders can write to the Chairman of the Board; and Our sustainability performance is disclosed in the Dow Jones Sustainability Index (Chemicals sector), FTSE4Good Index and the Carbon Disclosure Project.
Community	Local operational impacts (i.e. noise, odour and contamination) and employment opportunities	<ul style="list-style-type: none"> We have site-specific programs for community contact, information sharing and community contributions. Read more in Community Engagement (page 111) and Community Contributions (page 112); We have systems in place to register, investigate and promptly respond to community complaints. Read more in Community Complaints (page 113); and All of our major sites have a designated Community Liaison Officer. For example, at our site in Botany, New South Wales, Australia we established a Community Liaison Committee in 1993. The Committee meets four times per year to discuss issues relating to the Botany Groundwater Clean Up project and remediation plans. Read more in Legacy Issues (page 46) and Community Engagement (page 111).
Government	Regulatory compliance, research and development opportunities and our ability to maintain positive relationships with our local communities	<p>We actively engage with relevant public agencies in all countries where we operate. These agencies include law enforcement, counter-terrorism, sustainability and climate change. Read more in Climate Change Implications (page 16).</p>

Stakeholder Grievances & Concerns

Our SH&E Model Procedures require that "Public complaints (both written and verbal) shall be registered, investigated and responded to promptly." We have a Speak Up Line for internal confidential feedback. Read more about our Speak Up Line in Governance at Orica (page 19). Stakeholders can also contact the Company directly. See Orica Limited's contact details at www.orica.com.

Our Economic Impact

We aim to deliver value to our shareholders and support local economies in a responsible manner. Our products, brands and services can be trusted for their reliability, range and quality. Each of our businesses - Orica Mining Services, Minova and Orica Chemicals - is the leader in its chosen market and enjoys a world-class reputation. Read more about our business groups in How We Contribute (page 4).

Orica's core strategy is to be the global leader in the provision of high service consumables to the mining and infrastructure markets, leveraged to long-term increases in production and development volumes. In executing this strategy we focus on four criteria which guide our success and growth:

1. Market leadership - We aim to be the market leader in each of our chosen global and regional businesses;
2. Invest in "winners" - We focus on investment in our best performing businesses, that have met financial performance targets and have earned the right to grow;
3. Grow "close to the core" - We pursue opportunities in related businesses where we can leverage our knowledge and expertise and achieve synergies; and
4. Productivity improvement - We have a relentless focus on improving productivity in all of our businesses.

At Orica, we believe that responsible corporate practices will not only benefit society, but will also enhance our financial performance. Read more about Orica's Balance Sheet on page 48 of the 2011 Annual Report by visiting <http://orica.onlinereports.info/>. Orica operates more than 250 sites worldwide.

Responsible Financial Management

Comprehensive practices have been adopted to monitor:

- That capital expenditure and revenue commitments above a certain size obtain prior Board approval;
- Financial exposures including the use of derivatives;
- Safety, health and environment standards and management systems to achieve high standards of performance and compliance; and
- That business transactions are properly authorised and executed.

Our internal audit function has a mandate for reviewing and recommending improvements to controls, processes and procedures used by the Company across its corporate and business activities. The Company's internal audit function is managed by the Chief Risk and Sustainability Officer and supported by an external firm of accountants.

The Company's financial statements are subject to an annual audit by an independent, professional auditor who also reviews the Company's half-yearly financial statements. The Board Audit and Risk Committee oversee this process on behalf of the Board.

Read more in our Corporate Governance Statement on page 14 of Orica's Annual Report, available by visiting <http://orica.onlinereports.info/>.

Our Performance in 2011

This year has seen Orica focus clearly on the mining and infrastructure sectors. For the tenth year in a row we are reporting record underlying profits.

Key highlights include ⁽¹⁾:

- Earnings before interest and tax from continuing operations up 2 percent; and
- Net profit after tax from continuing operations up 4 percent.

Read more about our financial performance in Orica's Annual Report by visiting <http://orica.onlinereports.info/>.

¹ Before individually material items.

Economic Value Generated & Distributed

We see our social responsibilities as being complementary to our financial performance and a critical component of both our licence to operate in all regions of the world and our ability to attract and retain the best employees. Our economic value generated and distributed is illustrated below.

Economic Value	2011 (\$m)	Definition
Direct Economic Value Generated		
a) Revenues	6,568.0	Net sales plus revenues from financial investments and sales of assets
Economic Value Distributed		
b) Operating costs	4,376.2	Payments to suppliers, non-strategic investments and royalties
c) Employee wages and benefits	1,041.8	Total monetary outflows for employees
d) Payments to providers of capital	145.5	All financial payments made to the providers of capital
e) Payments to government	229.7	Gross taxes
f) Community investments	1.5	Voluntary contributions and investment of funds in the broader community (includes donations)
Economic Value Retained		
g) Economic value retained	773.3	Investments, equity releases

Read more about our performance in Orica's Annual Report by visiting <http://orica.onlinereports.info/>.

Indirect Economic Impact

In addition to our strong economic performance and leading marketplace presence, our businesses indirectly support the economies in which they operate. We apply best available technology options at all of our operations, including in remote locations and emerging economies. While up-front costs are often higher, the ongoing benefits such as improved energy efficiency, safety and environmental performance and lower running costs are significant. We are committed to engaging local employees, contractors and business partners where possible.

Our ammonium nitrate operation currently under construction in Bontang, Indonesia, is an example of our philosophy in action; engineering, construction, maintenance, raw materials and all other supply contracts have only been tendered and awarded to local companies. We have worked closely with our local contracting partners to improve their safety standards, which in turn improves their competitiveness when bidding for work with other western organisations. Our workforce at Bontang are all Indonesian, including all levels of management except the site manager. Plans are in place to transition the site manager role to a local hire. Indonesia is expected to significantly reduce ammonium nitrate imports when production at our Bontang operation commences.

A similar approach is being taken for the construction of our Nanling initiating systems operation in the Hunan province in China. Like Bontang, the facility is being built to the highest engineering standards and we are again working closely with our local construction and engineering provider to ensure their engineering and safety standards meet our high expectations. Our workforce at Nanling are all local hires except the project manager and we intend to start up the facility with a Chinese site manager.

In Gomia, India, our initiating systems operation is integral to the local community. With 50 years of operation, the site has contributed extensively to the local community with the provision of housing, schools, medical facilities and improved water access.

Climate Change Implications

Climate change is a serious threat to society, global business and the environment. Orica's global operations emitted almost 2.6 million tonnes of carbon dioxide equivalent in 2011. Read more in Energy & Greenhouse Gases (page 72).

Risks

We are exposed to a range of regulatory and physical risks from climate change. We assess our risks by ensuring a detailed understanding of our emissions profile, the current and anticipated regulatory frameworks in the countries in which we operate, and the likely impacts of those regulatory frameworks. This is then applied across our operations and supply chain, with financial implications assessed by application of a sliding scale of likely carbon costs.

The pending Clean Energy Future legislation in Australia will likely lead to increases in the cost of raw materials and energy inputs as well as compliance and reporting requirements. Orica is in a unique position where greenhouse gas abatement opportunities exist and we are continuing to explore how we can take advantage of these opportunities. Read more in Emissions Reporting in Australia (page 16). At present, the European Union Emissions Trading Scheme does not cover our facilities. We anticipate that our activities in other countries will attract similar risks to those identified in Australia as relevant carbon pricing schemes are introduced.

Many of our Australian sites have already experienced the impact of changes in water availability. We have already implemented, or are developing measures to mitigate, the impact of water restrictions. The risk of extreme weather events has been considered in our risk management, emergency response planning and business continuity planning processes. We anticipate that extreme weather events may also impact on supply and price of input materials.

Opportunities

While we are committed to reducing our impact on the climate, we are also embracing several opportunities, including:

- Understanding the impact of Australia's pending Clean Energy Future legislation and Jobs and Competitiveness Program. Read more in Emissions Reporting in Australia (page 16);
- Understanding and participating in carbon abatement opportunities in the Clean Development Mechanism countries where we operate, including the Philippines and Indonesia;
- Significant energy savings identified through our participation in the Australian Energy Efficiency Opportunities (EEO) program. Read our EEO Reports in Previous Reports (Page 147);
- The opportunity to recycle water from our Groundwater Treatment Plant in Botany, New South Wales, Australia, reducing reliance on potable water. Read more in Water (page 76);
- The opportunity to replace potable water with recycled water at our at Kooragang Island site in New South Wales, Australia. Read more in Water (page 76);
- New technology that can provide significant abatement of our nitrous oxide emissions. Read more in Energy & Greenhouse Gases (page 72); and
- Products and services that minimise carbon emissions for our global mining customers. For example, the implementation of a new process to purify used oil for use in ammonium nitrate emulsion explosives products. Read more in our case study ONYX Technology (page 49).

Emissions Reporting in Australia

Throughout 2009 Orica was involved in regular meetings and discussions with the Australian Federal Government's Department of Climate Change and Energy Efficiency (DCCEE) to establish and define Orica's business activities that could qualify for assistance as Energy Intensive, Trade Exposed activities under the Jobs and Competitiveness Program (historically the Carbon Pollution Reduction Scheme). These discussions were constructive and led to agreed definitions of Orica's qualifying activities in late 2009. In 2011, Orica submitted independently audited data to the DCCEE for the following activities:

- The production of ammonia at Kooragang Island;
- The production of ammonium nitrate at Kooragang Island and Yarwun, Queensland; and

- The production of chlorine gas and sodium hydroxide (caustic soda) solution at Botany, New South Wales, Laverton, Victoria and Yarwun.

The three activity assessments are currently being reviewed by the DCCEE.

Orica reports in accordance with the Australian Federal Government's *National Greenhouse and Energy Reporting Act (2007)*. New systems and processes have been implemented for the collection and reporting of the data required and, in compliance with the legislation, Orica submitted its third annual report to the Greenhouse and Energy Data Officer of the DCCEE before the deadline of 31 October 2011.

Planning For a Low-Carbon Economy

We assess the cost and environmental impact of resource consumption from the point of view of:

- The scarcity of the resource;
- The environmental impact arising from its extraction and consumption; and
- Consequential environmental emissions, for example greenhouse gas emissions and environmental burden.

We also take into account the cost of disposal and other incidental costs, such as costs to discharge to sewer and greenhouse gas trading credits. Advice is sought on environmental impacts from internal and external experts, environmental authorities and the community. Priorities are set on the basis of total environmental impact and cost to the Company.

Contracts and expenditure proposals that meet certain threshold criteria must include a sustainability statement, containing:

- Background commentary including the increase or decrease in greenhouse gas emissions and/or the increase or decrease in water consumption due to the proposal;
- Sensitivity analyses summarising the impact of the inclusions of a shadow price for greenhouse gas emissions and/or water consumption; and
- Conclusions as to whether the contract/expenditure proposal is still viable after the inclusion of shadow pricing.

Sustainability impacts are being considered in more depth as part of the approval process for major projects. We also run specific financial models of cost/revenue outcomes for abatement opportunities and marketing plans to customers that incorporate greenhouse gas-related business opportunities. Read more in Energy & Greenhouse Gases (page 72).

A life cycle assessment was completed on Project ONYX in 2011. Project ONYX is a novel process that replaces virgin oil with purified oil in ammonium nitrate emulsion explosives products. Read more in our case study ONYX Technology (page 49). In previous years, life cycle assessments have been completed on chlorine and its associated products and ammonium nitrate. These life cycle assessments assess the environmental aspects and potential impacts associated with the products from raw material input and manufacture through to end use. We continue to utilise these studies to inform our approach to managing the life cycle impacts of our major products.

Governance 2011

Governance at Orica

Our revised sustainability strategy identifies Governance as a key enabler to improving our sustainability performance. Read more in Our Sustainability Strategy (page 3).

At Orica, effective sustainability governance means having sound business and risk management processes that deliver solid financial returns whilst balancing social and environmental factors.

Our governance approach recognises that the successful management of our sustainability challenges and opportunities is important to our employees, customers, communities and our business.

Code of Conduct

Orica acknowledges the need for directors, executives, employees and contractors to observe the highest ethical standards of corporate and business behaviour. Orica has adopted a Code of Conduct (titled: Your Guide To How We Do Business) which applies to all countries in which Orica operates. The Code of Conduct sets out the standards of business conduct required of all employees and contractors of the Company. It is aimed at ensuring the Company maintains its good reputation and that its business is conducted with integrity and in an environment of openness.

The Code of Conduct is available in 13 languages. Read Orica's Code of Conduct by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_Code_of_Conduct.pdf.

Risk Management

Orica aims to maintain a consistent and effective organisation-wide approach to the management of risks. Our Risk Management Framework provides a transparent approach to managing risk across Orica and is applied to financial and non-financial risks, including sustainability risks.

The Board establishes policies for the oversight and management of material business risks and internal controls. The design and implementation of risk management and internal control systems to manage the Company's material business risks is the responsibility of management.

The Board, through the Board Audit and Risk Committee (BARC), satisfies itself that management has developed and implemented a sound system of risk management and internal control.

A separate role of Chief Risk and Sustainability Officer exists, reporting to the Executive Director Finance and with direct access to the BARC, to manage the Company's risk management and internal audit program.

One or more independent external firm(s) of accountants assists the Chief Risk and Sustainability Officer in ensuring compliance with internal controls and risk management programs by reviewing the effectiveness of the risk management and internal control systems, and periodically provides assistance and input when undertaking risk assessments.

Read more in our Corporate Governance Statement on page 14 of Orica's Annual Report, available by visiting <http://orica.onlinereports.info/>.

Due Diligence

Each year, our business groups are required to prepare a Letter of Assurance to the CEO and Executive Director Finance on their safety, health and environment (SH&E), physical security and financial performance. The Letter of Assurance process demonstrates to the CEO, Executive Director of Finance and the Board that our systems are being implemented and highlights areas of particular concern.

The SH&E Letter of Assurance is prepared by each site and business, declaring their level of compliance with the SH&E Management System including SH&E Model Procedures. Read more about SH&E Management (page 59).

Our Corporate SH&E Auditors assess the effectiveness of our sites' SH&E management systems, compliance with SH&E Model Procedure key requirements, management of significant risks and potential environmental legacy issues. The audit findings are reported to the site teams, Group General Managers and the Corporate SH&E Manager. Each audit is accompanied by a series of recommendations for prioritisation and action by the site and business management teams.

Our Speak Up Line

Our integrity hotline, the Speak Up Line, and associated website and email facility enables employees to anonymously report breaches of the Code of Conduct. If a report is made, it is escalated as appropriate for investigation and action.

In 2011 the Speak Up Line received 39 reported incidents, an increase from 31 in 2010. The most common type of incidents related to breaches in policies and procedures (11 reports), followed by harassment and discrimination (eight reports each). Other less common types of incidents related to unfair dismissal, conflicts of interest and SH&E. Of the 39 incidents reported, 12 were reported in Australia, 11 in the United States of America, four each in New Zealand, Chile and Alaska, two in the Philippines and one each in the United Kingdom and Zambia.

Donations

Orica's corporate donations program is funded to the equivalent of dividends payable on a shareholding of 0.5 percent of ordinary Orica shares. Orica makes contributions aligned to eight principles for donations and focussing on three priority areas - the environment, science and engineering, and education with a particular emphasis on science education. Orica also has an employee workplace giving program which matches employee donations up to a certain value, across twelve charities selected by our employees. Read more in Community Contributions (page 112).

Political Contributions & Activities

We do not contribute funds to any political party or candidate for election. It is sometimes necessary for us to participate in the political process to advance our views on public policy in the best interests of value creation for Orica.

Leadership at Orica

Our commitment to sustainability, and in particular safety, health and environment (SH&E), is reflected in our clear definition of roles and accountability throughout our organisation. This is visually represented in Figure 2 below.

Director, executive and employee performance is appraised against our Deliver the Promise principles and behaviours. These principles and behaviours refer specifically to continual SH&E improvements and meeting the needs of customers and community in an environmentally sustainable manner. A proportion of Orica employees' remuneration, including all senior management, is linked to key SH&E performance indicators. Read more about Deliver the Promise in Our Culture (page 102).

Read more about our senior management remuneration policies and performance in our Remuneration Report on page 28 of Orica's Annual Report, available by visiting <http://orica.onlinereports.info/>.

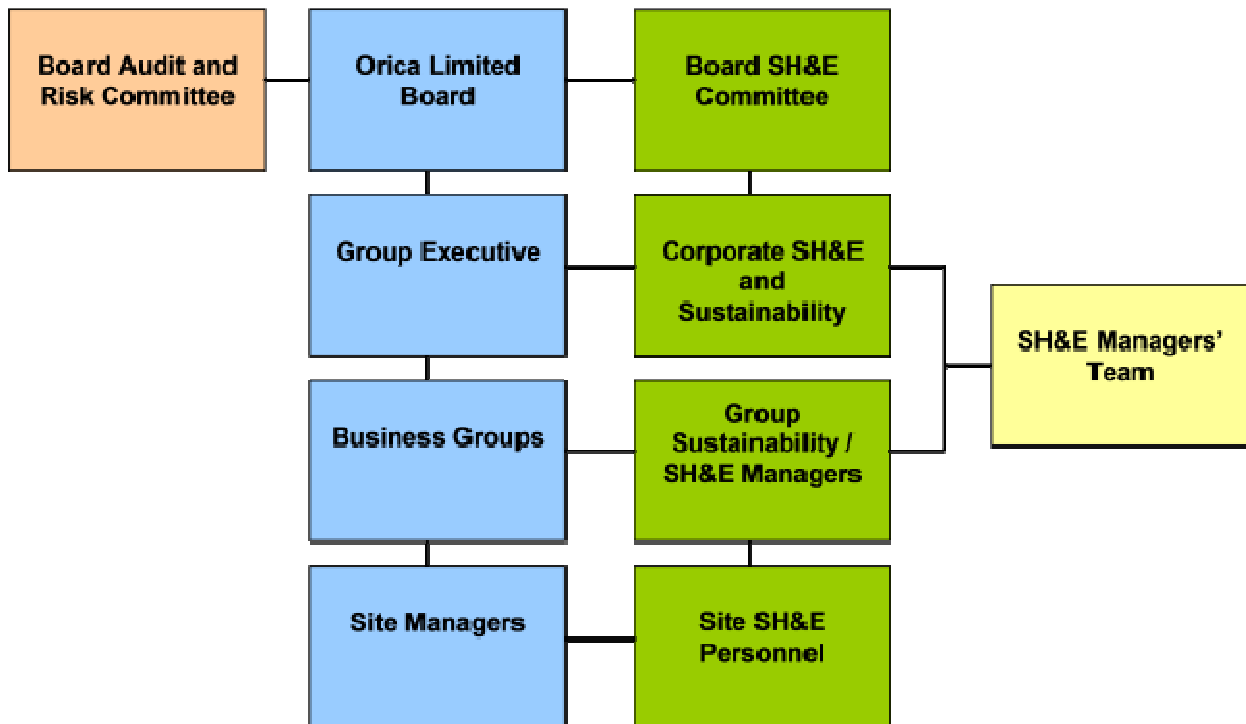


Figure 2. Leadership at Orica.

Orica Limited Board

Orica's directors and management are committed to conducting the Company's business ethically and in accordance with high standards of corporate governance.

We understand that good corporate governance practices and strong sustainability performance protect and enhance our value to shareholders. The Board receives quarterly sustainability reports, and monthly SH&E reports, that detail performance and issues across the group.

Orica maintains a majority of non-executive directors on its Board and separates the role of Chairman and Managing Director. One of the Board's non-executive directors is female as is Orica's Company Secretary. Read more about Orica's Board members, including their qualifications, experience and responsibilities at www.orica.com and our approach to diversity in Labour Practices (page 106).

The composition of the Board seeks to achieve the necessary competencies as well as a diversity of perspective through a range of experience, skills, knowledge and backgrounds. In reviewing the Board's composition and in assessing nominations for appointment as non-executive directors, the Board uses external professional advice as well as its own resources to identify candidates for appointment as directors. Processes are in place to ensure conflicts of interest are avoided in our Board appointments.

Read more about our approach to Independence and Continuous Disclosure in our Corporate Governance Statement on page 14 of Orica's Annual Report, available by visiting <http://orica.onlinereports.info/>.

Board Audit & Risk Committee

The Board Audit and Risk Committee (BARC) is charged with assessing the adequacy of the Company's financial and operating controls, oversight of risk management systems and compliance with legal requirements and the Code of Conduct affecting the Company.

A separate role of Chief Risk and Sustainability Officer exists, reporting to the Executive Director Finance and liaising directly with the BARC, to manage the Company's risk management and internal audit program.

Read more about the Board Audit and Risk Committee at www.orica.com.

Board SH&E Committee

The Board SH&E Committee assists the Board in the effective discharge of its responsibilities in relation to SH&E matters arising from Company activities as they affect employees, contractors, visitors and the communities in which we operate. The Committee reviews the setting of appropriate SH&E targets and strategies, monitors compliance with Orica's SH&E policies, reviews significant SH&E investigations/reports and considers SH&E issues that may have strategic, business or reputational implications for Orica.

A SH&E Letter of Assurance is written by the Managing Director and presented to the Board SH&E Committee on an annual basis after a thorough process of assessment by each business.

Read more about the SH&E Letter of Assurance under Due Diligence in Governance at Orica (page 19). Read more about the Board SH&E Committee at www.orica.com.

Group Executive

Orica's Group Executive is a forum for strategy development, sustainability and SH&E governance for the Company. In particular, the Group Executive:

- Recommends SH&E and sustainability policy to the Board;
- Approves the strategy and sets performance targets;
- Monitors SH&E compliance and governance through audit reviews and SH&E Letters of Assurance;
- Endorses actions to address Company-wide improvement opportunities; and
- Endorses Company positions on significant external sustainability and SH&E issues at governmental and industry associations.

Business Groups

The Business Group General Management Teams, and their Group Sustainability and SH&E Managers, are accountable for the communication and implementation of the SH&E Policy within their respective businesses.

Read our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

Site Managers

All Orica line managers, employees and contractors are signatories to our SH&E Charter, which details what is expected of them and also what they can expect from Orica in providing a safe and environmentally responsible workplace. Our site managers are provided with SH&E and general leadership training and are expected to provide strong SH&E leadership for their teams, through setting the right standards and monitoring compliance.

Read our SH&E Charter by visiting http://www.orica.com/sustainability/files/2011SHE/Orica_SH&E_Charter.pdf.

SH&E & Sustainability Managers

The Corporate SH&E Manager, in association with the various Group SH&E Managers and associated SH&E personnel, provides technical policy and strategy support and advice to the Group Executive. The Corporate SH&E Manager provides the formal reporting of the Company's SH&E performance.

The Corporate Sustainability Manager works with the businesses to implement Orica's sustainability framework and is responsible for the formal reporting of the Company's sustainability performance.

SH&E Managers' Team

Corporate and Group SH&E Managers participate in monthly meetings and provide advice and support to business line managers.

Site SH&E Personnel

All Orica sites are required to have a SH&E Committee. These committees include representatives from management and representatives from each of the workgroups on site. They work to meet SH&E objectives and improve SH&E performance.

Recognition & Awards

In 2011 our sustainability efforts were acknowledged by the following recognitions and awards.

Recognition

Dow Jones Sustainability Index

Launched in 1999, the Dow Jones Sustainability Index (DJSI) is the first global index tracking the financial performance of the leading sustainability-driven companies worldwide. In 2011 we maintained our inclusion in the DJSI (Chemicals sector).



FTSE4Good Index Series

In April 2011 Orica received certification as a constituent company in the FTSE4Good Index Series. The FTSE4Good Index Series is designed to identify companies that meet globally recognised corporate responsibility standards. Orica and other member companies are working towards environmental sustainability, developing positive relationships with stakeholders and up-holding and supporting universal human rights. View our Certificate of Membership by visiting http://www.orica.com/sustainability/files/2011OurApproach/FTSE4Good_Orica_Certificate_of_Membership_2011.pdf.

Awards

Green Ribbon for Sustainability

Orica Watercare North America was awarded the prestigious Green Ribbon for Sustainability by an international leader in the water industry, the American Water Works Association. Read more in our case study Watercare's Green Ribbon (page 54).

Our Approach to Reporting

Our Safety, Health and Environment (SH&E) Policy states that we will "communicate openly about our activities and report progress on our safety, health and environmental performance". Read our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

We publicly report on our sustainability performance in a variety of ways, including:

- Our annual, online Sustainability Report, which has been prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines Version 3.0 & 3.1, and the 2011 Sustainability Snapshot summary of our performance. Read our 2011 Sustainability Snapshot by visiting http://www.orica.com/sustainability/files/2011OtherNav/Orica_2011_Sustainability_Snapshot.pdf;
- Relevant sections of our Annual Report and Business Overview. Read more at <http://orica.onlinereports.info/>; and
- Site SH&E Reports - our operations produce their own reports that are specific to their site circumstances, regional context and stakeholder needs.

The purpose of Orica's Sustainability Report is to provide our stakeholders with an overall picture of relevant aspects and results for 2011. We have endeavoured to provide information that is in accordance with sound reporting practice. We have not sought independent verification of information contained in this web-based 2011 Sustainability Report, with the exception of financial information in Our Economic Impact (page 14). Read more about the independent assurance of our financial information in Orica's Annual Report by visiting <http://orica.onlinereports.info/>.

We achieved a "B" GRI Checked Application Level for our 2011 Sustainability Report. Refer to our GRI Index (page 134) for more information about the indicators we have reported on.

Information about our current performance is also available through various industry reporting initiatives, including the Carbon Disclosure Project. Our annual responses to the Carbon Disclosure Project can be downloaded through the Carbon Disclosure Project website <https://www.cdproject.net/en-US/Pages/HomePage.aspx>.

Our previous Sustainability Report was released in November 2010. Download our previous Sustainability and SH&E Reports in Previous Reports (Page 147).

Feedback

We welcome your feedback on our 2011 Sustainability Report. You can contact us via email or phone.

Email: sustainability.team@orica.com

Telephone: +61 3 9665 7111

We appreciate the feedback we receive about our previous Sustainability Reports and consider it in the development of subsequent disclosures. While feedback about our 2010 Sustainability Report was generally very positive, five suggestions we have sought to resolve in 2011 are:

1. More balanced discussion on societal and financial benefits versus impacts - We received feedback that the focus of our 2010 Sustainability Report was on reducing our negative impacts and we could direct more attention to balancing this with the positive benefits of our company. This year we endeavour to exemplify where we have added value to society through our broadened sustainability strategy;
2. Report length - We have endeavoured to shorten our 2011 Sustainability Report after receiving feedback that there was lengthy information that did not add value to our stakeholders. We again created our Sustainability Snapshot summary of our performance. Read our 2011 Sustainability Snapshot by visiting http://www.orica.com/sustainability/files/2011OtherNav/Orica_2011_Sustainability_Snapshot.pdf;
3. Misprint of All Worker Recordable Case Rate (AWRCR) target - Twice within the Safety & Health section of our 2010 Sustainability Report, our AWRCR target was noted as 0.49. The correct target was 0.40;
4. More information on operations in remote regions - We received questions relating to our operations in remote regions, which are often small operations in Orica's business suite. We aim to capture and report data that is material to our sustainability profile and we are continuing to improve our communication and reporting structures in the remote regions in which we operate; and

5. Animal testing - We also received questions relating to animal testing and have subsequently added detail in the 2011 Sustainability Report. Read more under Research & Development in The Product Life Cycle (page 34).

Report Scope & Boundary

In accordance with GRI Guidelines, our web-based 2011 Sustainability Report covers all entities that generate significant sustainability impacts (actual and potential) and all entities over which we exercise control or significant influence with regard to financial and operating policies and practices.

Entities over which we don't exercise significant influence and control (e.g. our supply chain) are included in our narrative disclosures due to the materiality of their impact on our business.

The statistics in this Report cover sites owned and operated wholly by Orica Limited subsidiaries or operated by Orica Limited subsidiaries in a 50 percent or more joint venture operation during the 12 month period to 30 September 2011, with the exception of energy, greenhouse gas emissions, water and waste data, which includes only those operations owned and operated wholly by Orica Limited subsidiaries. Data is reported on a 100 percent basis for facilities operated by Orica Limited subsidiaries irrespective of our equity share, unless otherwise stated. Joint venture projects that are not operated by Orica are excluded unless expressly stated. All monetary amounts in the Report are in Australian dollars unless otherwise stated.

Many of our 2010 SH&E and product stewardship metrics (not those for 2009 or prior) have been revised to exclude DuluxGroup data. DuluxGroup was demerged from Orica in July 2010. These revisions ensure that going forward Orica has sound baselines from which to measure progress. Data that has been revised to exclude DuluxGroup is noted throughout the Report.

Energy consumption and energy intensity figures for 2010 have been updated to reflect energy incorporated in product that is consumed by our international sites. This data was previously unavailable.

We report greenhouse gas emissions, energy consumption and energy production from our Australian facilities in accordance with the Australian Government's *National Greenhouse and Energy Reporting Act (2007)* and appropriate guidelines. Greenhouse gas emissions from our non-Australian sites are reported using the same general framework, with the application of local energy and emission factors. The reporting of this non-Australian data is based on materiality thresholds.

Where employee information is not reported on an all-of-company basis, limitations are stated in the relevant section of the Report. For example, basic salary figures are only stated for men and women in Australia and New Zealand.

While every effort has been made to ensure the accuracy of the information, anyone seeking to rely on information in this Report or seeking to draw conclusions from the data should not do so before contacting the Company for verification and assistance.

Mergers, Acquisitions & Development

Orica Mining Services completed the acquisition of Titanobel Belgique S.A. (subsequently renamed as Orica Belgium) and its two subsidiaries, Cefor Cetramin and Transmate. These companies are leading suppliers of explosives, drilling and blasting services to the Belgian quarry market.

The Business also completed the acquisition of Sociedade de Explosivos Civis S.A. (SEC) (subsequently renamed as Orica Mining Services Portugal S.A.), the leading supplier of explosives to the Portuguese mining and quarrying markets.

Both acquisitions strengthen Orica's presence in Western Europe and provide for expansion opportunities into French and Portuguese speaking Africa.

In addition, a number of further small acquisitions were undertaken throughout the world to expand Orica's presence in key markets.

Materiality

In accordance with GRI Guidelines, our web-based 2011 Sustainability Report attempts to cover topics and indicators that reflect Orica's significant economic, environmental and social impacts or that would substantively influence the assessments and decisions of stakeholders.

Our Report prioritises material topics and GRI Indicators. "Core" and "Additional" indicators have been addressed where they are material to our business.

Our Report aims to meet the various information expectations of its broad stakeholder audience by drawing upon feedback from our:

- Regular consultation with our host communities and partners;
- Annual General Meeting and regular contact with the investment community; and
- Interactions with regulatory bodies, host government, special interest groups and industry programs.

To comprehensively meet the information needs of our stakeholders, particularly at the local and regional level, our operations also produce annual, publicly available, site SH&E Reports that are specific to their site circumstances, regional context and stakeholder needs.

Explanation of Company Terms

Orica is an Australian owned, publicly listed global company with headquarters in Melbourne, Victoria, Australia.

Orica Limited shares are listed on the Australian Securities Exchange and are traded under the code ORI.

The Company's financial year runs from 1 October to 30 September with half-year results announced in May and results for the full financial year announced in November each year.

Orica Limited Contact Details

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Telephone: +61 3 9665 7111

Email: companyinfo@orica.com

ABN 24 004 145 868

2011 Case Studies

Below are short summaries of our case studies in 2011 under the categories:

- Product Stewardship;
- Safety, Health & Environment; and
- People & Community.

Product Stewardship Case Studies

ONYX Technology (page 49)	Orica Mining Chemicals developed a process to use purified oil in the production of ammonium nitrate emulsion explosives products.
More Sustainable Detergents (page 51)	Orica Chemicals New Zealand developed more environmentally friendly membrane detergents.
Ultra Safe Injection Resin (page 52)	Minova Australia's new "Ultra Safe" Injection Resin is providing safety and productivity benefits for the Australian coal mining industry.
Minova's New Bolting System (page 53)	Minova Kazakhstan is producing new bolting systems to meet international standards and improve safety.
Watercare's Green Ribbon (page 54)	Orica Watercare has been awarded the prestigious "Green Ribbon for Sustainability" by an international leader in the water industry, the American Water Works Association.
Going Clear in NZ (page 55)	Orica Chemicals New Zealand showcased their innovative green product, GoClear, at the Green Chemistry Expo in Tauranga, New Zealand this year.
A New Tanker CoDe System (page 56)	Orica Chemicals has a determined commitment to continuously improving safety, both at our own sites and in the safe distribution and delivery of our products.

Safety, Health & Environment Case Studies

Safety at Essen (page 84)	The Minova team at our Essen site in Germany spent a week focusing on road safety and developed a site emergency plan.
Reaching Platinum Status (page 85)	Four Orica Mining Services (OMS) sites in Latin America achieved "platinum status" in OMS' World Class Check Point program.
Inspiring Workplace Safety (page 87)	Orica employees contracted to the Argyle Diamond Mine in Western Australia recognised 600 days without lost time due to injury.
Project Canary Program (page 88)	The latest safety training program for OMS' employees is successfully rolling out across sites in Australia and Asia.
10 Years Accident Free (page 89)	Orica Watercare North America reached a significant milestone of 10 years accident free.
Worker Health Checks (page 91)	Orica Australia's Victorian and New South Wales operations have taken advantage of WorkSafe Victoria's free worker health checks for all staff.
A Race for Health (page 92)	In May, women from the Orica Gyttorp site in Sweden participated in the SpringRace, part of an annual tradition held in the nearby city of Örebro.
Sustainability Savings in WA (page 93)	An innovative idea from a group of operators at two Orica facilities in Western Australia has resulted in immense water and cost savings.
Small Initiative, Big Impact (page 94)	The team at Minova in Smithfield, Australia, have recycled more than 7,500 empty aluminium cans in six months.
Corks for Elephants (page 95)	Orica's Victoria Parade and Nicholson Street offices in Melbourne have been collecting and recycling corks, plastic stoppers and aluminium screw tops.
Green Offices in NZ (page 96)	Orica's New Zealand offices continue to examine and implement ways to reduce energy use and waste to landfill as part of their Green Office Program.
Reducing Styrene Emissions (page 97)	Minova have reduced styrene emissions at their Bluefield site in the United States of America by approximately 75 percent.

What Goes Around (page 98)	Morrinsville, New Zealand implemented various environmental initiatives to reduce water consumption and waste sent to landfill.
Metal Reclaim (page 99)	Minova, United States of America, now reclaim 100 percent of the metal used on their sites, reducing the volume and toxicity of waste generated and saving approximately US\$10,000.

People & Community Case Studies

Orica Makes a Difference (page 115)	Throughout the year Orica employees have been raising money and donating handmade goods to help those in need around the world.
Keeping Business Going (page 117)	Orica Chemicals worked to restore their warehouse and help their suppliers and customers after two devastating earthquakes in Christchurch, New Zealand.
Relay for Life (page 119)	Thirty-nine Orica employees participated in Relay's for Life to raise over \$16,000 for the New Zealand Cancer Society and Queensland Cancer Council.
University Partnership in India (page 121)	OMS partnered with the Indian Institute of Technology Bombay and Monash University to sponsor the IITB-Monash Research Academy.
Minova's Technical Training (page 122)	Minova's tunnelling and civil engineering teams from Asia met for an intensive week of product and application training to further their technical development.
Global Graduate Program (page 123)	In 2011 Orica launched a new Global Graduate Strategy to align the existing regional programs and deliver a consistent and competitive global program.
Food for Thought (page 124)	Five Orica sites in Australia worked together to donate around nine trolley loads of food to the World Food Day appeal.
Women in Leadership (page 125)	Orica is creating a formal network of current and emerging female leaders across platforms and geographies through our Women in Leadership Network.
Helping Out the Fire Service (page 126)	Orica Chemicals at Mount Maunganui, New Zealand, donated four tanks to the New Zealand Fire Service to assist with training needs.
Yarwun Helps Save Lives (page 127)	Orica's Yarwun site donated a \$3,600 medical instrument called the EZ-IO to the local Gladstone Hospital to aid in emergency fluid and blood replacement.
Giving & Living (page 128)	Orica employees living and working overseas are contributing their time, skills and money to the communities where they live.
Student Miners (page 130)	Minova welcomed nine miners from Svalbard, in northern Norway, for a study tour of our manufacturing facility in Essen, Germany.
Global Conservation (page 131)	Orica has donated \$470,000 to the Nature Conservancy to help preserve natural environments, wildlife and people.
Learning While Playing (page 132)	OMS Colombia entered into a partnership with Children's Day Corporation in an effort to work towards ensuring the sustainability of their local communities.

Product Stewardship 2011

Overview

Our revised sustainability strategy includes a strong focus on product stewardship. Read more in Our Sustainability Strategy (page 3).

At Orica, product stewardship means adopting life cycle thinking in the creation and delivery of our products and services. It requires engagement with our customers so we can understand and respond to their evolving needs.

Our safety, health and environment (SH&E) Standard on Product Stewardship states that: "All Orica controlled businesses shall ensure that they manage, in an ethical and responsible manner, all the SH&E aspects of a product from its initial conception to its ultimate use and disposal. The SH&E implications shall be taken into account prior to the launch of new products and in the selection and development of new processes. The hazards from new products and processes, and the consequent risks, shall be reduced so far as is reasonably practicable to reduce potential SH&E impacts."

We consider potential sustainability impacts when developing products and services, and before introducing new formulations and packaging. The life cycle stages of our products are regularly assessed for improvement. This involves looking at where the raw materials are sourced and how they are packaged and stipulating conditions on suppliers. We have management systems in place to protect our employees, our plant and equipment, the community and the environment from damage during the manufacture, storage, handling and distribution of our products. When our products leave our direct control and are distributed, sold and used by our customers, we aim to influence the responsible storage, use and eventual consumption or disposal of the product.

Our Performance in 2011

Product stewardship is a key focus area for our businesses, as exemplified by the following significant achievements in 2011.

Orica Mining Services (OMS)

- OMS' Global Logistics Committee continued to execute and deliver on the global Safety Improvement Plan established in 2009. System enhancements on risk assessments and policy were designed and implemented in 2010 to further enable training, gap identification and compliance monitoring. A new Transportation Expert Panel was formed in 2011 to drive the next Basis of Safety adjustments across the various modes of transportation. Read more about Expert Panels in Process Safety (page 42);
- Product Stewardship Champions reviewed and revised the self assessment tool used by OMS to ensure it represents the global nature of the business;
- A Steering Committee charged with raising the profile of product stewardship in the group continues to work closely with the Product Stewardship Champions. In 2011 there was increased focus on completing assessments and in the future the Committee plans to develop a product stewardship score;
- Cross-regional auditing of product stewardship self assessments was completed for the first time in 2010, enhancing the comparability and consistency of results between the four regions (Australia/Asia; Europe, Middle East and Africa; North America; and Latin America). The next auditing session is scheduled for November 2011;
- The Global Feedback Database, a formal mechanism for capturing complaints and compliments relating to OMS products and services, was rolled out in a third region in 2011; and
- OMS is committed to the responsible management of lead in the manufacture of our initiating systems products. Waste lead is captured at our manufacturing facilities in Brownsburg, Canada and La Portada, Chile and returned to the supplier for re-use.

Minova

- Minova is currently developing a sustainability strategy that will have a strong focus on product stewardship. The strategy will target innovation, product development and stewardship opportunities, in partnership with customers, to differentiate Minova from its competitors. The strategy will be developed, refined and enacted in 2012;
- Minova has created four centralised Centres of Excellence focussed on the main product lines; including Cementitious Grouts, Steel, Resin Anchors and Injection Chemicals. These Centres of Excellence are central hubs for research and product development, and are supported by a coordinated research and development network; and
- Minova Kazakhstan is producing new bolting systems to meet international standards and improve safety. Read more in our case study Minova's New Bolting System (page 53).

Orica Chemicals

- The Chemicals Group launched its Sustainability Plan in 2011. The plan continues to enforce the focus placed on product stewardship activities and how we will work with our customers and suppliers to deliver more sustainable outcomes;
- Eight life cycle risk assessments were completed during the year for Chemicals Australia;
- The Chemicals Group continues to roll out individual product stewardship plans for product managers. A program of compliance audits against the requirements of these plans has also been instituted. The outcome of these audits is one of the inputs considered in product manager performance appraisals;
- The Chemicals Group launched a new Environmental Compliance Framework to:
 - Improve the centralised assurance processes, and to ensure environmental legislative compliance is maintained;
 - Provide a greater range of programs, tools and training to our manufacturing and warehousing operations; and
 - Enable regional site managers to better understand and meet their environmental obligations;
- The Chemicals Group developed a risk allocation spreadsheet to assist in the prioritisation of products suitable for undergoing a life cycle assessment (LCA). Awareness training in relation to the LCA process and the broader approach to product stewardship has been deployed to Chemicals New Zealand;

- A LCA was completed on Project ONYX, an innovative new process that takes waste oil and purifies it for use in explosive products. Read more about Project ONYX in our case study ONYX Technology (page 49);
- The business continues to focus on resource conservation activities. One notable outcome was a project to reuse the waste brine from a regional manufacturing site as a process input at a nearby site. Savings in the order of 240 kilo litres of potable water and \$70,000 per year in waste disposal costs are expected. Read more in our case study Sustainability Savings in WA (page 93);
- All high-risk products supplied from China and India were identified in 2011. To minimise the risk of incorrectly labelled product being imported into Australia and having to be re-labelled locally, legally compliant label templates are provided to overseas suppliers who may not be familiar with Australian requirements for the labelling of hazardous substances;
- Chemicals New Zealand trained all product stewards in toll manufacturing assessments and implemented a specific SH&E induction process for commercial roles; and
- A recent review and risk assessment of Australian toll manufacturing activities has led to a strengthening of the toll manufacturing process and development of a new toll manufacturer inspection process. A risk assessment of third party warehousing activities and intermediate bulk container distribution was completed across all operations in Australia and New Zealand.

Orica Corporate

- This year the Corporate SH&E Team completed an audit of Chemicals Australia's product stewardship system. Learnings from this audit are being incorporated into the upgraded Product Stewardship Model Procedures. Read more about our Model Procedures in SH&E Management (page 59).

The Product Life Cycle

We aim to ensure that the safety health and environmental (SH&E) impact of our 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, manufacture, storage, sale, transport, use and disposal.

Orica has engaged external specialists to conduct detailed life cycle assessments of chlorine manufacture, ammonium nitrate production and a novel process to purify used oil for use in emulsion manufacture. The outputs of the assessments are used to identify opportunities for improvement and develop more environmentally sound products for our customers.

Management

Product stewardship is a business group responsibility. Businesses have appointed product stewardship coordinators to ensure that the various aspects of product stewardship are being attended to and that product stewardship plans are in place. Each business undertakes an annual self-assessment based on the International Chemical Council's Responsible Care[®] Product Stewardship Code of Practice and sets goals for performance improvement. Read more about Responsible Care in Participation & Commitments (page 39).

Information

Provision of information is an important part of the product stewardship strategy. The product label and the Material Safety Data Sheet (MSDS) are the primary sources of information available to users of our products. This can be supplemented with further literature and specification sheets, special training on the handling and use of products, safety posters, videos and direct advice from expert safety advisors and other specialists. Product stewardship programs such as Ammsafe for ammonia, Chlorine Safeguard for chlorine and Solvent Care for chlorinated solvents are designed to ensure the customer has the latest information on the products and how they are safely used. Orica's Emergency Response Service is a further source of information particularly in emergency situations. Customer feedback, complaints and incidents involving the Company's products are recorded and the learnings are used to improve performance. Read more about MSDS' in Product Safety (page 42). Read more about our Emergency Response Service (page 43) and Community Complaints (page 113).

Research & Development

Before developing or introducing a new product, considerable attention is given to determine the physical, chemical and biological properties and assessing the potential risks to people and the environment. This activity is regulated under various chemical control regimes in the different jurisdictions in which we operate, for example, the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) for industrial chemicals, the Australian Pesticides and Veterinary Medicines Authority (APVMA) for agricultural and veterinary chemicals in Australia, Food Standards Australia New Zealand (FSANZ), the Environmental Risk Management Authority (ERMA), New Zealand Chemical Institute (NZCIC), Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in the Europe Union and the Toxic Substances Control Act (TSCA) in the United States of America.

Where possible, Orica uses computer modelling in place of animal testing. However, in certain circumstances where legislative authorities stipulate animal testing must take place, Orica has contracted third parties to conduct the activity. In 2005, animal testing was required to gain approval for the sale of Landguard (a product developed in conjunction with the Commonwealth Scientific and Industrial Research Organisation for the management of pesticide residues on farms) in Europe, Australia and the United States of America. In 2011 Orica Chemicals commissioned aquatic testing for a new product designed to prevent evaporation from water storages. The work will evaluate the toxicity of the chemical on algae, water fleas and fish.

As a lead registrant under the European REACH regulations, we have guided our industry to ensure a higher degree of safety for human and environmental health. The entire life cycle of a substance is taken into account during the registration process, and registration is only possible when safe use is demonstrated. Orica is actively working on these processes with the European Chemical Agency and provides support when needed.

Blasting services are offered to our customers where Orica can use its experience and technical expertise to provide a better outcome. We develop computer blast models, design software, and measurement tools that aid

in the design and implementation of better blasting practices. Through the development of new products and systems Orica is also able to develop new blasting and mining methods. These technologies are then bundled to provide a superior blasting service.

Examples of our activities in 2011 include:

- Orica Mining Chemicals developed a process to purify oil for use in the production of ammonium nitrate emulsion explosives products. Read more in our case study ONYX Technology (page 49);
- Orica Chemicals New Zealand developed a urea-based diesel exhaust system additive that reduces nitrogen oxide emissions. Read more in our case study Going Clear in NZ (page 55); and
- Orica Watercare was awarded the American Water Works Association's "Green Ribbon for Sustainability" for two sustainable product developments. Read more in our case study Watercare's Green Ribbon (page 54).

Read more about our research and development centres in Value Chain Engagement (page 37).

Manufacture

Before a new product is manufactured or a new process is commissioned on a plant, a number of specifically designed Hazard Studies are used to assess and eliminate or control associated hazards. Read more about Hazard Studies in Process Safety (page 64).

Major suppliers of goods and raw materials are assessed on the merits of their SH&E performance alongside commercial terms. Packaging options are assessed with the aim of ensuring the security of the product and minimising transport and handling issues. Processes are optimised to maximise efficiency and to minimise waste.

Examples of our activities in 2011 include:

- Minova's Ksante site in Poland has eliminated the use of diisobutyl phthalate in their production process, decreasing the risk of chemical exposure. The site has also updated their process pumps and the local storm and sanitary water pumping system to reduce the risk of leaks and improve the reliability of the site's waste water management system;
- Our new Orica Mining Services (OMS) sites currently under construction in Bontang, Indonesia and Nanling, China, have been built to the highest engineering standards. We work closely with our local contracting partners to improve their safety standards, which in turn improves their competitiveness when bidding for work with other western organisations. Read more in Our Economic Impact (page 14);
- Orica's Initiating Systems (IS) Expert Panel updated the Process Safety Guide for the Control of Static Electricity in IS Plants. The Panel also launched a new Manufacturing Safety Document regarding the manufacture of cast boosters. This important information is relevant to OMS manufacturing, maintenance, raw material procurement and technical personnel and is available on OMS' intranet; and
- Minova Kazakhstan is producing new bolting systems to meet international standards and improve safety. Read more in our case study Minova's New Bolting System (page 53).

Distribution

SH&E performance is an important factor when selecting transport companies for the distribution of products, warehouses for the storage of products, and ports for the import and export of raw materials and finished goods. Our transport drivers are trained to identify and avert potential SH&E risks at customer sites and other facilities. Desktop emergency exercises are conducted with transport companies and emergency authorities. Records are kept of transport and storage incidents involving the Company's products. Read more in Distribution Incidents (page 45) and Product Safety (page 42).

Examples of our activities in 2011 include:

- OMS conducts port audits where dangerous goods are imported and exported, and shipping managers are required to approve all vessels prior to loading through a vetting process. For inland transportation by road, OMS conducts route risk assessments to identify potential hazards and provides guidance to both contracted and private carriers. In addition, a monthly safety communication is distributed through the marine and truck transportation networks, highlighting relevant issues and risk mitigation actions;

- Orica Chemicals conducts bulk delivery audits at customer sites where dangerous goods are delivered, carrier audits, toll manufacturing audits and third party warehousing assessments; and
- Orica Chemicals has developed the CoDé System[®] to safely track the contents of an Orica trailer from the point of supply to the delivery point. Read more in our case study A New Tanker CoDe System (page 56).

Transport & Driver Safety

Driving vehicles is one of the most significant risks faced by many of our employees and contractors. We aim to prevent accidents arising from the use of vehicles (including cars, vans, trucks, motor bikes, scooters and bicycles) by any employee or contractor who drives a Company owned or leased vehicle, or drives a privately owned vehicle on Company business on a regular basis. Our Model Procedure on Driver Safety stipulates a range of mandatory requirements including the provision and use of seat belts, driver safety training and the registration, licencing, insurance and road-worthiness of all Company vehicles.

Examples of our activities in 2011 include:

- Minova enhanced driver safety at their North American chemical sites with the introduction of accordion flatbed trailers, reducing the risks associated with truck drivers climbing on the flatbed to cover their loaded product;
- OMS established the Explosives Transport Expert Panel which covers packaged and bulk explosives. Read more about Expert Panels in Process Safety (page 64); and
- A transport and driver safety program for all OMS bulk operations (heavy and light vehicles) was rolled out across Australia and Asia.

End of Product Life

Advice is provided on the safe disposal of our products where appropriate. This advice is provided on the label, the MSDS or directly to the customer. Life cycle assessments have been conducted on chlorine manufacture, ammonium nitrate production and on a novel process, called ONYX, to purify used oil for use in emulsion manufacture. Actions arising from these assessments are a key input to our product and marketing strategies and our business product stewardship plans. Read more about Project ONYX in our case study ONYX Technology (page 49).

Many OMS products are consumed on detonation. We work with mine sites to minimise the volume of product that is not consumed in blasting (i.e. initiating systems components such as plastic tubing, electric wire and blocks). Remnant lead wire and plastic is often crushed during the digging, crushing and milling process. In waste mining, the tiny proportions of remaining lead wires and tubes are buried within waste dumps.

Misfired product is identified and managed on sites on a blast-by-blast basis. For safety reasons, all efforts are made to retrieve and neutralise misfired product.

Orica, through the Australian Explosives Industry Safety Group (AEISG), has developed a Code of Practice for minimisation of nitrogen oxides during blasting. This document has been shared with the Queensland Competent Authority and is available through the AEISG website. Read more about our work with AEISG and other associations in Participation & Commitments (page 39). Read the AEISG Code of Practice by visiting http://www.aeiscg.org.au/images/stories/aeiscg_cop_nox_edition_02aug2011.pdf.

Value Chain Engagement

Our sustainability challenges are complex. We continue to work with others to identify and implement opportunities for improvement throughout the supply chain. In support of this collaborative approach, our Safety, Health and Environment (SH&E) Policy states that we will:

- Continue to seek ways to efficiently use materials and energy; and
- Seek to develop new or improved products and processes to improve the contribution we make to the quality of people's lives and to minimise the impact on the environment.

Read our SH&E Policy by visiting

http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

Research & Development (R&D)

Orica invests more than any other player in the industry in R&D, both at our own sites and through collaborative research and development arrangements with over a dozen universities and research bodies internationally.

This commitment to ongoing innovation gives Orica clear market leadership in product development and services. The investment also creates significant returns. Through the development of market leading technologies, Orica has improved the efficiency, productivity and safety of our customers' operations.

Orica Mining Services (OMS) R&D centres operate in:

- Brownsburg and Watkins, North America;
- Gyttop, Sweden;
- Troisdorf, Germany;
- Capricorn Park, Africa;
- Gomia, India; and
- Kurri Kurri, Australia.

Minova R&D centres operate in:

- Bowerston, Ohio, USA - Steel Innovation and Technology Centre;
- Essen, Germany - Global Centre of Excellence for Injection Chemicals; and
- Siemianowice, Poland - Global Centres of Excellence for Cementitious Grouts and Resin Anchors.

Examples of our activities in 2011 include:

- OMS partnered with the Indian Institute of Technology, Bombay, and Monash University, Australia, to sponsor a world-leading research academy. Read more in our case study University Partnership in India (page 121);
- In 2010, Orica entered into a landmark strategic research alliance in Australia with the Commonwealth Scientific and Industrial Research Organisation (CSIRO). The five-year, \$25 million alliance agreement allows Orica to access world-class experts and work collaboratively on R&D projects to exploit new opportunities in adjacent or emerging markets. A number of Orica senior managers sit on the Alliance Steering Committee, managing more than ten active projects; and
- OMS partnered with CSIRO in Australia, and the Canadian Explosives Research Laboratory in Ottawa in joint research programs. In addition, OMS has research programs with the following universities:
 - University of Sydney, Australia;
 - University of Wollongong, Australia;
 - University of South Australia, Australia; and
 - Cambridge University, United Kingdom.

Customers

We work with our customers to mitigate the SH&E impacts of the products we provide. Our Model Procedure on Product Stewardship states that we will "work with customers (and any other people who receive products/services from the business) to ensure the adverse SH&E impacts associated with the distribution, storage, use, recycling and ultimate disposal of products are minimised as far as practicable."

Our approach to working with customers reflects the different risks and opportunities inherent in our businesses.

Orica Mining Services

- The Global Feedback Database, a formal mechanism for capturing complaints and compliments relating to OMS products and services, was rolled out in a third region in 2011; and
- The European Union issued a Directive for the traceability of explosives articles, which impacts OMS as it includes packaged explosives and initiating systems. To allow the industry time to ensure compliance, the European Union has created an amendment to extend the implementation date from April 2012 to October 2013. The amendment will be voted on in late 2011.

Minova

- Minova's newly appointed chief technology officer for North America will partner and collaborate with customers and industry experts to introduce, demonstrate and apply existing and new Minova technology;
- Minova's ultra safe injection resin, Carbomine, is an example of how we engage with customers to establish their business needs as part of the product development process. Read more in our case study Ultra Safe Injection Resin (page 52); and
- High visibility clothing and organic vapour respirators have been introduced to Minova's customer sites in China for use when using injection chemicals underground.

Orica Chemicals

- In response to the mining industry's aspiration to achieve sustainable mine development, Orica has developed ONYX technology, a novel process to replace virgin oil with purified oil in emulsion explosives. This will assist our customers to achieve their sustainability objectives including reducing greenhouse gas emissions. As part of our sustainability plan we will be looking for further ways in which we can play our part in minimising the sustainability impacts of our products throughout the supply chain. Read more about Project ONYX in our case study ONYX Technology (page 49);
- Bulk delivery safety inspections continue at customer sites where hazardous substances are delivered. Significant improvements have been made to this process that we anticipate will provide more robust SH&E outcomes for our customers and third party service providers; and
- Provision of free and paid training for customers of specific products and sharing of information continue to be key ways in which Orica Chemicals influence the SH&E behaviours of our customers.

Suppliers

Our Model Procedure on Product Stewardship requires that "Past SH&E performance, SH&E management practices and commitment to Product Stewardship shall be included in the selection criteria" for:

- Suppliers of goods and services involving significant SH&E risks; and
- Contract manufacturers, warehouses, distributors and agents.

The SH&E performance of our suppliers is periodically reviewed. Suppliers of products and services which involve significant SH&E risks are required to maintain and provide up to date information regarding the hazards and appropriate use of materials, equipment and services purchased by Orica.

For example, Orica's Initiating Systems Expert Panel has launched a new Manufacturing Safety Document regarding the manufacture of cast boosters. OMS procurement personnel who source raw materials for the manufacture of cast boosters have been encouraged to review the document, which is available on the OMS intranet, and take action where necessary to ensure compliance. Read more about Expert Panels in Process Safety (page 64).

Participation & Commitments

Our participation in key industry programs and associations helps us improve our sustainability approach through collaboration and sharing of ideas. These include:

- The International Council of Chemical Associations;
- Responsible Care®;
- Plastics and Chemicals Industries Association;
- Security Sensitive Ammonium Nitrate Principles;
- SAFEX Global Ammonium Nitrate Industry Working Group;
- International Cyanide Management Institute; and
- Other industry associations.

Read more about our public commitments to key sustainability programs in Partnerships & Programs by visiting http://www.orica.com/sustainability/files/2011ProdStew/Orica_Partnerships_&_Programs.pdf.

The International Council of Chemical Associations (ICCA)

The ICCA is the worldwide voice of the chemical industry, representing chemical manufacturers and producers all over the world. The ICCA facilitates the exchange of information between member companies and the development of common positions on policy issues of international significance. Orica is a signatory to the ICCA Global Charter and has adopted their Responsible Care® program.

Read more about the ICCA at www.icca-chem.org and view our certificate by visiting http://www.orica.com/sustainability/files/2011OtherNav/GRI_Report_Application_Levels.pdf.

Responsible Care®

The Responsible Care® program is an initiative of the international chemicals industry aimed at improving its safety, health and environment (SH&E) performance and communicating openly with all sections of the community.

Through the participation of over 50 national chemical manufacturing associations - and through them, thousands of chemical sites around the world - Responsible Care® forms an essential part of ICCA's contribution to the United Nations' Strategic Approach to International Chemicals Management.

As a participant in Australia, New Zealand and Latin America, we are required to sign on to a set of Guiding Principles and to implement the following Codes of Practice:

- Community Right to Know;
- Environment Protection;
- Manufacturing Process Safety;
- Employee Health and Safety;
- Storage and Transport Safety; and
- Product Stewardship.

We have incorporated the commitments of the Guiding Principles and the requirements of the Codes of Practice in our SH&E Management System, which is adopted by all Orica operations. In addition to meeting the commitments and requirements of the program, Orica participates in local community liaison groups, open door programs and SH&E performance surveys.

Read more in SH&E Management (page 59). Read more about Responsible Care® at www.responsiblecare.org and view our certificate by visiting http://www.orica.com/sustainability/files/2011OtherNav/GRI_Report_Application_Levels.pdf.

Plastics and Chemicals Industries Association (PACIA)

We are a member of PACIA, the pre-eminent national body representing Australia's fourth largest manufacturing sector. PACIA members include importers and distributors, raw material suppliers and chemical manufacturers, plastics fabricators and compounders, plastics and chemicals recyclers and service providers to the sector.

Orica's Australian operations are proud signatories of PACIA's Sustainability Leadership Framework. The Framework aims to provide the platform for PACIA to take a leadership role in delivering programs, tools and policy and for members to integrate sustainability into core business.

Orica is represented on PACIA's Sustainability Leadership Implementation Council, which supports the industry in adopting sustainability as a core strategy and positions the industry for the future. Orica is also represented on the Chemicals Council and Trade and Commercial Affairs Council.

In 2011 PACIA and the Environmental Protection Authority Victoria provided assistance to enable Orica Mining Chemicals to complete a life cycle assessment on Project ONYX. Read more in our case study ONYX Technology (page 49).

Read more about PACIA at www.pacia.org.au. Read more about PACIA's Sustainability Leadership Framework by visiting <http://www.pacia.org.au/Content/Framework.aspx>.

Security Sensitive Ammonium Nitrate (SSAN) Principles

In 2004 the Council of Australian Governments (COAG) developed principles regarding the use, manufacture, storage, transport, supply, import and export of SSAN. Under the COAG principles, all ammonium nitrate, ammonium nitrate emulsions and ammonium nitrate mixtures containing greater than 45 per cent ammonium nitrate (excluding Class 1 products and aqueous solutions) have been designated as SSAN and are subject to the COAG Principles and resultant legislative changes.

Based on this definition, Orica's ammonium nitrate prill and all emulsion products are SSAN and each product conforms with the COAG principles and legislative requirements enacted in each state and territory.

Terrorist events in Mumbai and Oslo, in which ammonium nitrate was used in the improvised explosives devices, underscore the need to maintain strict control of this product. In August 2011 regulators in the United States of America and India issued proposed regulations on tightening the control of ammonium nitrate.

Orica believes that the mining and construction sectors need to take a leadership role in diligently managing the handling of SSAN. It is therefore a key requirement that our customers are also committed to complying with all relevant regulations.

We do not supply our explosives products to the munitions industry.

Read more about how Orica Mining Services (OMS) is responding to the SSAN guiding principles by visiting www.oricamining.com/au/en/page/about/ssan.

SAFEX Global Ammonium Nitrate Industry Working Group

Orica is a member of the global Explosives Safety Group, SAFEX. Orica led a global Ammonium Nitrate Industry Group in developing a Code of Best Practice for the storage of ammonium nitrate prill. The document has been published as a SAFEX Good Practice Guide. It was first released at the Ammonium Nitrate Nitric Acid Manufacturers' Conference in September 2010 and subsequently released at the SAFEX XVII Congress in May 2011. The document is now available to all manufacturers and users of ammonium nitrate, regulators, and engineering design companies. The global Industry Group will meet annually to review any new information related to ammonium nitrate and its properties and will update the document as required. Orica is also part of a SAFEX Working Group that is developing a Course on Safety training for new managers within the industry.

OMS is also active in regional explosives safety organisations, among them the Australian Explosives Industry and Safety Group (AEISG), the Institute of Makers of Explosives in the United States of America, the Federation of European Explosives Manufacturers and the Canadian Explosives Safety Group.

Orica took an active role in the creation of the AEISG Code of Practice for the Prevention and Management of Blast Generated Nitrogen Oxide Gases in Surface Blasting. Read the AEISG Code of Practice by visiting http://www.aeisg.org.au/images/stories/aeisg_cop_nox_edition_02aug2011.pdf.

Read more about SAFEX by visiting www.safex-international.org.

International Cyanide Management Institute (ICMI)

The International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (Cyanide Code) is a voluntary industry program for the gold mining industry to:

- Promote responsible management of cyanide used in gold mining;
- Enhance the protection of human health; and
- Reduce the potential for environmental impacts.

The Cyanide Code is administered by the ICMI. Companies that become signatories to the Code must have their operations audited by an independent third party to demonstrate their compliance with the Code. Audit results are made public on the Cyanide Code website to inform stakeholders of the status of cyanide management practices at certified operations.

Orica is a signatory to the Cyanide Code. Following Orica Mining Chemicals' success in being recognised as a "consignor", a new designation which recognises Orica's close relationship and active management of its carriers in the safe handling of the product, Orica has successfully obtained certification of its supply chain in Papua New Guinea, Asia, Africa and South America.

Read more about the Cyanide Code at www.cyanidecode.org.

Other Industry Associations

Orica Watercare is an active member of the following Australian water industry bodies:

- Australian Water Association;
- Australian Water Industry Operators Association; and
- Five cooperative research centres with relevance to the water industry.

Product Safety

We are committed to providing effective products and services that support our customer's safety and health. All of our products are appropriately labelled and supplied with safe handling and use information. We monitor product-related incidents to drive continuous improvement in our supply approach.

Material Safety Data Sheets (MSDS')

For a number of years it has been important that industrial users of all types of materials, including chemicals and blast related products, obtain a MSDS prior to the use of a product. As well, requests for MSDS' from consumer-orientated customers have been steadily increasing.

Although many substances may present potential exposure hazards when used at work or at home, they can be used safely provided the hazards are known and understood and appropriate precautions taken. Underpinning safe use is the provision and communication of adequate information about the substance. MSDS' are a critical part of the information cycle.

Orica's MSDS' are formatted in the internationally recognised 16-point style, and are reviewed and updated when there are changes in product composition or regulatory classification. The impending introduction of the international Globally Harmonised System (GHS) classification system will require an extensive program to review and update the Company's MSDS'. With the announcement of impending GHS-based regulations in Australia, a large amount of preparative work has been undertaken.

Orica is also complying with the new European Union Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) standards regarding expanded MSDS information requirements for products made, or imported into, the European Union.

To obtain a MSDS for an Orica product, refer to the appropriate Orica business websites for contact details. These websites are listed in How We Contribute (page 4).

Product Incidents

Twenty significant (Category 2+) product incidents were reported in 2011 compared with 21 in 2010. Of these, five incidents related to packaging damage and/or spills at customer sites, five occurred during transport from toll manufacturers by rail, five were splashes/exposures at customer sites, three were the result of equipment failure when using Orica product and two were post blasting events at customer mine sites. In all instances, we worked with the customer to resolve the product issue and recommended/advised/implemented process or procedural improvements to mitigate the risk of reoccurrence.

As part of our revised sustainability strategy we have introduced a target for product related incidents. This target is about taking care of our product from cradle to grave - it is about our responsibility throughout the life of our products. Read more in Corporate Targets & Metrics (page 9).

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Emergency Response Service

Orica's Emergency Response Service (ERS) provides telephone advice and assistance to the public, emergency services and others on incidents relating to the transport, storage and use of chemical products and raw materials in emergency situations. The ERS operates 24 hours a day, seven days a week and has over 25 years of experience in the provision of emergency response services to Orica across Australia and New Zealand. Outside of these regions, Orica businesses take direct responsibility for their emergency response. Callers to the service include Orica sites, customers, transport carriers, emergency services, government authorities, hospitals and members of the public.

Orica's ERS is also engaged by over 100 subscribing client companies across a broad range of industries including the agricultural, chemicals and plastics, petrochemical, pharmaceutical, consumer products, transport, manufacturing and construction sectors. In 2011 the ERS responded to 1,896 emergencies, with over 90 per cent of these calls relating to the products and facilities of subscribing client companies.

Emergency calls are answered within approximately 20 seconds. Following extensive initial and ongoing training modules, ERS Coordinators (chemists/engineers) quickly assess the risks associated with the emergency situation by asking appropriately targeted questions, using risk assessment checklists and referring to information databases as required. ERS Coordinators are trained to handle a wide range of incidents from human exposures to transport emergencies. ERS Coordinators provide advice to help the caller establish priorities and rapidly bring the situation under control, while minimising any associated impact. Advice typically includes instructions and guidance relating to:

- First aid, health effects and seeking medical help;
- Product hazards;
- Environmental protection;
- Personal protective equipment;
- Contacting emergency services;
- Evacuation;
- Spill cleanup methods; and
- Crisis management.

ERS Coordinators have immediate access to Material Safety Data Sheets (MSDS'), chemical information databases and contact details for key personnel at client companies. ERS Coordinators typically remain involved in the handling of the incident until the situation is under control, liaising with all involved parties, from emergency services and treating doctors, to obtaining regular updates from the scene and informing client company representatives of progress.

Orica's ERS carries quality certification to ISO 9001:2008, ensuring that the systems and procedures of the service represent best practice and are subject to continuous improvement. The ERS remains a member of the Australian Organisation for Quality Hall of Fame for quality excellence.

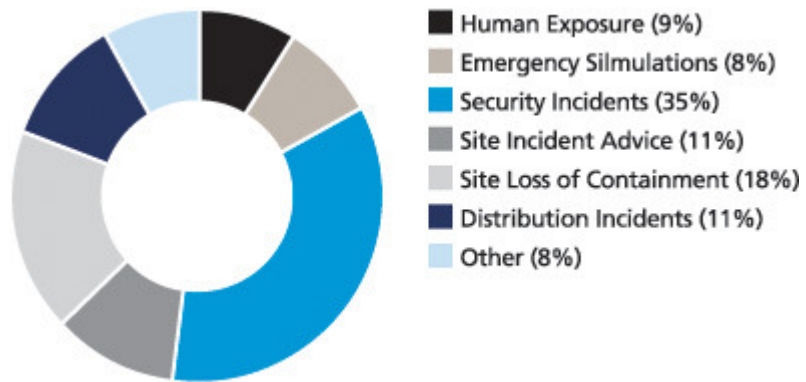
Read more about MSDS' in Product Safety (page 42).

Our Performance in 2011

In 2011 the ERS responded to 178 calls in the Australasian region relating to the Company's products and sites. This compares with 422 calls in 2010. The breakdown of the types of emergency calls is shown in Graph 1. Major trends of note include:

- The significant decrease in incidents handled is due to the demerger of DuluxGroup from Orica in July 2010. In 2010, more than half of the 422 calls pertained to DuluxGroup products. As such, a direct comparison of Orica incidents (excluding DuluxGroup) is 178 calls in 2011 compared to 204 calls in 2010;
- Orica Mining Services related calls decreased by 32 percent in 2011 due to improvements made in false duress alarm notifications that are instigated by trucks; and
- The total number of calls for the Orica Chemicals group increased by 20 percent in 2011. This was due in part to an increase in precautionary calls regarding sodium cyanide. As well, a significant number of calls originated from the Police who were seeking Orica's assistance and expertise in the removal of ammonia cylinders from illegal practices. This was not Orica product.

Types of Emergency Calls



Graph 1.

To date, Orica's ERS has handled almost 29,000 incidents. In 2011 ERS handled an all-time record number of emergency incidents (1,896) when including all external client calls.

Distribution Incidents

A distribution incident is one that does not occur on one of our sites. It arises from the transport or storage of raw materials, products, intermediates or wastes owned by Orica or prior to delivery to the customer.

In 2011 we recorded 30 Category 2+ distribution incidents, compared to 22 in 2010 (refer to Graph 2). Of the 30 incidents, nine involved vehicle rollovers, nine were product losses of containment from ships, railcars or trucks, five were related to unloading product at customer sites and five were vehicle collisions on public roads. There were also seven fatalities of contractors or members of the public in four separate incidents across the globe:

- In India, a light truck, licensed for six but carrying 12 people, travelling on the wrong side of the highway collided head-on with an Orica tanker loaded with emulsion product. Four occupants of the light truck were killed and others were admitted to hospital. The Orica drivers were not injured and the product was safe (when long distances are involved there is often more than one driver on board);
- In Mexico, a contractor's truck loaded with ammonium nitrate prill lost control due to a brake failure. It rolled 20 metres down a steep embankment killing one driver and injuring the other;
- In the United States of America, a car driven by a member of the public drove out from a side road directly into the path of an oncoming contract carrier. The driver of the car was killed; and
- In Tanzania, an Orica passenger vehicle returning to a mine site was involved in a traffic accident in which a young boy ran out onto the road and was struck and killed.

Of the distribution incidents reported, 11 occurred in Australia, seven in North America, five in Latin America, three in Asia, two in New Zealand, and one each in Europe and Africa.

Following reviews of recent serious distribution incidents, extensive improvement programs were identified in all businesses, including:

- The establishment of working groups in each business to implement recommendations (including the new Explosives Transport Expert Panel covering packaged and bulk explosives). Read more about Expert Panels in Process Safety (page 64);
- Improved distribution review criteria across the supply chain;
- Reviewing the selection and ongoing monitoring of key transport contractors and working closely with them to review route risk assessments for road transportation; and
- Sharing cross-platform learning facilitated by the Corporate Group.

Distribution Incidents



Graph 2.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Legacy Issues

We manage legacy issues associated with historical operations at a number of our sites around the world. Increasing attention has been given to recording the history and known contamination of such sites, assessment and management of risks and recording any protective or remediation measures.

Our SH&E Model Procedures state:

- A land dossier shall be compiled and maintained indefinitely under secure document control to record information about known or potential contamination of sites, the assessment of risks and the management of those risks; and
- A responsible manager shall be appointed to manage any significant decommissioning, decontamination and removal projects and/or the remediation of land.

Read more about our SH&E Model Procedures in SH&E Management (page 59).

Examples of our activities in 2011 include:

- Our Groundwater Treatment Plant in Botany, New South Wales, Australia, is operating reliably, successfully treating contaminated groundwater. In 2011, 1,250 million litres of recovered and treated groundwater was distributed to industrial customers at the Botany Industrial Park, replacing the use of potable water;
- Remediation of contaminated soil under a car park at Botany is proceeding well and is expected to be complete in early 2012;
- Orica is waiting on planning approval to allow treatment of contaminated soils at Villawood, New South Wales, Australia;
- The demolition, investigation and clean up at our Seneca, United States of America, is proceeding;
- The clean up of two sites in Norway, Gullaug and Engene, is advancing with removal of old equipment and the disposal of contaminated soils. Investigations and remediation activity are continuing in the warmer months each year; and
- Remediation of Roburite, United Kingdom, is complete.

Botany Transformation Projects

Our Botany site in the inner suburbs of Sydney has received significant community interest due to former operations at the site resulting in contamination of soil and groundwater. Orica regrets the contamination and is committed to implementing a range of remediation projects that address the land and groundwater contamination, and to destroy waste stored at the Botany site. Through ongoing discussion with the community and regulatory authorities, Orica seeks to ensure that planning and delivery of these projects meets the expectations of all stakeholders. Orica greatly values the commitment and contribution that local residents, businesses and the three levels of government have made to the Botany Transformation Projects.

In 2010, a permit was obtained allowing the export of hexachlorobenzene (HCB) waste to Europe for treatment. HCB was produced as a waste by-product in the former solvent and plastic manufacturing plants at the Botany Industrial Park between 1963 and 1991. Shipment of the waste was intended to commence in 2010. However, at the request of the Danish Government, the Australian Government agreed not to act on the approved permit. The Danish Government's request was due to local political reasons, and was not related to compliance with any legal or safety requirement of the permit. The HCB waste continues to be stored safely and securely at Botany while other commercially proven and safe methods for its destruction are investigated.

A mercury remediation project has been halted due to unsatisfactory results from the pilot soil washing program. In conjunction with the regulatory authorities we are assessing alternative approaches to managing the contamination, and in the mean time, the area continues to be enclosed within a sealed shed to contain any vapours.

Updates are communicated in local newspapers including the *Southern Courier* (monthly) and the *St George and Sutherland Shire Leader* (quarterly). Regular newsletters are provided to the local area and workshops are held to seek community input. We have also produced a comprehensive suite of fact sheets, which are designed to provide the community with simple and easy to understand information on the environmental science and technology involved in the project. We have a toll-free Orica Community Hotline that enables the community to seek further information about the remediation projects at Botany.

The Orica Board receives regular updates on the progress of works and stakeholder engagement at our key legacy sites including Botany.

Read more about our Botany Transformation Projects by visiting www.oricabotanytransformation.com. Read more in Community Engagement (page 111).

Product Stewardship

Case Studies

2011

Case Study: ONYX Technology

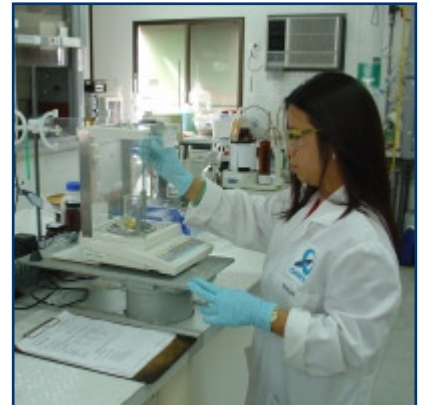
Orica Mining Chemicals Deer Park, Australia

Orica Mining Chemicals has developed a process to use recycled oil in the production of ammonium nitrate emulsion (ANE) explosives products.

Orica has recently completed an extensive research and development project, spanning two years, which has focused on potential opportunities to introduce more sustainable raw materials into ANE explosives products. The result of this project is a new process called ONYX. ONYX purifies used oils so they can replace virgin oils in emulsifiers, fuel blends and process fuels, which are components of ANE explosives.

A key aspect of the project was to prove that the substitution of virgin oil with recycled oil in the production of ANE explosives is less harmful to the environment. A life cycle assessment (LCA) conducted by consultant group ARUP, with funding from the Plastics and Chemicals Industry Association and Victoria's Environment Protection Authority through the Rewards program, enabled Orica to quantify the environmental benefit associated with Project ONYX. Significant reductions in key environmental indicators, such as greenhouse gas emissions, energy consumption and non-renewable resource depletion, have been demonstrated. In one year of emulsifier production at Deer Park, these savings equate to:

- Removing 232 average Australian cars off the road each year;
- Reducing annual energy consumption equivalent to that consumed by 684 Australians; and
- Avoiding the burning of 112 tonnes of brown coal.



Phuong Truong conducts quality control testing on ONYX oil in the Orica specialty emulsifiers laboratory at Deer Park.



Manuel Concepcion monitoring ONYX oil production at the Deer Park emulsifiers plant.

The LCA identified that these benefits would multiply significantly as more ONYX purified oil is used in place of virgin oil in fuel blend and process fuel. According to Aaron Yuen, Sustainability Consultant at ARUP, "the LCA was peer reviewed and conducted in accordance with ISO standards, so it provides a sound basis for Orica to assert the environmental benefits of ONYX based products".

ONYX technology is a great example of Orica's sustainability framework, Safety, Health & Environment (SH&E) Policy and Deliver the Promise culture in action.

The prospects for this new development are exciting as it has the potential to deliver sustainability benefits to both Orica, and to our customers.

Waste oil management is an important activity on mine sites and ONYX can be used to respond to this customer need. Modular ONYX technology can be deployed at mine sites to recycle waste oil back into ANE explosives. This innovative, closed loop solution will generate cost savings and sustainability benefits for the mine, transforming a waste management problem into a valuable raw material.

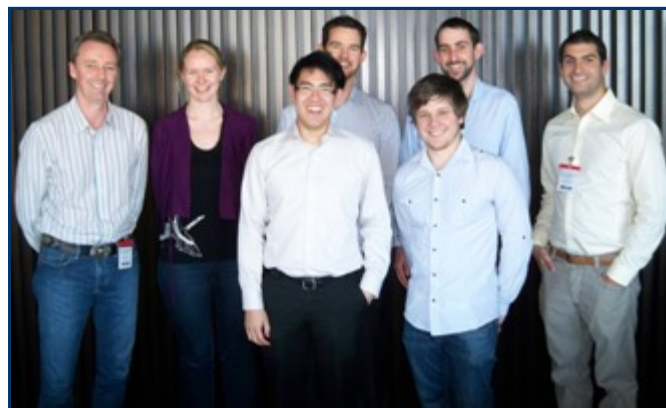
Project ONYX is an example where Orica technology has been used to produce a reliable, environmentally beneficial, fit for purpose and cost effective product. Liam Thomas, Orica iron ore project manager says, "Oil recycling technology has enhanced our value proposition by offering reduced costs and sustainability advantages. The benefits of the technology have been a key contributor to securing contracts with major Pilbara customers".



Orica Mining Services delivers ONYX based ANE explosives into blastholes during trials in the Hunter Valley.

Tony Palmer, ONYX project manager adds, "Completing the LCA on Project ONYX has enabled Orica to quantify sustainability benefits that can be shared with customers. We anticipate doing this via an annual statement that certifies greenhouse gas reductions through the use of ONYX based products". An ability to verify sustainability benefits is a key point of differentiation that can be leveraged for competitive advantage.

Planning is underway to implement ONYX technology with customers around the globe during 2012.



The Project ONYX Team.

Left to right back: Tony Palmer, Laura Hubbard, Rob Turk, Stephen Currie and Albert Chemali.
Left to right front: Aaron Yuen and Andrew Blake.

Case Study: More Sustainable Detergents

Orica Chemicals New Zealand

Orica Chemicals New Zealand has developed more environmentally friendly membrane detergents.

Membrane detergents are specific to industrial applications. Orica Chemicals new detergent technology reduces the environmental risks associated with using traditional detergent ingredients.

Orica's EXCEED detergent is biodegradable and eliminates the use of EDTA (Ethylene Diamine Tetra Acetic Acid). EDTA's use in household detergents and industrial applications in Europe has become increasingly restricted due to its slow biodegradability and its potential to mobilise heavy metals from river sediments.

Orica's ECO8 is a concentrated membrane detergent additive to aid in removal of soils in the caustic cleaning cycle. The new product does not contain alkyl phenol ethoxylates, a traditional detergent ingredient that breaks down into alkyl phenols and affects the reproductive systems of aquatic organisms.

EXCEED and ECO8 are examples of Orica's commitment to sustainable products and technologies.



Alice Makardij, technical consultant,
monitoring the plant.

Case Study: Ultra Safe Injection Resin

Minova Australia

Minova Australia's new "Ultra Safe" Injection Resin is providing safety and productivity benefits for the Australian coal mining industry.

In coordination with Minova's global centre of excellence for injection chemicals in Europe; "Carbomine" has been developed specifically for Australian underground coal mining.

Carbomine is a low-temperature sealing solution, which means it reacts to form an effective seal at temperatures of less than 40°C. The resin penetrates the mining cavity and provides a very effective seal, as was demonstrated at Donaldson Coal's Tasman Mine in New South Wales this year. Carbomine was used as a precautionary sealing measure to prevent fire in the high-temperature underground system. No phenols or formaldehyde were detected during the application.

Tom Meikle, Minova Australia business development manager, says that the first application went as well as could be expected. He was especially pleased at the low system pressures observed during application, and, leaking product temperature observed through a thermal imager of less than 20°C.

Tasman mine site manager, Keith Falconer, stated that "the product proved itself to be an ideal low temperature sealing solution".

This application was completed by experienced personnel from Minova's New South Wales operations and technology teams. Carbomine application equipment can also be used for pumping Minova's Carbofill cavity filling foam, ensuring substantial time saving in the set up for applications requiring both products.

Carbomine is now commercially available in Australia and all enquiries should be directed to Minova Operations in Queensland and New South Wales. Contact details can be found by visiting www.minovainternational.com.

Case Study: Minova's New Bolting System

Minova Kazakhstan

Minova Kazakhstan is producing new bolting systems to meet international standards and improve safety.

A new bolt production line has been commissioned to produce different types of bolts made from locally sourced reinforcing steel. The new production line makes the bolts less expensive and more attractive for mining customers.

The new bolting systems have a higher tensile strength, significantly improving the roof support quality of roadways, increasing workplace safety and reducing labour input. The new forged head bolts are sold to hard rock mines that produce copper, zinc and iron ore. Within a short period since commissioning, monthly sales volume has increased significantly, demonstrating the value they provide to our customers.



The new bolts with forged heads.

Case Study: Watercare's Green Ribbon

Orica Chemicals North America

Orica Watercare has been awarded the prestigious "Green Ribbon for Sustainability" by an international leader in the water industry, the American Water Works Association (AWWA).



Orica Watercare was selected as one of only 28 "Green" companies by the American Water Works Association at the Annual Conference and Exhibition, one of the largest drinking water industry trade shows, recently held in Washington, DC. Orica Watercare was required to fulfil several strict requirements to qualify for the Green Ribbon award, which demonstrates the Company's ongoing commitment to environmental awareness.



This was a prominent award for Orica Watercare, because AWWA is an authoritative resource in the water industry with a mission to provide safe and sufficient water for all.

"As the primary stewards of our most precious natural resources, water professionals are among the original environmentalists," said AWWA executive director David LaFrance. "Companies that earn our Green Ribbon designation demonstrate a serious interest in promoting smart, sustainable practices that lead to a better tomorrow."

Through collective leadership, AWWA advances technology, education, science, management, and government policies.

Orica Watercare was recognized for two sustainable equipment options, the ENviroPak™ System for nitrate removal from drinking water sources and the EcoRegen™ ultra low-waste regeneration system.

The Ultra Low Waste ENviroPak™ System. The ENviroPak™ System is a low waste ion exchange process. It is a more sustainable solution for nitrate removal because it generates significantly lower volumes of waste compared with other nitrate removal technologies, at less than 0.5 percent of the treated water flow. Water that is high in nitrates can cause illness to humans or animals that drink it.

The EcoRegen™ System further complements the low carbon footprint of Orica's MIEX® Process by recycling up to 70 percent of the salty "brine" solution, minimizing the volume of waste, salt discharge and salt consumption. This improvement provides resource efficiency benefits and reducing the salinity of effluent discharge. The EcoRegen™ System reinforces the low ecological impact of our MIEX® Process, a resin that is used to remove contaminants from water and waste water streams.

Orica Watercare aims to meet the needs of customers and the community in a sustainable manner and is eager to continue with progressive technology and furthering sustainability efforts with new and existing products.



Orica Watercare's EcoRegen™ System in action.

Read more about Orica Watercare and MIEX® at www.miexresin.com.

Case Study: Going Clear in NZ

Orica Chemicals New Zealand



Orica Chemicals New Zealand showcased their innovative green product, GoClear, at the Green Chemistry Expo in Tauranga, New Zealand this year.

GoClear is a urea-based diesel exhaust system additive that reduces nitrogen oxide (NO_x) emissions by breaking down the NO_x into harmless components of water vapour and nitrogen gas. Under Euro 5 Emission Standards, from the 1st of January 2011, all new and used trucks coming into New Zealand must meet certain emission requirements. By using 5 litres of GoClear per 100 litres of diesel, trucks can "clean" their exhaust gases of NO_x. The GoClear product, stored in a separate tank in the engine bay, is injected into the exhaust stream after the diesel has been combusted.

The increasing focus on sustainability and responsible care in the chemical industry, coupled with the known negative human health and environmental impacts of NO_x, make GoClear an exciting technology development. Negative health impacts include asthma, emphysema, damage to lung tissues and lowering resistance to infections. Negative environmental impacts include ground level ozone and smog, acidizing lakes and streams, and causing oxygen depletion in certain water bodies. Being able to significantly reduce NO_x emissions from diesel trucks will therefore benefit both society and the environment.

The Green Chemistry Expo was targeted at the general public. It aimed to educate the community about green chemistry initiatives being developed in New Zealand, and was held in conjunction with the 2011 International Year of Chemistry.

Read more about GoClear by visiting <http://orica.co.nz/?page=81>.

Case Study: A New Tanker CoDe System

Orica Chemicals New Zealand

Orica Chemicals has a determined commitment to continuously improving safety, both at our own sites and in the safe distribution and delivery of our products.

This commitment has led to the development of the "CoDé System[®]". The CoDé System[®] is designed to track the contents in Orica tankers from the point of loading to the point of delivery. Many Orica Chemicals' products are distributed in tankers that contain multiple trailer compartments. Each compartment can contain a different product, so ensuring the right product is delivered to the right tank at the customer site is extremely important.

The CoDé System[®] compares the contents of the trailer compartments with any contents already stored in the tank at the point of delivery. If the contents match, a delivery can occur. If they do not match, the trailer compartment is automatically locked out and the delivery cannot occur.

The CoDé System[®] is all about making the Correct Delivery, every time!

All Orica Chemicals New Zealand tanker drivers were trained in the new system this year, and their tankers were fitted with the System when training was complete.



An Orica Tanker.

Read more about the CoDé System[®] by visiting <http://orica.co.nz/?page=83>.

Safety, Health & Environment 2011

Overview

Our revised sustainability strategy includes a strong focus on safety, health and environment (SH&E). Read more in Our Sustainability Strategy (page 3).

We strive to achieve our goal of no injuries to anyone, ever. While our definition of sustainability has broadened, Orica maintains the aspiration to become a business that does no harm to people and the environment. To us this means a transition to becoming:



Carbon neutral - No net generation of greenhouse gases to the atmosphere;



Water neutral - No net consumption of potable water;



Zero waste - No net generation of waste to landfill and requires innovative ways to prevent, reduce, reuse and recycle by-product streams; and



Environmentally friendly operations, products and services - No unintended consequences to the environment and the community;

... in a commercially responsible way.

To meet our SH&E commitments we have in place:

- Equipment and materials that are designed and maintained fit for purpose;
- Well communicated principles and behaviours that promote continuous SH&E performance improvement through leadership and personal responsibility; and
- A SH&E management system that describes systems of work that ensures the integrity of equipment, materials and people-based control measures are sustained.

Central to our approach is that:

- SH&E is a line management responsibility. Ownership and accountability for SH&E performance is embedded in all levels of management;
- There is a consistent risk-based approach to SH&E management. Resources are allocated and activities prioritised on the basis of risk, with particular focus on high severity, low probability events;
- Appropriate training is in place to equip all personnel to carry out their tasks so as to take care of themselves and others;
- Our SH&E Management System and Basis of Safety Programs are effectively implemented;
- SH&E key performance indicators are set and achieved;
- SH&E incidents are effectively reported and followed-up;
- Efforts to improve our SH&E performance are recognised; and
- Product life cycle studies are undertaken to ensure that SH&E risks are assessed and minimised (as far as practicable).

Read more in SH&E Management (page 59) our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

Orica's Group Executive and the corporate SH&E manager provide SH&E leadership. The Group Executive is a forum for strategy development as well as for SH&E governance of the Company. The corporate SH&E manager, business SH&E managers and site SH&E personnel provide advice and support to line managers. Orica's SH&E Managers' Team ensures the most effective use of resources by sharing best practice and standardising, streamlining and coordinating SH&E activities across the Company and its subsidiaries.

SH&E Management

At Orica we believe that all work related injuries, illnesses and environmental incidents are preventable. We have systems and processes in place to manage and reduce safety, health and environment (SH&E) risks.

SH&E Management System

Our SH&E Management System has been developed to manage the interaction between people and the work environment. We have developed a hierarchy of documents that define our approach. These include our:

- SH&E Policy and Our Aspiration;
- SH&E Standards;
- SH&E Model Procedures; and
- Local Operating Procedures.

SH&E Policy & Our Aspiration

Our SH&E Policy describes our commitment to people and the environment. Read our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

We aspire to become a business that does no harm to people and the environment. This means a transition to becoming:

- Carbon neutral - No net generation of greenhouse gases to the atmosphere;
- Water neutral - No net consumption of potable water;
- Zero waste - No net generation of waste to landfill and requires innovative ways to prevent, reduce, reuse and recycle by-product streams; and
- Environmentally friendly operations, products and services - That have no unintended consequences to the environment and the community

... in a commercially responsible way.

SH&E Standards

Our 19 Group SH&E Standards provide the benchmark for performance in our organisation. They are:

- SH&E Commitment;
- Management & Resources;
- Communication & Consultation;
- Selection & Training;
- Material Hazards;
- Acquisitions & Divestments;
- New Plant, Equipment & Process Design;
- Management of Change;
- SH&E Assurance;
- Systems of Work;
- Emergency Plans;
- Contractors & Suppliers;
- Environmental Impact;
- Resource Conservation;
- Waste Management;
- Soil & Groundwater Protection;
- Product Stewardship;
- SH&E Performance & Reporting; and
- Auditing.

Our SH&E Model Procedures provide further detail on how the SH&E Standards must be applied.

Read more about our SH&E Standards by visiting http://www.orica.com/sustainability/files/2011SHE/Orica_SH&E_Standards.pdf.

SH&E Model Procedures

Our SH&E Model Procedures describe the requirements for controlling the risks of the activities the Company is exposed to. These procedures sometimes require customisation to meet local needs, widespread training of personnel and in-depth internal and external auditing. Compliance with the key requirements of our SH&E Model Procedures is mandatory for all businesses unless formal exemption is granted by the corporate SH&E manager.

Orica's SH&E Model Procedures have underpinned the Company's SH&E Management System for almost 20 years.

Local Operating Procedures

The requirements of the SH&E Model Procedures are followed through local operating procedures. Systematic training programs, including competency-based training, are developed and implemented to assist employees and contractors to carry out their tasks safely.

Orica managers, employees and contractors are signatories to our SH&E Charter, which details what is expected of them and also what they can expect from Orica in providing a safe and environmentally responsible workplace.

Read our SH&E Charter by visiting http://www.orica.com/sustainability/files/2011SHE/Orica_SH&E_Charter.pdf.

Review & Improvement

The suitability, adequacy and effectiveness of our SH&E Policy, Standards, Model Procedures and local SH&E management systems are reviewed on an ongoing basis.

Our SH&E Management System is continually developed to reflect changes in reference documents (including legislation), lessons learned from incidents (both within and external to Orica), new best practices, benchmarking studies, employee feedback and management reviews. In accordance with our SH&E Model Procedures, all sites and businesses prepare an annual Letter of Assurance that details the level of compliance with each of the SH&E Standards and actions plans to close any gaps. Read more about our Letter of Assurance process under Due Diligence in Governance at Orica (page 19).

In 2011 we continued our major upgrade project to simplify and globalise the SH&E Model Procedures while retaining their underlying intent. To date, we have upgraded procedures covering Permit to Work, Risk Management Processes, Plant and Equipment Integrity, Fitness for Work, Traffic Management and Safe Operations. We aim to complete the upgrade in 2012.

Key SH&E Processes

Risk Management

Our SH&E Model Procedures require "ongoing systematic identification, assessment and management of SH&E risks associated with the Company's activities, products and services" including:

- New facilities and equipment;
- Physical security risk assessment;
- New products and services;
- Job design and unusual activities; and
- Performance of individual tasks.

We aim to identify and focus attention on critical risk control measures such as design verification, training, scheduled inspection, testing and/or replacement, auditing and management of change. Critical risk control measures are typically those which:

- Protect against major incidents; and
- Could be prone to loss of integrity.

Orica businesses are required to prioritise their implementation of the SH&E Model Procedures based on a risk profile of their activities. As a result the highest risks are addressed first. It is a long-term goal to achieve and sustain compliance with the key requirements of all the applicable SH&E Model Procedures.

SH&E Leadership Training

All staff in leadership positions are expected to complete a SH&E Leadership course every four years. It is expected that all new managers, whether they are new to the Company or are those moving into new senior

manager/leadership roles, attend SH&E Leadership Training within the first year of appointment. These courses aim to explore and develop the leadership characteristics of SH&E within the various roles, as opposed to focusing solely on the technical aspects of SH&E. The modules are not intended to replace the business/site specific responsibility to train people in the necessary, day-to-day aspects of SH&E.

Site managers are expected to periodically undergo a facilitated Site Manager's SH&E Competency Development activity, including preparation of a development plan.

Incident Management

Our Incident Management and Corrective Action SH&E Model Procedure defines our requirements for the immediate action, classification, investigation and reporting of SH&E and physical security incidents.

New employees receive induction training covering their responsibility for reporting incidents, injuries and illnesses. As appropriate, employees also receive training covering statutory requirements. Sufficient people are trained in root cause analysis to participate in incident investigation teams.

We maintain a comprehensive incident reporting database for reporting all incidents globally. The database contains investigation reports, root cause analyses and a system for creating and managing corrective actions.

Due Diligence

Our SH&E due diligence processes are a vital part of our compliance assurance approach. Read more under Due Diligence in Governance at Orica (page 19).

Personal Safety

Personal Safety is protection of the individual from physical harm caused by undertaking an activity. Personal Safety incidents usually result in injury to just one person. Examples include slips, trips and falls, manual handling injuries, cuts, crushes and electric shocks.

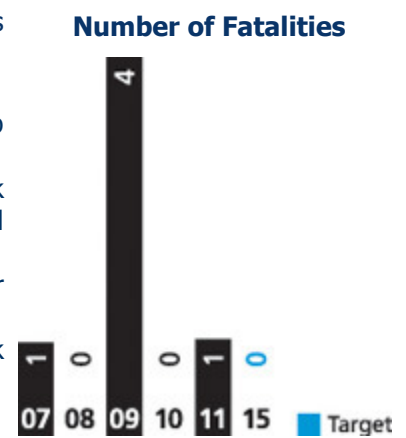
Fatalities

Sadly there was one fatality associated with our operations this year. At our Minova business in Ningxia, China an employee died and another was seriously injured in a road traffic accident while travelling to a customer site for a product trial. We continue to implement the lessons learned from this and previous incidents and near misses to reduce the risk to our employees and contractors.

We recognise that improvement must continue as we work towards our SH&E Policy aspiration of no injuries to anyone, ever. Read our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

This year we consolidated the implementation of the key learnings identified as a result of previous fatalities. These included:

- Improvement in the overall quality of safety awareness and leadership across all levels of the organisation;
- Robust implementation of Job Safety and Environmental Risk Assessments (JSERA) as the basic risk assessment tool across all businesses and new acquisitions;
- Working across the supply chain both internally and with our contractors to improve the distribution safety of our products; and
- Giving people the necessary mix of training and coaching to assess risk and develop a culture where risk assessment is a way of life.



Graph 3.

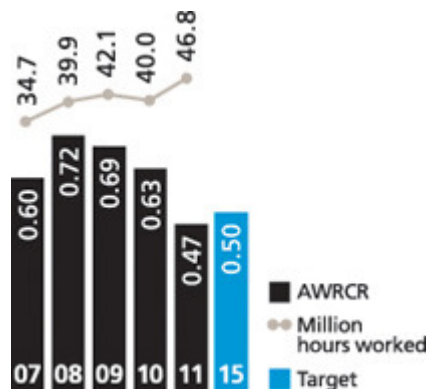
There have been 17 fatalities of Orica employees and contractors since Orica was established in 1997; six have occurred since 2007 (refer to Graph 3).

Injuries & Illnesses

In 2011 we achieved our lowest ever All Worker Recordable Case Rate (AWRCR) of 0.47 compared to 0.63 in 2010 (refer to Graph 4). Our AWRCR is the number of recordable cases (using Occupational Safety and Health Administration (USA) guidelines) per 200,000 hours worked by employees and contractors. Our rate is very good when benchmarked with other global companies across the mining, oil and gas, and chemicals sector.

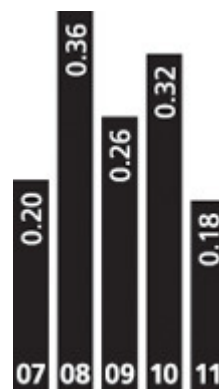
A similar decrease was reflected in our Lost Work Day Case Rate (LWDCR), which is a sub-set of our AWRCR (refer to Graph 4). Our LWDCR measures the number of lost work day cases per 200,000 hours worked by employees and contractors. In 2011 our rate was 0.18 compared to 0.32 in 2010.

All Worker Recordable Case Rate



Graph 4.

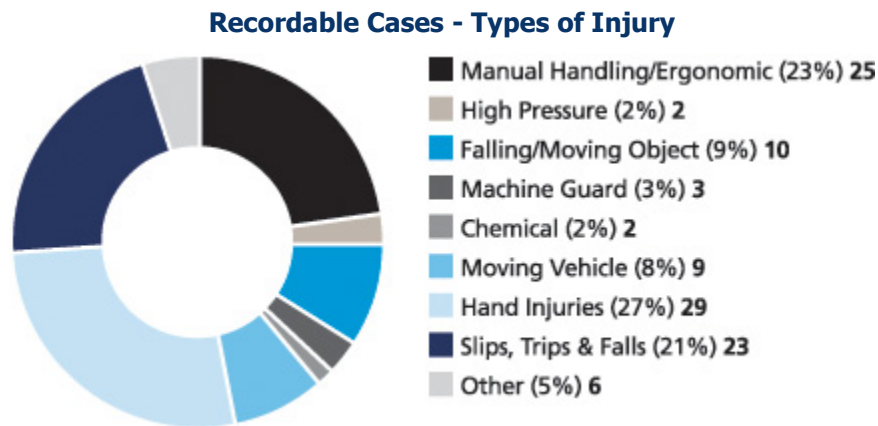
Lost Work Day Case Rate



Graph 5.

The majority of incidents were categorised as:

- Hand injuries (27 percent) caused by placing arms/fingers in the "line of fire" or by using tools without proper hand protection;
- Sprains and strains from manual handling and ergonomic exposures (23 percent); and
- Slips, trips and falls (21 percent) (refer to Graph 6).



Graph 6.

At an individual business level:

- Orica Mining Services' (OMS) AWRCR decreased from 0.40 in 2010 to 0.30 in 2011. OMS has continued its strong focus on the reporting and analysis of Near Miss Fatalities and Process Safety incidents, particularly in underground, on-bench and blast related events in light of historical fatalities, and continued with the "Take 5" safety program globally;
- Minova's performance improved, with a AWRCR of 1.96 compared to 2.45 in 2010. Most of the incidents were sprains, strains and thermal burns in the bolt and resin manufacturing operations and in field operations during the application and injection of resin on customer underground sites; and
- Orica Chemicals' performance improved slightly with AWRCR decreasing from 0.58 in 2010 to 0.52 in 2011.

Although the AWRCR has been trending downwards in recent years, the overall severity and type of incidents has remained fairly static.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Severity Ratio Index

The use of AWRCR as a safety metric is limited by its inability to differentiate between injury severities. For recording purposes, a relatively minor recordable injury is treated the same as an extremely serious injury. For this reason, we have created and introduced a Severity Ratio Index into the targets. In this sliding scale index, more significant weighting (a higher score) is given to serious injuries and less to minor injuries. Use of the index will help us focus on the more serious injury events to reduce the likelihood of recurrences.

In 2011 the Severity Ratio Index was 4.32. Read more in Corporate Metrics & Targets (page 9).

Process Safety

Process Safety is management of the "chemical process" and hazardous materials to prevent fires, explosions and toxic releases. Process Safety incidents have the potential to result in multiple injuries or fatalities and/or major equipment damage.

Process Safety is most relevant to our Orica Mining Services and Orica Chemicals groups where we operate a number of hazardous chemical processes and plants. Both businesses have process safety advisor roles in place, reporting to the respective group SH&E/sustainability manager. The remit of these roles is to guide the development and maintenance of systems that are the foundation of Process Safety. Our larger sites also have specialist engineers, often with a process or risk focus, in place. Each business also continues to refine its own system for performance measurement and monitoring.

Process Safety Incidents

A Process Safety incident is one that would typically involve the failure of a key control measure that may lead to an actual, or potential, major consequence event such as a loss of containment, environmental discharge or significant injury.

In 2011 we recorded 70 significant Process Safety-related incidents compared with 62 in 2010. The increase is in part due to better awareness and understanding, and in turn, reporting of such events. Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

The two most notable 2011 incidents were a fire at Minden, United States of America, and an airborne discharge of sodium chromate containing hexavalent chromium from Kooragang Island's ammonia plant in New South Wales, Australia.

At Minden, an explosives manufacturing plant, a process building was destroyed by fire. Fortunately no explosive detonation resulted and no injuries occurred. The fire was caused by an unexpected chemical reaction in one of the explosive products during its manufacture.

At Kooragang Island, an amount of sodium chromate containing hexavalent chromium was released, traces of which were found in northern parts of the adjacent Stockton neighbourhood. Read more in Community Engagement (page 111).

Expert Panels

We have established Expert Panels to manage our most critical Process Safety risks. The responsibilities of the Panels are to:

- Detail the Basis of Safety on which the processes should be designed and operated. This relates to the prevention of major incidents such as fires, explosions, toxic gas releases and fatal incidents and involves:
 - The identification of major hazards; and
 - Incorporating the knowledge in safety-related processes and communications;
- Define the Critical Model Procedures which must be fully implemented for a particular technology;
- Authorise any major process changes;
- Audit compliance with Expert Panel mandated standards;
- Develop the technology-specific engineering standards which must be applied;
- Review the process safety sustenance capital requirements and sign-off that these are adequate to maintain integrity; and
- Approve major projects from a process safety perspective.

We currently have Expert Panels in place to focus on Ammonia, Ammonium Nitrate (including nitric acid), ChlorAlkali (i.e. chlorine), Explosives, Initiating Systems, Surface Mining Applications; and Underground Safety. In 2011 we established the Explosives Transport Expert Panel covering packaged and bulk explosives across the supply chain.

Hazard Studies

Hazard Studies are an important project activity to ensure inherent safety is designed into new process plants. The studies identify potential hazards and determine the most appropriate means for managing these, including hazard elimination if possible. Orica has a six stage Hazard Study process which covers the project from feasibility stage through to commissioning and final operation.

Periodic Hazard Studies evaluate process safety hazards over the operating life of our process plants. The studies, done on a five-yearly cycle, assess the cumulative impacts of plant changes, incorporate learnings from relevant internal and external incidents and review any developments in process technology and engineering standards. The studies are designed to ensure the process plants remain safe across many years of operation.

Product Safety

The SH&E performance of our products is also a key focus for Orica. Material Safety Data Sheets are available for all of our purchased products.

Read more in Product Safety (page 42).

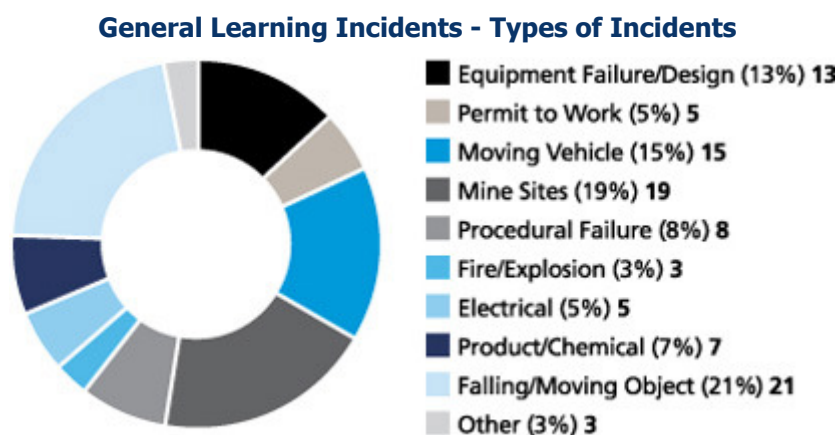
Learning Incidents

At Orica we recognise the importance of learning from incidents to prevent them occurring again, elsewhere or again with a worse outcome. This means we foster a culture of incident reporting and investigation, with emphasis on "near miss" events that represent opportunities for us to learn and improve our safety, health and environmental (SH&E) performance.

There were 99 major learning events across the Company in 2011, compared with 133 in 2010.

Analysis of the different types shows the year-on-year trend has remained largely static over the past six years, where the majority of incidents involved falling/moving objects (21 percent), moving vehicles or forklifts on sites (15 percent), equipment failure/design (13 percent) and procedural failure (8 percent) (refer to Graph 7). A large number of incidents also occurred on mine sites (19 per cent), involving misfires, unauthorised movement of vehicles into blast areas or flyrock extending from the blast area.

The continued focus on the reporting and investigation of General Learning Incidents, together with Near Miss Fatalities and Process Safety incidents, provides us with the opportunity to prevent potential injuries and other adverse events going forward.



Graph 7.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Near Miss Fatalities (NMF)

For three years now we have been internally reporting NMFs. These are events, which in the absence of any further safeguards, could have resulted in a fatality. Once a NMF occurs, the local site or business is expected to summarise the event and key learnings into a report which is then shared across the company. The NMF reporting is therefore used as an "early warning system" - we can identify and share information on situations that are more likely to lead to a fatality.

In 2011, Orica reported 91 NMF. Read more in Corporate Targets & Metrics (page 9).

External Events

Orica monitors safety incidents within industries where we operate, but also those industries operating in other high hazard environments e.g. nuclear, aviation and construction. Orica maintains networks of contacts across a range of companies and industry organisations. These activities allow integration of incident lessons learned into our own organisation as well as the contribution of Orica expertise into relevant external organisations.

Occupational Health

Our occupational health strategy aims to:

- Control exposure to hazardous agents and working environments;
- Ensure fitness for work, including fatigue management and travel health; and
- Support health and wellbeing, including rehabilitation of employees with work related injuries or illnesses.

Fatigue Related Accidents

Fatigue is one of Orica's greatest health hazards, and importantly, is controllable. Therefore our new Corporate Targets & Metrics include a focus on fatigue related accidents.

In 2010, nine accidents were related to fatigue, seven of which related to driving. While no serious injuries resulted from any of these incidents, there were cases where damage was caused to Orica vehicles. In 2011, ten of the 11 fatigue related accidents related to driving.

Read more in Corporate Targets & Metrics (page 9).

Fitness For Work

Our Fitness For Work program offers a range of measures to ensure our employees' ongoing fitness for work, including:

- Health surveillance and monitoring programs;
- Pre-placement and work transfer medical reviews;
- Fatigue risk management;
- Drugs and alcohol management; and
- Recording, analysis and management of absences and sick leave.

Health Promotion

Orica's health promotion activities take into account health issues in different countries, the size and nature of sites and businesses, individual needs and the needs of work groups. The Company's intranet provides employees with access to health information from reputable sources.

We have education, training, counselling, prevention and risk-control programs in place regarding serious diseases. For example:

- Free HIV Aids testing and education is offered to our employees in Zimbabwe; and
- Enhanced safety rules and advice for travelling employees.

Psychological Health

We offer a management training package that aims to reduce personal stress and addresses issues that our employees may have in balancing work, social activities and commitments. Advice on stress minimisation is also provided to individuals. Where Employee Assistance Programs are available, free access is provided to employees and their immediate family members.

Rehabilitation

Our rehabilitation programs minimise disability through early intervention. We offer close cooperation between treating personnel, the employee and Company rehabilitation staff to progressively increase work and non-work related activities consistent with a person's physical and mental capacity. Rehabilitation is undertaken not just for work related injuries or illnesses, but also for non-work related medical problems wherever practicable.

Health Assessment Programs

Our health assessment programs are targeted to specific jobs and potential exposures. They also comply with regulations in the countries in where we operate.

Over 9,000 health assessments were conducted across the Company's operations in 2011. A compliance rate against planned assessments of 77.7 percent was achieved, significantly lower than the 2010 rate of 94.6 percent (refer to Graph 8).

While Orica Chemicals, Minova and Orica Mining Services businesses in Asia and North America reported almost 100 percent compliance against health assessment programs, the overall health performance index for 2011 was below last year due to the lower performance of Orica Corporate and other Orica Mining Services (OMS) regions' performance, particularly across Latin America.

We will work to overcome the logistical difficulties in the management and reporting of health programs in regional and emerging locations. Minova North America reported for the first time in 2011 and planning has commenced within the remainder of the Minova group towards progressively providing health data in 2012.

Health Assessment Performance Index



Graph 8.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Travel Safety, Health & Security

As an international company with increasingly diverse operations, Orica employees may be seconded or required to travel to areas where specific safety, health and security hazards may be present. The level of medical support can vary by region.

Processes are in place to ensure that Orica employees travelling internationally are fit to travel, appropriately medically prepared, fully informed of any safety, health and security hazards and the relevant precautions and/or local procedures to be followed. Information on risks is readily available on the Company intranet, which includes links to external monitoring agencies. In some areas of the Company employees have access to personal online specialist travel medical assessment and support.

Hygiene Monitoring

We have processes in place to provide assurance that we are controlling the exposure of our employees to chemicals and dusts. They are:

- Setting of appropriate global exposure standards to priority hazardous agents;
- Site-based hygiene assurance processes; and
- Controlling workplace hazardous substances (chemicals and materials) within our operations.

Our hygiene programs are periodically reviewed to ensure they reflect workplace hazards and to enable prompt modification where required. The performance of our programs, and their compliance with exposure standards, are systematically monitored throughout the year using an internal database.

Orica maintains a risk-based occupational hygiene monitoring program across its operations. The program monitors exposure to noise, solvents and other chemicals and dusts. In 2011 5,400 samples were taken; 98.1 percent of hygiene assessments were completed in 2011 compared to 93.5 percent in 2010 (refer to Graph 9).

Overall, compliance with the relevant occupational exposure standards was 98.6 percent compared with 99.1 percent in 2010 (refer to Graph 10). In 96 percent of cases, exposure control was achieved by use of engineering and other means. Dependence on the use of personal protective equipment (PPE) for the control of exposure was used in only 2.6 percent of cases.

Hygiene Assessment Performance Index



Graph 9.

Compliance to Occupational Exposure Limits



Graph 10.

As with health assessments, we will work to overcome the logistical difficulties in the management and reporting of hygiene programs in regional and emerging locations. Minova North America reported for the first time in 2011 and planning has commenced within the remainder of the Minova group towards progressively providing hygiene data in 2012.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Environmental Management

Our Safety, Health and Environment (SH&E) Model Procedures require that all Orica sites prepare long and short term SH&E improvement plans. Responsibilities and time frames for completing the plans are agreed and recorded. Importantly, the plans are developed in consultation with relevant workgroup SH&E representatives, SH&E committee members and line management. Read more about our SH&E Model Procedures in SH&E Management (page 59).

Environmental management plans are in place at all of our major sites. As well, a number of our sites around the world are certified to the international standard ISO 14001 for Environmental Management. Read more about our ISO 14001 certification in Partnerships & Programs by visiting http://www.orica.com/sustainability/files/2011ProdStew/Orica_Partnerships_&_Programs.pdf.

Environmental Compliance

Where applicable, manufacturing licences and environmental consents are in place at each Orica site, and are managed in consultation with local environmental regulatory authorities. Monitoring data is collected to measure compliance with licence conditions. Processes are in place to report licence breaches to authorities as required. Breaches are investigated to determine cause and ensure the risk of recurrence is minimised.

There were 83 instances of licence non-compliance in 2011 compared to 26 in 2010. Predominantly the increase occurred at Yarwun, Queensland, Australia due to the change in intensity and duration of the wet season, which resulted in a higher number of water based licence non-compliance events.

None of these excursions have resulted in prosecutions to date. We will continue to work towards eliminating environmental licence non-compliances at our sites.

Monitoring

In 2011 an excess of 9,200 tests were completed across the Company's operations in order to assess the compliance of our emissions (e.g. air, water, noise) with environmental licences and regulations. The majority of the tests were conducted by continuous sample monitoring and automatic analyses. There was one environmental non-compliance reported to our internal management system during 2011 compared with two in 2010. This represents a compliance rate of almost 100 per cent. This non-compliance, together with other loss of containment excursions, were reported to external regulators in accordance with our licensing agreements.

Environmental Prosecutions

Orica's ChlorAlkali site at Laverton, Victoria, Australia was fined nearly \$6,000 for breaching the terms of its Environmental Protection Authority licence by creating a risk of chemicals leaking into stormwater.

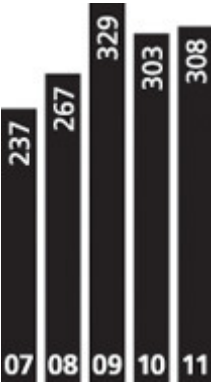
Environmental Performance Index

In 2005 we created an index designed to measure the value (V) we create over the direct impacts (I) we generate (i.e. V/I). Value added is measured as gross margin and impact is a measure that combines our energy and water consumption, greenhouse gas emissions and waste generation. The Index was set to a baseline 100 in 2004.

This metric was previously known as the Sustainability Index. With the expansion of Orica's definition of sustainability, this is now known as the Environmental Performance Index.

The Company's Environmental Performance Index for this period was 308 (refer to Graph 11). This reflects reductions in many of our key environmental parameters and strong economic performance in 2011.

Environmental Performance Index



Graph 11.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Energy & Greenhouse Gases

Our Safety, Health and Environment (SH&E) Model Procedure for Resource Conservation states that each of our facilities will "minimise the consumption of energy and non renewable resources, consistent with its SH&E Policy, objectives and targets. Where appropriate, individual targets and action plans to meet the Company's targets shall be included in the short and long term SH&E plans for each Facility".

Approximately 130 Orica sites and vehicle fleets around the world report energy consumption, energy production and greenhouse gas emissions in our centralised Environmental Performance Management System. Our larger sites are required to report monthly, while medium and small reporting sites report on a cycle relevant to their site (monthly, quarterly or annually). Orica uses a two-step approach for reporting this data, requiring data entry persons to report data and data approvers to check and approve data.

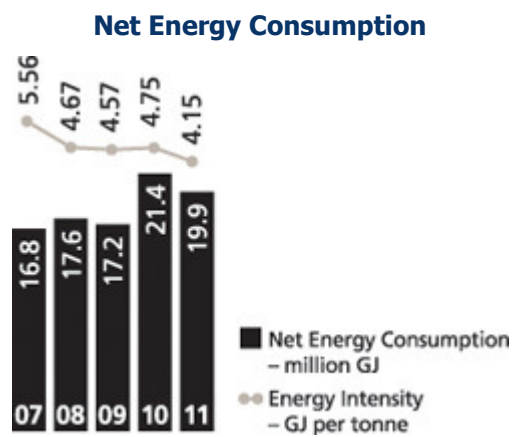
Energy Consumption

The Company's net energy consumption for the period was 19.9 million gigajoules (GJ), 7 percent lower than 2010 (refer to Graph 12). Net energy consumption is calculated as gross energy consumption minus the amount of energy our sites produce. A significant portion of this reduction is due to the Kooragang Island ammonia plant being shut down from July through to September 2011.

Orica's energy intensity in 2011 was 4.15 GJ per tonne of production. This represents a 13 percent decrease compared to 2010 (refer to Graph 12).

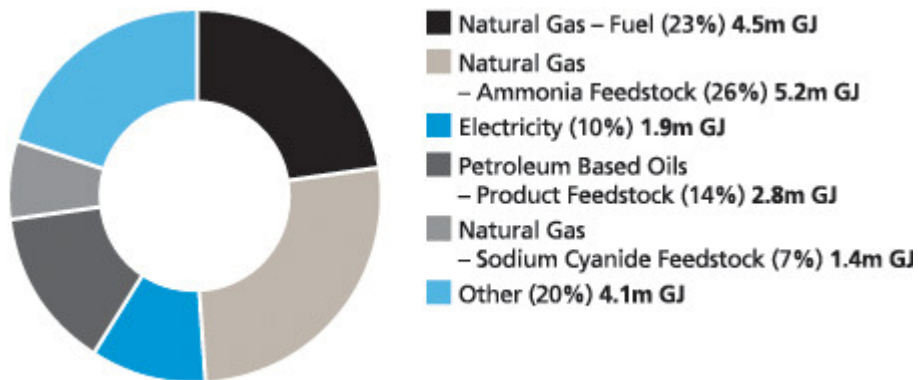
Note, 2010 energy consumption and energy intensity figures have been updated to reflect energy incorporated in product that is consumed by our international sites. 2010 data has also been revised to exclude DuluxGroup. DuluxGroup was demerged from Orica in July 2010. These allow a consistent baseline from which to measure performance.

Orica consumes various forms of energy including natural gas, electricity, diesel oil, steam, LPG and other petroleum based products (refer Graph 13). These energies are utilised in two ways: they are used as energy to power a manufacturing process or operation; or they are used as a raw material in product manufacture. Some forms of energy, such as natural gas and diesel oil, are utilised for both purposes. Only a minor amount of energy consumed by Orica is from renewable energy sources.



Graph 12.

Energy Consumption by Source



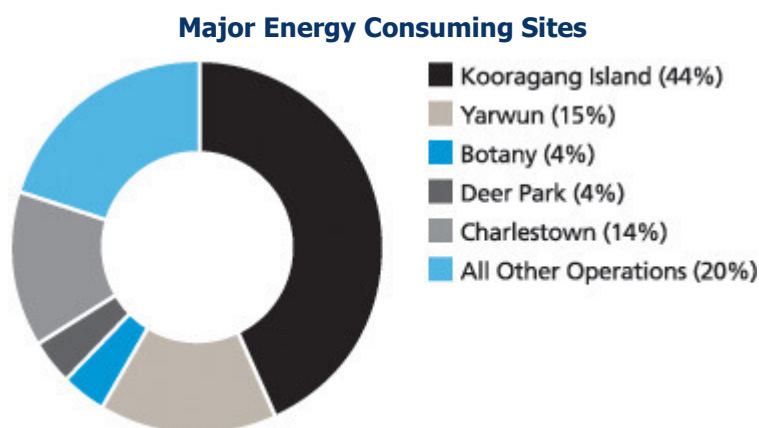
Graph 13.

Natural gas is Orica's largest energy source. It is used to power some of Orica's most energy intensive manufacturing processes, including the manufacture of ammonia at Kooragang Island in New South Wales, Australia. Natural gas is also the main raw material used in the manufacture of ammonia at Kooragang Island and sodium cyanide at our Yarwun site in Queensland, Australia. The chemistry of the process determines whether greenhouse gases are evolved from the gas consumption.

Electricity is a key energy source in the production of chlorine at Orica's ChlorAlkali plants in Australia (located at Laverton in Victoria, Botany in New South Wales and Yarwun).

Graph 14 shows Orica's most energy intensive sites. While Kooragang Island is Orica's most energy intensive site, Yarwun is Orica's largest site in terms of tonnes of product manufactured. Kooragang Island manufactures ammonia (a highly energy intensive product), nitric acid and ammonium nitrate. Yarwun manufactures nitric acid, ammonium nitrate, sodium cyanide and chlorine. Charlestown is an emulsion plant in the United States of America and is our third largest energy consuming site. This is due to petroleum based products that are used as raw materials in product manufacture.

Previously, energies used as raw materials were not reported by our international sites. In accordance with National Greenhouse and Energy Reporting legislation in Australia, Orica now reports the consumption of these energies from all sites globally. As noted above, 2010 data has been updated to include these energies.



Graph 14.

A small number of Orica sites produce energy that is either consumed by another Orica site, or exported for use by a nearby operation. For example, in 2011 our:

- Groundwater Treatment Plant at Botany exported 24,000 GJ of waste steam to the Botany Industrial Park;
- Chlorine plants at Laverton, Botany and Yarwun together generated 114,000 GJ of hydrogen which was re-used in boilers onsite rather than burning only natural gas; and
- Ammonium nitrate plant at Yarwun produced 64,000 GJ of electrical energy which was consumed onsite, replacing 18,000 MWh of electricity consumption from the grid.

Greenhouse Gas Emissions

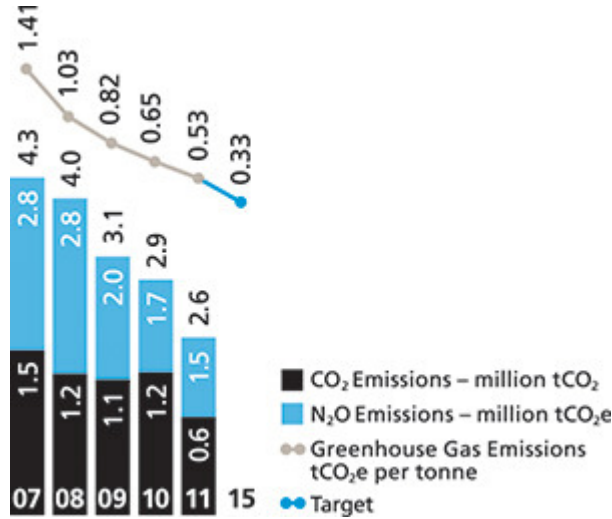
The Company's net greenhouse gas emissions for the period were 2,552,000 tonnes of carbon dioxide equivalent (tCO₂e), a reduction of 10 percent compared to 2010 (refer to Graph 15). Net greenhouse gas emissions are calculated as gross emissions minus those emissions captured or abated. Per tonne of production, we decreased greenhouse gas emissions compared to 2010 by 18 percent (refer Graph 15).

Two thirds of this reduction was the result of lower emissions reported at Yarwun, our largest manufacturing site. The Queensland floods in 2011 led to reduced local demand for products manufactured at Yarwun. As well, nitrous oxide emissions from Yarwun decreased as a result of research and development trials on one of the three nitric acid plants. Read more in N₂O Abatement (page 75).

The remaining reduction is attributed to the Kooragang Island ammonia plant being shut down from July through to September 2011.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Net Greenhouse Gas Emissions



Graph 15.

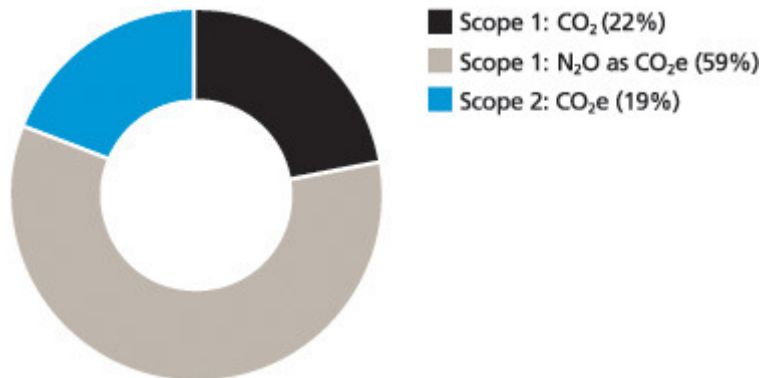
Orica emitted 2,035,000 tonnes of greenhouse gases as direct (Scope 1) emissions and 517,000 tonnes as indirect (Scope 2) emissions (refer Graph 16). Scope 1 emissions arise from energies that are consumed onsite, for example natural gas and diesel oil. Scope 2 emissions arise from energies that are produced off site, for example electricity and steam.

Nitrous oxide (N₂O) forms the majority of Orica's greenhouse gas profile, where 59 percent of emissions evolve as a by-product from the manufacture of nitric acid (refer Graph 16). Orica has four sites around the world that produce nitric acid, including:

- Kooragang Island;
- Yarwun;
- Carseland, Alberta, Canada; and
- Bacong, the Philippines.

The remaining 41 percent of emissions are carbon dioxide (CO₂), just over half of which are Scope 1 and the remainder of which are Scope 2. More than 70 percent of Scope 1 CO₂ emissions evolve from the production of ammonia at Kooragang Island; the rest is generated by the consumption of energy (refer Graph 16). Trace amounts of methane and sulfahexafluoride are emitted from the consumption of energy.

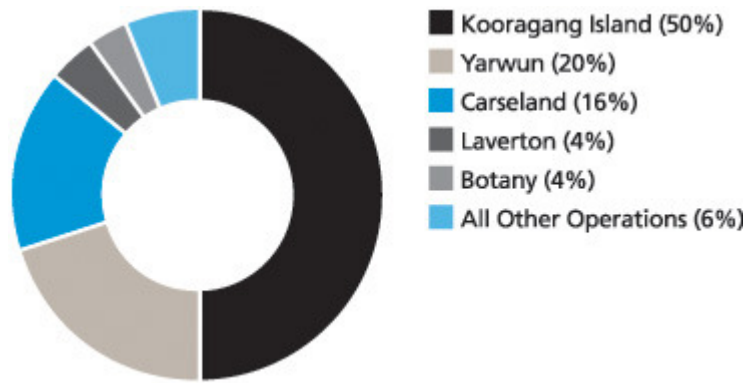
Greenhouse Gas Emissions by Scope & Gas



Graph 16.

As with energy consumption, Kooragang Island is Orica's highest greenhouse gas emitting site (refer Graph 17).

Major Greenhouse Gas Emitting Sites



Graph 17.

Read more about how we are reducing greenhouse gas emissions in our case study Reducing Styrene Emissions (page 97).

N₂O Abatement

Technology exists that can abate N₂O emissions generated during nitric acid manufacture, essentially breaking down the N₂O molecule into harmless nitrogen and oxygen. As part of Orica's abatement program, we have installed N₂O abatement technology at two nitric acid plants in Carseland and Bacong and are exploring opportunities at our remaining plants. Australia's pending Clean Energy Future legislation will impact this program. Read more in Climate Change Implications (page 16).

Secondary N₂O abatement technology was installed on Nitric Acid Plant 1 at Carseland in Canada in May 2008. An abatement level of 82 per cent was achieved in 2011, which is equivalent to abating approximately 475,000 tCO₂e. More than 1,400,000 tCO₂e has been abated since the technology was installed in 2008.

Secondary N₂O abatement technology was successfully installed on Bacong's Nitric Acid Plant in July 2009 in the Philippines. An abatement level of 77 per cent was achieved in 2011, which is equivalent to abating approximately 23,000 tCO₂e. More than 48,000 tCO₂e has been abated since the technology was installed in 2009. In 2010 the project achieved registration for the United Nation's Clean Development Mechanism. Due to delays in the verification process, the project has yet to generate tradeable credits.

Orica began a N₂O research and development trial at Nitric Acid Plant 3 at Yarwun in 2010. This trial involves alternative technology which has provided promising results to date.

Over the past few years, Orica has also been investigating the effects of oxidation catalysts on N₂O generation. Oxidation catalysts are a key part of the nitric acid manufacturing process; they work to convert ammonia into nitric oxide which later becomes nitric acid. N₂O is an unwanted by-product from the oxidation catalyst step. At Kooragang Island and Yarwun we are trialling different catalysts which have not only improved the efficiency of the conversion process, but also reduced emissions of N₂O by inhibiting its formation. This approach differs from traditional N₂O abatement technology where the N₂O molecule is first generated in the process, and then broken down into nitrogen and oxygen.

Water

Orica consumes water for use in cooling towers, as a raw material for product manufacture, washing equipment and process areas, for safety showers and eye wash stations as well as other uses such as employee amenities.

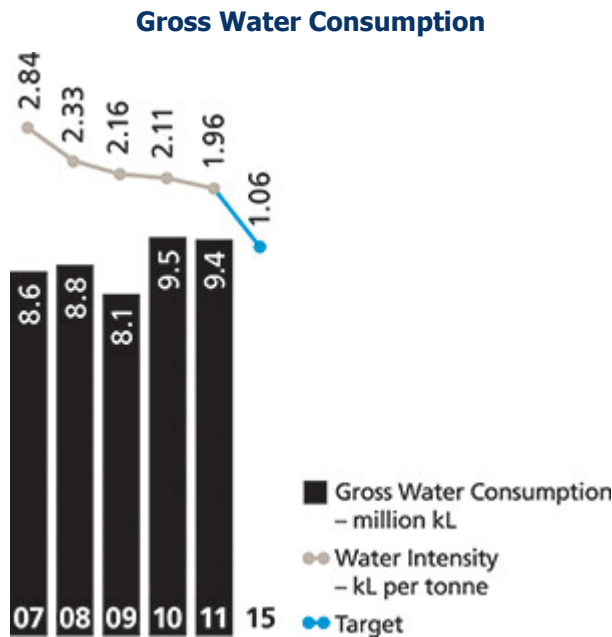
Our Safety, Health and Environment (SH&E) Model Procedure on Resource Conservation states that "each Facility shall monitor progress against its objectives and targets and shall report electricity, fuel and water consumption".

More than 80 Orica sites around the world report water consumption into our centralised Environmental Performance Management System. Our larger sites are required to report monthly, while medium and small reporting sites report on a cycle relevant to their site (monthly, quarterly or annually). Orica uses a two-step approach for reporting this data, requiring data entry persons to report data and data approvers to check and approve data.

Orica's gross water consumption for the period was 9,381,000 kilolitres (kL) of water which is equivalent to filling 3,752 Olympic sized swimming pools (refer to Graph 18). This represents a 1 percent reduction compared to 2010 and is due to the Kooragang Island ammonia plant being shut down from July through to September 2011 coupled with reduced production at Yarwun during the Queensland floods.

Orica consumed 1.96 kL of water per tonne of production in 2011. This represents an 8 percent decrease compared to 2010 (refer to Graph 18).

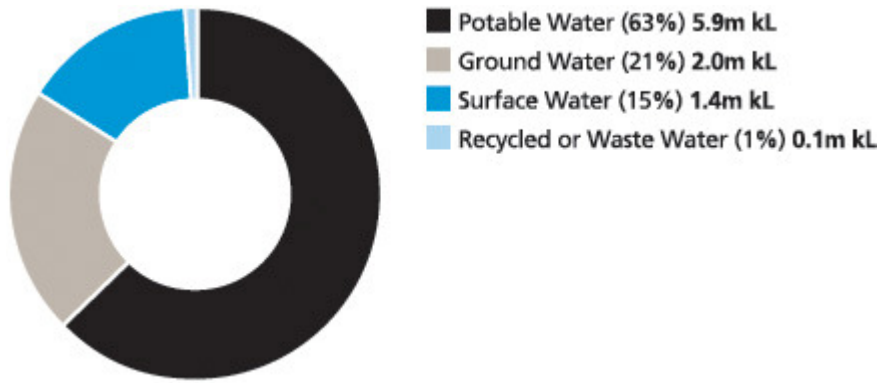
Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.



Graph 18.

Four sources of water are reported, including potable water, ground water, surface water and recycled or waste water (refer Graph 19). Potable water makes up nearly two thirds of Orica's total water consumption.

Water Consumption by Source

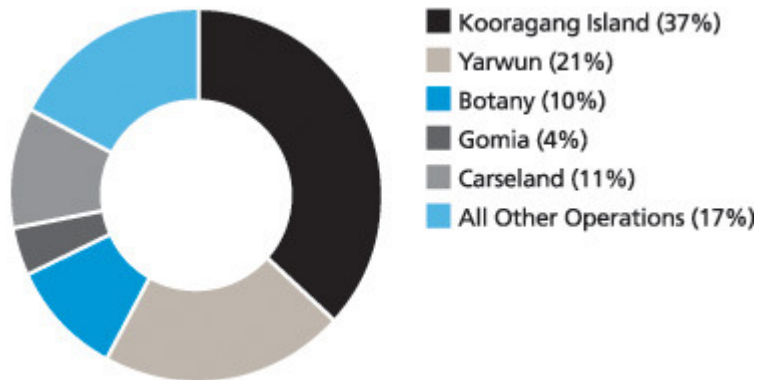


Graph 19.

We continue to reduce the consumption of potable water at our ChlorAlkali plant at Botany, New South Wales, Australia through the supply of treated water from our Groundwater Treatment Plant (GTP). In 2011 the GTP supplied more than 1,250,000 kL of treated water to our ChlorAlkali Plant and third party users in the Botany Industrial Park, reducing potable water consumption equivalent to 500 Olympic swimming pools.

Orica's most water intensive site is Kooragang Island which consumes 37 percent of Orica's total water for use in manufacturing processes (refer Graph 20). The site continues to work with New South Wales water authority, Hunter Water, to progress an opportunity to consume recycled water rather than potable water.

Major Water Consuming Sites



Graph 20.

Current and future water conservation projects underway include:

- Our Kwinana site in Western Australia has started blending effluent from our Welshpool site into finished product, saving approximately 240 kL of potable water per year. Read more in our case study, Sustainability Savings in WA (page 93);
- Our Morrinsville site in New Zealand is aiming to recycle 100 percent of the water used in Clean In Process (CIP) operations in their food grade plant. CIP's are required in food grade manufacturing operations to eliminate potential for food safety issues (for example bacteria) and cross contamination of food grade products. If successful, NZ\$90,000 of waste disposal and water heating costs could be avoided. Read more in our case study, What Goes Around (page 98); and
- Our Kooragang Island site continues to work with New South Wales water authority, Hunter Water, to progress an opportunity to consume recycled water rather than potable water.

Waste

We aim to minimise the impact of waste on the environment and the community. We prioritise our waste management options as follows:

1. Cleaner Production - Eliminate and minimise waste streams (usually at the source);
2. Reuse and Recycling - To be considered where cleaner production options are not practicable; and
3. Treatment and Disposal - To be considered where cleaner production, recycling and reuse options are not practicable.

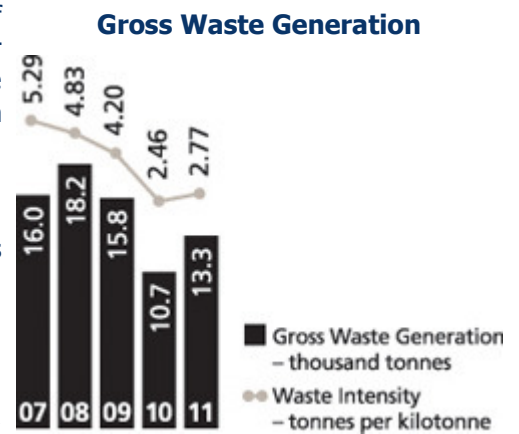
Our Safety, Health and Environment (SH&E) Model Procedure on Waste Management states that "Each site shall establish waste minimisation targets and resource action plans, consistent with its SH&E policy, objectives and targets and any local environmental licence and legislative requirements."

More than 250 Orica sites around the world report waste generation on a monthly or quarterly basis. Reported waste is classified as either hazardous or non-hazardous (according to the relevant legislation at each site), and is then reported in one of the following categories; waste sent to landfill, waste recycled, waste reused and waste destroyed or treated onsite.

In 2011 Orica generated 13,000 tonnes of waste. Half was classified hazardous and half non hazardous. Waste generation per tonne of production for 2011 was 2.77 (refer Graph 21), 25 percent higher than 2010. This is predominantly due to an increase in liquid waste and concrete rubble reported at Kooragang Island as part of an uprate project and the installation of a new car park. Kooragang Island is Orica's most waste intensive site.

In addition, there has been an increase in the number of sites reporting waste internationally and an improvement in reporting accuracy from several Orica sites in Latin America and Indonesia.

In previous years Orica has reported waste that is stored onsite, i.e. awaiting its final destination. While this data is still reported internally, it will not form part of Orica's waste profile going forward to ensure data is not duplicated when it is transferred from storage to a waste destination. These changes ensure that going forward Orica has a sound baseline from which to measure progress.

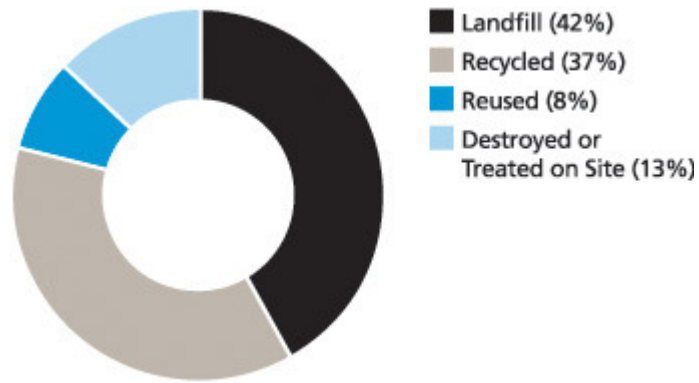


Graph 21.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

In 2011, 42 percent of Orica's total waste was sent to landfill, 37 percent was recycled, 8 percent was reused, 13 percent was destroyed or treated on site (refer to Graph 22). Waste that is sent to landfill includes broken packaging that can no longer be reused, filter cake that no useful function can be found for and other general waste. Recycled waste includes building rubble, oils/lubricants, scrap metal and other domestic waste. Clean wood pallets are the most common form of waste reused. Waste that is destroyed or treated onsite is normally packaging for explosives material. This type of waste must be burnt onsite as it is potentially dangerous to be taken offsite.

Waste Disposal Methods



Graph 22.

Read more about how we are reducing waste in our case studies:

- [Small Initiative, Big Impact](#) (page 94);
- [Corks for Elephants](#) (page 95);
- [Green Office in NZ](#) (page 96);
- [What Goes Around](#) (page 98); and
- [Metal Reclaim](#) (page 99).

Spills & Emissions

Site Losses of Containment

There were 15 serious (Category 2+) site losses of containment recorded at our operations in 2011, compared with nine in 2010 (refer to Graph 23). There were no significant injuries as a result of the losses. Incident investigations were undertaken in each case and appropriate corrective actions implemented to prevent further recurrence. Sites also record and investigate minor leaks or spills of product that are quickly brought under control.

The incident that caused the most concern in the community occurred on August 8 at Orica's Kooragang Island ammonia plant in New South Wales, Australia. This resulted in between 10 and 20 kilograms of sodium chromate containing hexavalent chromium being released, traces of which were found in northern parts of the adjacent Stockton neighbourhood. Two independent reports concluded that there was no threat to human health. Read more at Community Engagement (page 111).

Of the 15 incidents, 13 involved the loss of dangerous goods to either bunded (contained) areas or to the ground, and two resulted in emissions to atmosphere. The incidents occurred across all regions; nine in Australia, two each in North America and Asia, and one each in Europe and New Zealand.

Site Losses of Containment



Graph 23.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

Chemical Releases

Orica reports chemical releases from our global operations in accordance with Australia's National Pollutant Inventory (NPI) program which lists 93 toxic substances in the inventory. As per the NPI program, Orica's reporting of chemical releases covers the period 1 July 2010 to 30 June 2011.

Read more about our Chemical Releases 2007-2011 by visiting http://www.orica.com/sustainability/files/2011SHE/Orica_Chemical_Releases_2007-2011.pdf.

Note, 2010 data has been revised to exclude DuluxGroup. This allows a consistent baseline from which to measure performance. DuluxGroup was demerged from Orica in July 2010.

For more information on NPI visit <http://www.npi.gov.au/>.

Internal Programs

Global Green Office Program

Orica's Global Green Office Program encourages our employees around the world to participate in creating a sustainable future. The main objectives of Green Office are to:

- Progress our offices towards the no harm aspiration; and
- Create a culture in our office environments and operational sites that strongly supports our no harm strategy.

All of the tools necessary for a site to implement a Green Office Program are provided. From an introduction to sustainability, to what sustainability means to Orica, to how to engage employees, the program is a one-stop-shop to help our sites become more sustainable.

Since its creation in 2007, Green Office Programs have been implemented at:

- Mount Maunganui, New Zealand;
- Newmarket, Auckland, New Zealand;
- Nicholson Street Head Office in Melbourne, Victoria, Australia;
- Denver, Colorado, USA;
- Kurri Kurri, New South Wales, Australia; and
- Victoria Parade, Melbourne, Victoria, Australia.

Read more about New Zealand's progress with the Green Office Program in our case study Green Offices in NZ (page 96).

Global Resource Hunt

Working in parallel with our Green Office Program is the Global Resource Hunt; a program based on the same principles as Green Office but targeted at our manufacturing, warehouse and distribution sites around the world. The Resource Hunt provides guidance for brainstormed initiatives to be quickly ranked, so that the most promising opportunities can be given greater focus. These two programs can run individually or in conjunction with each other, and provide the means to create a culture that is both conscious and knowledgeable about sustainability.

In 2010, the Resource Hunt was launched at Orica Chemicals sites across Australia, New Zealand and Latin America. Several new initiatives were recognised in 2011, including:

- Orica's ChlorAlkali plant in Laverton, Victoria, Australia installed energy efficient lights to reduce power consumption by up to 70 percent and reduce long term maintenance costs. The site also worked with their local water authority to collect rainwater from the site and roof of a neighbouring property. This is stored in a collection pond onsite for use in the cooling tower. It is estimated that the project could save up to 34 million litres of potable water per year. The site has also changed their operating parameters of the cooling tower to cycle water at a faster rate, saving an additional \$3,500 per year in water and treatment chemical costs;
- The Kwinana site in Western Australia are blending effluent from Orica's Welshpool site into finished product to save approximately 240 kilolitres of potable water and up to \$70,000 per year. Read more in our case study Sustainability Savings in WA (page 93);
- The Port Kembla site in New South Wales, Australia installed a new pipeline from an acid storage tank onsite to an existing pollution control device in another area of the plant. This eliminates odour and atmospheric emissions from the acid in the tank. The site has also saved approximately 12,000 kilolitres of water by installing new effluent system pumps, a polishing filter and a rainwater collection tank. The polishing filter allows filtered effluent to be recycled into the plant;
- The Deer Park site in Victoria, Australia has recently introduced new bins for recycling specific plastic products onsite. This initiative will reduce waste to landfill and save approximately \$12,000 per year. The sites printers have changed to default to double-sided printing to save paper and reduce costs; and
- The Morrinsville site in New Zealand has implemented various environmental projects to reduce water consumption and waste sent to landfill. Current initiatives will save approximately 16,000 kilolitres of

water and divert around 66 tonnes of waste per year from landfill, while saving an estimated NZ\$23,000 per year. Read more in our case study [What Goes Around](#) (page 98).

The Chemicals' sites will continue to review their initiatives to determine the viability of implementing further initiatives, with the aim of continually reducing the impact of their operations on the environment.

Safety, Health & Environment

Case Studies

2011

Case Study: Safety at Essen

Minova

Essen, Germany

The Minova team at our Essen site in Germany have put a lot of emphasis on safety over the past year. Two key examples include a week spent focusing on road safety to raise awareness, and the development of a site emergency plan.

During road safety week, a speed indicator was installed on the road leading to the office building. This road is regularly used by passenger cars and forklifts, and the speed indicator served as a timely reminder of the potential for accidents, even at low speeds. This was made possible by the excellent cooperation of BG-Chemie, the industrial injuries corporation, who lent the speed indicator to Orica free of charge. Employees also attended training sessions with tips on accident prevention throughout the week.

The team at Essen recently completed a site emergency plan, a task that they have worked on all year. The plan includes guidelines for numerous possible emergency situations.

The plan outlines to employees how to behave in emergency situations and who to turn to for help. The list of possible events includes fires and explosions as well as more unlikely events like plane crashes. The project was initiated following an internal safety, health and environment (SH&E) audit, with the new emergency plan complementing the existing fire emergency plan that has been in place for several years.

The plan was distributed to all employees by email, is available in hard copies throughout the site and is available on Orica's intranet.

These initiatives illustrate how Orica's strong SH&E culture is being embraced by Minova.



The speed indicator was installed onsite to provide drivers with an instant speed reading.

Case Study: Reaching Platinum Status

Orica Mining Services Latin America

Four Orica Mining Services (OMS) sites in Latin America have achieved "platinum status" in OMS' World Class Check Point (WCCP) program.

OMS has long history of working to improve safety. OMS leaders demonstrate a clear commitment to safety, supported by a strong focus on practical initiatives such as training, audits, procedures and behavioural programs.

The WCCP program was designed to audit the implementation of Orica's safety, health and environment (SH&E) management system at every OMS site globally and help motivate employees to strive to improve our SH&E results. It provides an indication of how OMS sites are managing SH&E programs. Results of the program give OMS sites a classification status depending on their level of compliance. Platinum is the highest level where more than 98 percent SH&E compliance is met, followed by gold, silver and bronze. This allows sites to see where they're at and strive to improve.

In 2010 the program was relaunched in Latin America and all the operational teams worked enthusiastically to implement it. The results for 2010 produced a range of statuses from bronze to gold.

In 2011 all sites were challenged to set and reach demanding goals. Everyone worked very hard during the year, focusing on addressing the actions they received after the last audit. Four sites in Latin America achieved platinum status for the first time, including:

- Spence, located in Chile at a BHP copper mine;
- Yamana, located in Brazil at a gold mine that provides rock on ground;
- Catalao, located in Brazil; and
- Mexatin, located in Mexico.

But the work does not stop here! The goal now is for all sites to reach a minimum of silver status, to increase the number of gold status sites and to strive for platinum.



The OMS team at Spence, Chile, achieved platinum status for the first time in 2011.



As did the OMS team located at a gold mine in Yamana, Brazil.

Case Study: Inspiring Workplace Safety

Orica Mining Services Argyle Diamond Mine, Australia

In late 2010, Orica employees contracted to the Argyle Diamond Mine in Western Australia took part in a celebration to recognise 600 days without lost time due to injury.

Their commitment to safety continued this year with a new campaign to encourage improved awareness onsite.

The campaign was launched by the Underground Safety Department and a very special guest, world boxing champion Danny Green. Site manager, Steve Gallagher said, "Danny talked about how important the preparation before a fight was and how this influenced the way fights unfold. He told us how the most prepared boxer is usually the one who is the most successful. This is similar to how preparing for a task at work can influence how successful we will be completing it without incident. It also highlighted how programs like 'Fitness For Work' and risk assessments can give you the best chance of completing the task without incident. It was a great night shared by all on site."

The timing of the event was important because the site was approaching the wet season - the time of the year that most incidents occur on site. OMS will continue to seek creative and practical ways to inspire workplace safety.

Read more about Fitness For Work in Occupational Health (page 67).

Case Study: Project Canary Program

Orica Mining Services Australia/Asia

The latest safety training program for Orica Mining Services' (OMS) employees has been successfully rolled out across sites in Australia and Asia and interest is building for the program to be used by other Orica sites around the globe.

Known as Project Canary, the training program is based on software that has been designed to simulate a realistic mining site. It was developed in Queensland by the Mining Industry Skills Centre (MISC) in collaboration with 3D animation and games developers. The simulation tests a range of competency outcomes required by OMS people, including general mine hazard awareness, chemical handling, assessing risk and risk controls in a mine site, isolation and tagging, operating light vehicles, emergency response and first aid. Earlier last year, operations employees took part in the latest training workshops at Kurri Kurri, New South Wales, Australia and Mackay, Queensland, Australia.

The successful rollout of the program was keenly watched by other OMS regions, including employees from Latin America who joined in the workshops as part of their visit to Australia to understand the training systems locally. OMS China is also looking at adopting the new program and work is under way to translate the program into Bahasa and Hindi languages to aid its introduction into Indonesia and India.

Harley Doughty, training services manager for OMS Australia Asia, said that training for site safety representatives was currently being delivered by external providers, the company was in the process of developing an internal training program to deliver core competencies and the Canary simulation would be central in support risk management dimensions of that training. "Being able to train people internally will save the business tens of thousands of dollars annually," Harley said. "It will also reduce the duplication that now occurs when employees undertake the same programs to meet the mandatory requirements of the Queensland mining industry for site safety representatives, generic induction programs and Orica's internal training." Harley said the next steps in the rollout would include piloting the program and ensuring it was endorsed and recognised for meeting the required industry safety standards.

"We are also liaising with MISC to improve the program and exploring options for new simulation models and scenarios specific to OMS situations, such as more detailed on-bench models, initiating and high explosives and highwall hazards," he said.



The Project Canary software simulates a realistic mine site to train OMS employees.

Case Study: 10 Years Accident Free

Orica Chemicals North America

Orica Watercare's commitment to our Safety, Health and Environment (SH&E) Policy has allowed the North American business to reach a significant milestone of 10 years accident free!

The Watercare business in North America began operations in January 2001 and has been injury free since commencing operations.

This achievement is particularly notable given the steady increase in Orica Watercare's business over the past decade. During this time, over 30 MIEX[®] treatment systems have been constructed across North America. While Watercare's North American business was started with a single employee in 2001, the size of the US-based team has increased to 15 individuals over this time to support the growing business.

Due to this growth, the engineering team spends much of its time onsite at water treatment plants installing, commissioning, and providing support for MIEX[®] systems. This increases the team's exposure to potentially hazardous situations such as confined spaces, working at heights, and contact with harmful chemicals on a daily basis. "The focus of Orica Watercare Management is on safety awareness which dramatically helps heighten individual awareness in the field," said Forrest Vaughan, senior systems engineer. "It is an expectation that injuries can and should be prevented as first priority."

Orica Watercare employees are commended for embracing the Company's safety culture and strictly adhering to the SH&E Policy. One aspect of this includes conducting a "Take 5" audit prior to commencing work. A "Take 5" requires employees to:

1. Stop. Describe the task they are about to undertake;
2. Think. List the hazards they could encounter;
3. Identify. Assess the risks of the scenario;
4. Plan. List the controls that exist; and
5. Proceed. Decide the best approach to complete the task at hand.

Using standard procedures such as this, the business has successfully minimized risk and has been able to complete tasks safely for the last 10 years.

"This is a great accomplishment and could not have been achieved without the entire team's dedication to Orica's SH&E Standards and commitment to Orica's vision of no injuries to anyone, ever," states Ellen Gaby, vice president of sales.

The team, pictured below, is looking forward to the next decade of business growth and continued safe operation.



Scott Mitchell, Orica Watercare project manager, working onsite at Arab water treatment plant.



Johnston County water treatment plant in North Carolina, United States of America, the largest MIEX[®] system in operation.



The Watercare team at Johnston County water treatment plant.

Read more about MIEX[®] by visiting www.miexresin.com.

Read more about SH&E Management (page 59), Orica's SH&E Standards by visiting http://www.orica.com/sustainability/files/2011SHE/Orica_SH&E_Standards.pdf and our SH&E Policy by visiting http://www.orica.com/sustainability/files/2011OurApproach/Orica_SH&E_Policy.pdf.

Case Study: Worker Health Checks

Orica Australia

Orica Australia's Victorian and New South Wales operations have taken advantage of WorkSafe Victoria's free worker health checks for all staff. In conjunction with Springboard and our partner health insurance provider BUPA, health risk assessments were conducted for the first time in November 2010.

More than 645 Orica employees had a work health check during November 2010. The basic work health check involved testing for diabetes, blood pressure, cholesterol and associated risks of heart disease.

Our service provider Springboard also conducted a detailed online assessment that employees had to complete prior to their assessment. This was taken into account during their assessment and alongside the work health assessment results. All results were strictly confidential but a report on overall statistics was provided to Orica.

The report highlighted the major health risk factors identified by the assessments. If any one person tested has more than two risk factors, it substantially increases their chance of chronic disease and injury as they age.

Employees were also given advice on lifestyle issues around nutrition, exercise, smoking and alcohol consumption.

With the incidence of diabetes, heart disease and obesity on the rise, worker health checks are seen as valuable tool to provide information to employees on their overall health and lifestyle choices. Orica recognises this and was more than happy to participate and enhance the testing available to staff.

The benefits of a health and wellbeing program are beneficial for both the employee and employer. Healthier employees are generally happier, more motivated and more productive.

Read more about Occupational Health (page 67).

Case Study: A Race for Health

Orica Mining Services Gyttorp, Sweden

In May this year, women from the Orica Gyttorp site in Sweden participated in the SpringRace, part of an annual tradition held in the nearby city of Örebro.

The first race was held in 1989, and each year cities from all over Sweden organise fun runs aimed at getting people active and involved with their community. More than 135,000 participants now participate each year. Ann-Britt Jansson, lean six sigma manager for Orica Sweden, said this year's event got off to a fun start!

"We all started with a Zumba warm-up. Then everyone ran, jogged or walked five kilometres in the beautiful weather," she said. "Music was played and people were cheering along the track through the city of Örebro.

"Sandra Almer was the fastest among the Orica women, finishing the course in 24 minutes. We are very proud of everyone's achievements."

At the completion of the run, everyone received a medal and enjoyed a well-deserved picnic.

Case Study: Sustainability Savings in WA

Orica Chemicals Australia

An innovative idea from a group of operators at two Orica facilities in Western Australia has resulted in immense water and cost savings.

Orica Chemicals has two production sites in Western Australia; a sodium hypochlorite (hypo) plant located in the Perth suburb of Welshpool, and a more recently acquired ferric sulphate plant located 30 kilometres to the south in Kwinana. Hypo is used to disinfect Perth's water and waste water while Kwinana produces approximately 3,000 tonnes per year of ferric sulphate for the Kalgoorlie nickel refinery and the Water Corporation desalination plant.

Historically, Welshpool spent around \$80,000 per year to dispose of effluent (salt solution and wash down water). Kwinana however, is able to recycle its effluent into the production process.

An opportunity was identified, and following a trial, Kwinana is now blending Welshpool effluent into finished product without compromising safety, quality or services to customers. The annual savings are estimated at \$70,000 in effluent disposal costs for Welshpool and 240 kilolitres of potable towns water for Kwinana.

This sustainable, environmentally beneficial outcome could not have been achieved without the innovative ideas and collaborative efforts of key personnel at both the Kwinana and Welshpool sites. This is a true example of our Deliver the Promise culture delivering sustainability benefits.

Read more about Deliver the Promise in Our Culture (page 102).

Case Study: Small Initiative, Big Impact

Minova
Smithfield, Australia

The team at Minova in Smithfield, New South Wales, Australia, have recycled more than 7,500 empty aluminium cans in six months.

Ramsey Noshie, warehouse team leader, explained how his site got involved with recycling. "My team collects empty aluminium cans, with a number of allocated bins around the site for people to place them in when empty," he said.

"They get collected monthly and one of my team members takes them to his daughter's school for recycling. The reason we do it is to help the environment. One of us realised how many cans we throw out, so he put out a crate to collect them. This led to putting specific bins around the site. On average the team collects about 1,300 cans per month and in the past six months we have recycled more than 7,500 cans. This has a huge impact on the environment, as for every one tonne of aluminium cans recycled, five tonnes of aluminium ore (bauxite) is conserved," Ramsey said.



Ramsey Noshie and his team with some of the aluminium cans collected for recycling.

Case Study: Corks for Elephants

Orica Corporate Australia

After the success of an initiative called "Corks for Elephants" at Orica's Victoria Parade office in Melbourne, Orica's Nicholson Street Head Office followed suit by launching the same campaign earlier this year. The campaign involves collecting and recycling corks, plastic stoppers and aluminium screw tops.

Corks for Elephants is a program run by Friends of the Zoos in Melbourne, Australia. Collected corks and other items are recycled, with the proceeds donated to the local zoos. In 2011 proceeds were donated to a new elephant exhibit which recently opened at Melbourne Zoo. Funds are now being used for other things that the elephants need, such as shade cloths and medical equipment.

Not only does this campaign help the elephants, but it also helps the environment by reducing waste. To date, Friends of the Zoos have stopped over 43 million corks going to landfill. Corks can be recycled into cores for cricket balls, floor tiles and place mats, while plastic wine stoppers are used in underground cable covers.

Both offices are continuing to collect corks as part of their Green Office Programs.

Read more about Orica's Green Office Program in Internal Programs (page 81).

Case Study: Green Offices in NZ

Orica Chemicals New Zealand

Orica Chemicals Green Office Program has delivered substantial benefits since its introduction three years ago. Each office in New Zealand has examined and implemented ways to reduce energy use and waste to landfill, as well as procure more environmentally friendly office products.

For example, paper from alternate fibre sources is now purchased, printers are set to print double-sided and excess paperwork automatically printed at warehouse sites has been stopped. These initiatives alone have reduced paper use by 20 percent. All offices recycle paper, plastic, cans and glass, and disposable cutlery are no longer available in the kitchens.

Regular checks are done to ensure that staff switch off their computer equipment before they leave the office at the end of the day. Timers on air-conditioning units have been adjusted where necessary to avoid them running evenings and weekends when staff are not on site.

In 2011, additional Green Office initiatives were introduced at New Zealand's Head Office at Newmarket in Auckland.

A food waste bin is now located in the kitchen and is emptied by a staff member for her compost bin. This is diverting around 500 kilograms of food waste per year from landfill.

Used batteries are collected separately and staff are encouraged to bring batteries in from home. These are taken to a local store who send the batteries away for recycling and/or responsible disposal. To date around 30 kilograms of batteries have been diverted from landfill through this initiative preventing hazardous materials seeping into soil and groundwater. When recycled, the metals contained in batteries can be reused as a secondary raw materials including lead, nickel and mercury, in other production processes.

Office paper is sourced from a certified alternate fibre paper provider and is made from the waste of sugar cane, which is otherwise normally burnt as a by-product.

The business will continue to seek more innovative ways to enhance their Green Office Program in 2012.

Read more about Orica's Green Office Program in Internal Programs (page 81).

Case Study: Reducing Styrene Emissions

Minova

Bluefield, United States of America

Minova have reduced styrene emissions at their Bluefield site in the United States of America by approximately 75 percent.

Bluefield is Minova's largest producer of polyester resin cartridges used to anchor steel bolts into the roof of mines and tunnels to prevent roof falls, producing on average 28,000 tonnes of cartridges per year and generating approximately 7,000 kilograms of styrene emissions a regulated hazardous air pollutant. In an effort to improve production without increasing emissions, the site investigated various readily available technologies as well as unique alternatives.

In researching readily available control equipment, the team realised the cost would be between US\$0.5m and \$1m to install, as well as a burden to maintain.

A unique and cost effective alternative was proposed. Using knife valves to open and close exhaust lines from each styrene mixer, the team could reduce overall emissions as the amount of styrene laden air from each mixer would be reduced. This innovative alternative was also extremely cost effective at US\$12,500, and easy to maintain.

The solution enabled the site to reduce total styrene emissions from approximately 7,000 to 4,000 kilograms while production increased by 150 percent to 69,000 tonnes!



The knife valve was installed in the mixer exhaust lines.

Case Study: What Goes Around

Orica Chemicals Morrinsville, New Zealand

In 2011 our Morrinsville site in New Zealand implemented various environmental initiatives as part of Orica's Resource Hunt Program to reduce water consumption and waste sent to landfill. Current initiatives will save approximately 16,000 kilolitres of water and divert around 66 tonnes of waste per year from landfill, while saving an estimated NZ\$23,000 per year.

The initiatives were identified during a monthly site meeting. A site steering committee was organised involving site management, production and administration personnel, with the initial meeting to assess and prioritise each idea based on the potential saving, effort and cost to implement. Action plans were developed and progress was reviewed at monthly meetings. Critical to the success of these initiatives was the commitment of the operations team, who determined how the recyclables would be collected and stored prior to dispatch from site. The great team work and outstanding results even won the Morrinsville team a Chemicals New Zealand Monthly Ideas Award!

Waste water has been reduced by fixing leaks around the site and reducing excessive water use by bulk tankers. Waste to landfill has been reduced by organising for all bulk raw material bags, plastic waste, cardboard, paper and glass to be recycled.



Cardboard recycling bins and bulk bags await dispatch to the recycling centre.



Bulk packaging bags ready for recycling.

Solid waste generated in the alum manufacturing process has reduced by 25 tonnes, but the team is confident the savings won't stop there. A feasibility study is underway to investigate the reuse of all solid waste generated in the process. If successful, the remaining 150 tonnes of solid waste would be diverted, with an added bonus of saving approximately NZ\$45,000.

Morrinsville is now aiming to recycle 100 per cent of the water used in Clean In Process (CIP) operations in the food grade plant. CIP's are required in food grade manufacturing operations to eliminate potential for food safety issues (for example bacteria) and cross contamination of food grade products. If successful, NZ\$90,000 of waste disposal and water heating costs could be avoided.



The tank at food grade plant where CIP washings will be used when making subsequent batches of product.

As well, the team are exploring other opportunities including the use of rainwater to supply water hoses on site which has the potential to reduce water use by a further 9,000 kilolitres per year and save NZ\$9,000.

Read more about Orica's Resource Hunt Program in Internal Programs (page 81).

Case Study: Metal Reclaim

Minova

United States of America

Minova's steel sites in the United States of America now reclaim 100 percent of the metal used on their sites, reducing the volume and toxicity of waste generated and saving approximately US\$10,000.

Minova's steel sites manufacture steel bolts and coils for use in underground applications. Most of the steel off cuts are sold to metal reclaimers, however some metal was being disposed of to landfill. Generally, this was metal dust and metal slag generated in the manufacturing process.

Companies that dispose of metal dust and slag to landfill are required to report releases of chromium, lead, manganese and nickel (materials found in the steel) to the Environment Protection Authority. Companies that reclaim 100 percent of waste metal are exempt from reporting.

To enable the sites to reclaim 100 percent of wasted steel and reduce their reporting requirements, the team at Minova invested in new equipment and created new procedures. Dust collectors were installed to clean up the air and recover metal dust. New procedures were put in place to recover slag generated from bolt manufacturing processes.

The results of this work save approximately US\$10,000 and reduce the reporting requirements by Minova sites. Importantly, metal waste to landfill has reduced by 50 tonnes per year, which is now reclaimed.

People & Community 2011

Overview

Our revised sustainability strategy includes People & Community as one of the three focus areas for our organisation. Read more in Our Sustainability Strategy (page 3).

We aim to foster a diverse, talented workforce and building strong and enduring relationships with community stakeholders.

Orica employs more than 14,000 people with operations in over 50 different countries and servicing customers in twice that number. Our culture empowers and motivates our people to achieve long-term, sustainable results. Through our culture we aim to honour our commitments to customers, shareholders, the communities in which we operate and each other. We continue to learn from others, challenge ourselves and strive to have a positive impact on our customers, colleagues and stakeholders.

Read more about Orica's Balance Sheet on page 48 of the 2011 Annual Report by visiting <http://orica.onlinereports.info/>. Orica operates more than 250 sites worldwide.

Our Culture

Much of our growth has come from geographic expansion, resulting in cultural, language and workplace-relations diversity. A strong organisational culture is critical to ensuring that we all share a common approach to the way we do business.

At Orica, sustainability is embedded in our organisational culture. Our performance-based culture program is called Deliver the Promise and is driven by personal accountability for delivering results.



Deliver the Promise is defined by four key principles that guide how we act and behave:



No injuries to anyone, ever. Value people and the environment.



Run the business as if it's your own - act responsibly and ethically.



Think differently, deliver swiftly and capture the value.



Succeed through collaboration.

Following extensive consideration by our Group Executive and using feedback from our employees, our Deliver the Promise principles were updated in 2011. The changes reflect the transformation of Orica and the new imagery emphasises that the principles are all equal parts of our successful culture.

We believe that Deliver the Promise encourages a truly holistic, sustainable approach to the way we do business.

The Deliver the Promise principles are incorporated in our performance management process. Annual objectives are set within the framework of the principles and our activities and behaviours, both as individuals and as a company, are constantly measured against the principles.

Our People in 2011

We employ more than 14,000 people around the world, with dozens of different languages and diverse backgrounds.

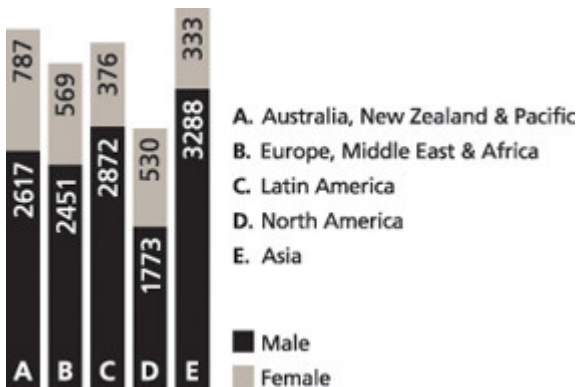
Recruitment, professional development and talent management programs are very important to our ongoing success. For example, the Orica Graduate Program is important to ensuring our technical, functional and leadership pipelines for a sustainable future. In 2011, the global program hosted 96 graduates on projects around the world, of which approximately 31 per cent are women. Read more in our case study Global Graduate Program (page 123).

Our Employee Profile in 2011

Employee turnover is expressed as the percentage of full-time and part-time employees leaving the organisation voluntarily, due to dismissal, retirement, or death in service. Average male turnover for the Company in 2011 was 14 percent; average female turnover was 13 percent. Orica hired 2,504 new employees in 2011. Read more about our Employee Turnover and New Employee Hires by business, region, gender and age group by visiting http://www.ora.com/sustainability/files/2011PeopleComm/Orica_Employee_Turnover_&_New_Employee_Hires.pdf.

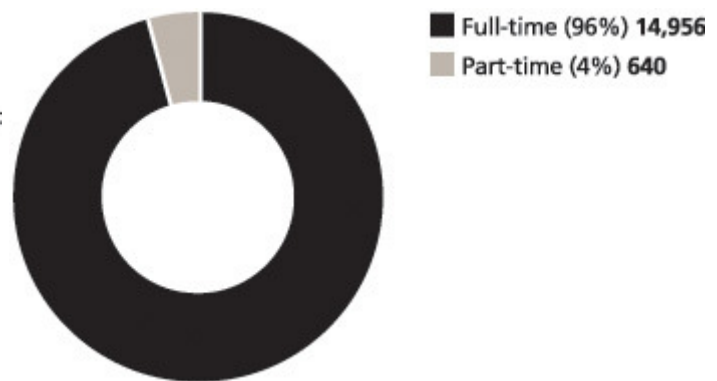
Graphs 24, 25, 26 and 27 represent Orica's employee profile.

Employees by Region & Gender



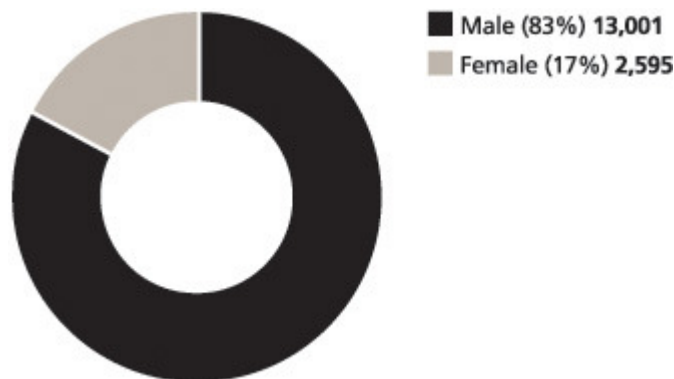
Graph 24.

Employees by Contract Type



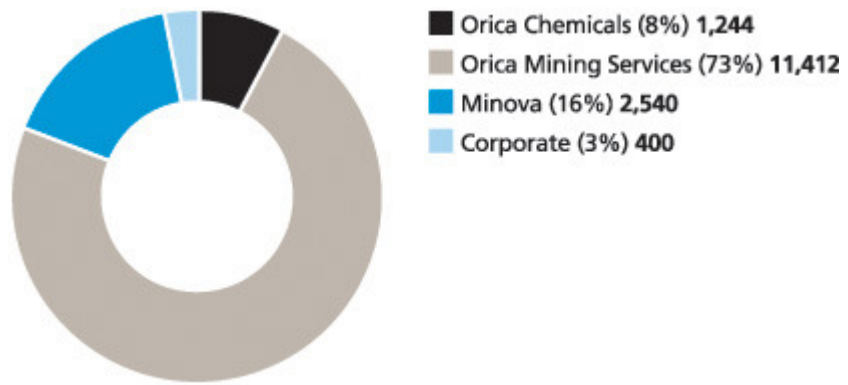
Graph 25.

Employees by Gender*



Graph 26.

Employees by Business



Graph 27.

* The Employees by Gender graph represents data from Australia only.

Employee Engagement

In May 2011 we conducted the second Orica Global Employee Survey across all business units and regions. The survey was available in 20 different languages, both online and in hard copy, for all full-time and part-time employees to complete.

This year we changed our survey provider and expanded our approach to consider employee enablement as well as employee engagement. Employee enablement measures how many of our employees feel they are in the right role for their skills and abilities and believe there are no barriers to them achieving success.

Overall, engagement results improved this year. The overall engagement score was 63 percent, an increase of 7 percent from 2010. Our enablement score tells us that 69 percent of our employees are fully enabled to carry out their role.

While there are some similar trends to the 2010 results, there were also some new themes identified in 2011.

The things that our employees said we are doing well include:

- Safety, Health and Environment - Again, safety and security were given high importance this year;
- Orica's values - Employees understand our values and believe our leaders' behaviours are consistent with these values;
- Role fit and clarity - Employees' roles make good use of their skills and present them with the challenges they are looking for; and
- Quality and customer focus - We are committed to quality work from our employees and quality solutions for our customers.

The areas for improvement identified through the survey include:

- Career and Development Opportunities - While there was some improvement from last year there is still a lot of work we can do to provide opportunities for skills development. Employees would like the opportunity to work in other parts of Orica and want more career guidance or career coaching;
- Performance Management - Again, we have seen an improvement from last year but employees want to see more. Employees know what is expected of them in their role but they would like to see good performance recognised and rewarded. They are also telling us that our performance management process is not helping them do their job better; and
- Senior Leadership - Improved communication from our senior leaders is required to provide greater clarity between the work employees do and Orica's strategy.

The 2011 results are pleasing and indicate we have made a significant improvement from last year. There is an opportunity to build on the efforts we have made in the areas of Career Opportunities and Performance Management as well as a chance to focus on new areas of development. The Orica Group Executive and business management teams are committed to making Orica an even better place to work and will work with employees to make the changes they want to see.

Labour Practices

Orica values our people and is committed to providing and maintaining a safe, flexible work environment, free of discrimination and harassment. To achieve this commitment requires focus in many areas, including:

- Equal Employment Opportunities;
- Diversity;
- Appropriate Work Environment;
- Commitment to Employment;
- Workplace Flexibility;
- Family (Maternity/Paternity/Eldercare) Leave;
- Staff Training & Development;
- Employee Assistance Program;
- Human Rights; and
- Integration of Sustainability.

Equal Employment Opportunities

Orica formally supports the principles of Equal Employment Opportunity (EEO) through its EEO policy and recruits staff purely on a merit basis. Orica strongly believes that all people have a right to work in an environment which is free of discrimination, harassment and bullying. Orica will not tolerate unlawful discrimination, harassment and/or bullying of its employees, contactors or members of the general public and appropriate action will be taken if the Global Anti-Harassment Policy is breached.

Diversity

Orica has a long history of supporting diversity, as shown by being a foundation member of the Diversity Council of Australia, which the Company joined in 1986. The business case to further embrace diversity within a global context is now even more compelling with the employee base spread across more than 50 countries.

Diversity is essential to Orica for a number of reasons, including:

- Enhancing long term sustainability by ensuring the Company is able to attract the best employees from the broadest possible pool of global talent;
- Ensuring the Company has the local knowledge and skills required to lead and support growth in emerging markets;
- Generating better solutions to problems and greater innovation; and
- Enhancing the positive impact the Company has on the communities in which it operates.

Orica's Diversity Strategy is not only about improving gender and international diversity but also creating an inclusive culture and leadership capability to lead diverse teams. The Diversity Strategy has three-year targets for gender, internationalisation and employee engagement. For example, the company has an aspiration to increase the percentage of women in senior management roles to greater than 20 percent. This focus has seen an increase in the percentage of female executives from 5 percent in 2009 to 12 percent in 2011. Overall, the percentage of women in the organisation globally is approximately 18 percent. The percentage of international executives (defined as those from outside of Australia and New Zealand) has increased from the initial baseline of 40 percent in October 2009 to 57 percent in 2011. Orica also conducted a global employee engagement survey across all business units in March 2010 and again in May 2011 and the results show a steady improvement in engagement scores year on year. Read more in Employee Engagement (page 105).

Graduate Program

Orica has 96 graduates in its development program around the world, of which 31 percent are women. As a result of specific initiatives to increase numbers of female graduates, the percentage of women in our Australia and New Zealand 2011 intake has improved to 45 percent. With graduate programs now being run in Australia, New Zealand, Asia and Latin America, our pipeline of international talent is also increasing. This year, three international rotations were sponsored under Orica's diversity program with two Latin American graduates coming to Australia and one Australian graduate rotating to Latin America. Orica also offers scholarships to university students in Australia, New Zealand, Asia, Latin America and North America. Orica's

Australian and New Zealand graduates established the Graduate Sustainability Committee and aim to expand globally in 2012.

Read more in our case study Global Graduate Program (page 123).

Global Values Program

The international diversity of our senior leaders is an important part of our broader Diversity Strategy. The Global Values Program is an important leadership development initiative for international leaders and those managing culturally diverse teams. The program aims to empower our senior leaders to use the diversity of their own backgrounds and perspectives, and that of their team, in our key operating regions around the world. The program centres around two key areas; how Orica can leverage diversity to drive growth in our regions of operation, and how our international leaders can ensure our core values are embedded around the world. Participants explore the sources of cultural difference and the types of strategies that can be used to adapt to and integrate these differences to drive business performance.

Diverse Representation & Remuneration Ratios

Orica has had continued female representation on its Board since 1998. For a number of years Orica had two female directors; following a recent retirement this has reduced to one. The representation of women on our Board remains a key priority for Orica. Global representation on our Board is also an important aspect of our Diversity Strategy and during 2010 we announced the appointment of two new international non-executive directors.

In 2011, the Orica Women in Leadership network was introduced. The network aims to embrace diversity to drive sustainable global growth. Read more in our case study Women in Leadership (page 125).

The ratio of basic salary and remuneration of our male and female employees across Australia and New Zealand is detailed in the Basic Ratio of Salary which can be downloaded by visiting http://www.orica.com/sustainability/files/2011PeopleComm/Orica_Ratio_of_Basic_Salary.pdf. We are currently developing systems to review salary ratios throughout our other regions of operation. We have analysed remuneration patterns globally for senior management and found no disparity between male and female salary patterns.

Global Indigenous Strategy

Orica introduced its Global Indigenous Strategy in 2011. Led by Orica's Indigenous Advisory Council, the strategy will focus on increasing cultural awareness, building relationships with local communities and creating sustainable opportunities. Cross business, regional action plans have commenced in three regions and will be rolled out to more regions in the future.

Appropriate Work Environment

We strongly believe that all people have the right to work in an environment free of discrimination and harassment. We will not tolerate harassment of our employees or members of the general public. We support an individual's right to object to harassment or discrimination and undertake to protect people who use this right responsibly against backlash or subsequent unfair treatment.

Apart from normal manager/employee communication channels as an avenue for raising issues, Orica operates an externally managed Speak Up Line which allows employees to raise any issues of concern.

During the reporting period there were two allegations of discrimination made to the Orica Speak Up Line by employees who had been terminated or stood down. They were investigated and both were found to be unsubstantiated and no further action was taken. Read more about our Speak Up Line in Governance at Orica (page 19).

The importance of appropriate workplace behaviour is reinforced through the Deliver the Promise principles and is incorporated into the Company's performance management process. Appropriate Workplace Behaviour training is scheduled for new starters and refresher courses are available as required. Some businesses now offer this training online.

Commitment to Employment

Although Orica does not provide union information, employees are free to join unions and other associations. Orica work sites range from completely non-unionised to entirely unionised. All Orica contractors are subject to the same opportunities and conditions as Orica staff. Upon offer of employment, new staff are required to commit to Orica's Deliver the Promise principles and behaviours. They are also required to adhere to Orica's Code of Conduct which prohibits discrimination and harassment. All staff sign a SH&E Charter which commits them to engaging in safe and environmentally responsible work practices. Read our SH&E Charter by visiting http://www.orica.com/sustainability/files/2011SHE/Orica_SH&E_Charter.pdf.

Around 50 percent of our employees are covered by collective bargaining agreements.

Orica has adopted a consultative approach to advising employees about operational changes that affect them. While the minimum notice period varies between business units, the Company as a whole aims to inform employees about relevant changes as soon as practicable.

Our SH&E Model Procedures require that all of our employees are represented in formal SH&E committees.

Each Orica business group has a dedicated Human Resources department that can handle employee grievances and complaints. In addition, the Company operates the Orica Speak Up Line, which is an independent service providing employees with the opportunity to confidentially raise issues of concern. Read more about our Speak Up Line in Governance at Orica (page 19).

Workplace Flexibility

Orica values its people and is committed to providing and maintaining a flexible work environment. We aim to enable employees to manage their work, family and lifestyle responsibilities while maintaining business requirements. We understand that employees work more effectively when their life is in balance and recognise that employees have different needs and personal commitments.

Workplace flexibility is about thinking innovatively about the way employee's working conditions are structured. It is an approach whereby managers and employees work together to agree on workplace arrangements that are suitable for both the employee and business requirements. Benefits include:

- Attracting and retaining skilled and motivated employees;
- Increased productivity by more energetic and focused employees;
- Reduced absenteeism;
- Increased employee engagement, satisfaction, trust and respect; and
- Improved work-life balance.

Orica's Flexible Work Practice Policy covers part-time employment, job sharing arrangements, flexible working arrangements, flexible return from family leave, flexible arrangements for ongoing care, phased retirement and working from home.

Family (Maternity/Paternity/Eldercare) Leave

Orica offers family leave in line with legislative frameworks around the world. We keep in touch with those on family leave to ensure that they are kept abreast of Company developments and initiatives while they are absent and to encourage their return to work.

A return to work discussion is held prior to the employee commencing their leave to ensure that both the Company and the individual can work together to try and accommodate the specified requirements upon the employee's return. This involves possibilities around part time work, phased return and potentially changing positions.

In 2011 in Australia and New Zealand, only females took family leave. Of these, 79 percent of employees returned from family leave, slightly higher than the 77 percent that returned in 2010. Of these, the majority (70 percent) chose to return to part time roles. 26 percent of those returning chose to return to full time roles immediately on their return from family leave and the remainder returned to casual positions. Most employees returning from family leave rated the Orica Leave Policy highly.

Orica also recognises that employees have a wide range of family obligations, such as the care of an older relative or close family member. Eldercare kits for Australia are renewed and updated annually and are available to staff via their human resources advisor. Further marketing around the Eldercare and Childcare kits for Australian employees will take place in 2012, raising the awareness of their availability.

Staff Training & Development

Orica understands that training and development of employees is an ongoing process. We provide ongoing skills and technical training to employees, from induction and throughout their employment, with mandatory annual or biannual refresher training in many competency areas. In addition to job or role specific (technical) competency and skills training, Orica also provides leadership development programs at frontline/supervisory, managerial and strategic leadership levels. Attendance at such programs is voluntary, but strongly encouraged and managed via employee career/personal development planning processes. Orica has an education/training policy covering programs run externally, including higher education programs, and full or part funding of such programs is available subject to management discretion.

All employees in managerial/supervisory, professional, technical and administrative roles participate in our annual performance management process, which incorporates individual career development planning as part of the mid-year review process. The vast majority of these employees also participate in a Short Term Incentive scheme, in which additional financial incentives are awarded to staff based on company and individual performance.

In terms of career transition, it is common practice at Orica to provide outplacement support to employees who are leaving the company due to restructuring or reorganisation. Outplacement support can include assistance with preparation of resumes and employment applications, pre-interview coaching and job search assistance for a pre-defined period.

In addition to technical training specific to jobs, the Company offers a range of other training to develop individuals for their current and future roles within the organisation.

Job vacancies within Orica are listed on the Company intranet.

Employee Assistance Program

From time to time, employees may have issues in their personal lives which impact on their health, wellbeing and ability to perform their work effectively. Such issues can range from drug or alcohol dependence of the employee or of a family member, to marital breakdown. Orica offers assistance to these employees. This assistance includes:

- Referral or self referral to an Occupational or Employee Assistance Service (i.e. professional counsellor); and
- Chaplaincy Service.

Our Employee Assistance Program (EAP) in Australia continues to be used by employees in need. A total of 136 people used the EAP program in 2011 (116 employees and 20 family members). This represents a periodic usage rate of 5.2 percent (an increase from 4.3 percent in 2010).

The 136 employees comprised 122 new clients, and 14 continuing with the service from the previous year. The average age of those using the service was 38. More males (67.9 percent of the client group) use the service than females, reflecting the overall group employee profile. The Company is currently exploring options for extending this service to other countries.

Human Rights

Increasingly, Orica businesses are operating in more remote regions. We have operations in more than 50 countries and sell into many others. It is critical that we succeed in promoting our core values to customers and employees in these regions, while remaining responsive to their concerns about the future of the environment and the communities in which they live. We see our social responsibilities as being complementary to our financial performance and a critical component of both our licence to operate in all regions of the world and our ability to attract and retain the best employees.

Orica takes all reasonable steps to ensure that we don't employ child, forced or compulsory labour and that we do not engage suppliers who employ child, forced or compulsory labour. Our Code of Conduct requires that we "comply with the letter and spirit of the laws affecting Orica's businesses". We do not currently operate in any countries where these practices are condoned. Read more about our Code of Conduct in Governance at Orica (page 19).

We have consistent policies in place globally to ensure reasonable working hours and conditions and minimum age for employment.

In 2011 we did not receive any complaints of child, forced or compulsory labour.

Integration of Sustainability

With the broadening of Orica's sustainability strategy to include focus areas of People & Community and Product Stewardship as well as the traditional focus area of SH&E, we recognise that our employees and the work they undertake has an impact on our sustainability performance. Personal performance is managed through annual objectives and periodic performance reviews. Objectives are categorised under the four Deliver the Promise principles as our culture is recognised as the means to make Orica a more sustainable organisation. Our aim is to have all of Orica's salaried staff with formalised annual objectives.

Community Engagement

All of our major sites have a designated community liaison officer who establishes and maintains relationships with the local community.

Orica is a signatory to the Responsible Care[®] Community Right to Know Code of Practice. We have incorporated the commitments of the Responsible Care[®] Guiding Principles and the requirements of the Codes of Practice in our Safety, Health and Environment (SH&E) Management System. This system is adopted by all Orica operations. Read more in SH&E Management (page 59).

Major sites have programs in place to communicate their SH&E performance to their neighbours on a regular basis. In addition our SH&E Model Procedures require that the following information is made available to the community:

- Site inputs, processes and outputs and materials stored onsite;
- Material Safety Data Sheets for hazardous materials onsite;
- Transportation to and from the site;
- Waste treatment and disposal;
- Licences and permits from statutory authorities;
- Fugitive and licensed emissions to the environment;
- Reportable incidents involving the site or its products;
- Future plans for the site and products, including the site SH&E improvement plans;
- Emergency response arrangements;
- Aggregated occupational health monitoring data;
- Risk assessment results; and
- Industry profiles of compliance with the Responsible Care[®] codes.

Chemical Release at Kooragang Island, New South Wales, Australia

On August 8, an incident occurred at our Kooragang Island ammonia plant which resulted in an amount of sodium chromate containing hexavalent chromium being released, traces of which were found in northern parts of the adjacent Stockton neighbourhood. Orica regrets the incident and is working with authorities and the community to rebuild trust around its operations. A clear message has been sent to Orica that the Stockton and wider community expect more information on the site in a timely manner and greater engagement with Orica. We are committed to meeting the expectations of improved community engagement and are working with the Orica Kooragang Island Community Reference Group to develop improved engagement practices with the community. Read more at www.oricaki.com.au.

Read more about how Orica engaged with the community in our case studies:

- Orica Makes a Difference (page 115);
- Relay for Life (page 119);
- Food for Thought (page 124);
- Helping Out the Fire Service (page 126);
- Yarwun Helps Save Lives (page 127);
- Giving & Living (page 128); and
- Learning While Playing (page 132).

Community Contributions

Orica's corporate donations program is funded to the equivalent of dividends payable on a shareholding of 0.5 percent of ordinary Orica shares. In 2011 Orica donated approximately \$1.5 million to various community programs.

Orica makes contributions aligned to eight principles for donations and focusing on three priority areas - the environment, science and engineering and education with a particular emphasis on science education. Orica also has an employee workplace giving program which matches employee donations up to a certain value across twelve charities selected by our employees.

In 2011 Orica supported the following organisations:

- The Nature Conservancy - The Nature Conservancy's mission is to protect the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. In 2011, Orica continued its support of three of the Nature Conservancy's key programs - Shifting Burning Regimes in Northern Australia, Lomas de Atiquipa Reserve, Peru, and the Mediterranean Chile Conservation Program;
- The National Youth Science Forum - Orica is a corporate partner of the National Youth Science Forum, which runs camps for 450 of Australia's best and brightest Year 12 science students each year. The Forum is designed to foster the next generation of leading science researchers and practitioners. In 2011, Orica increased its involvement, sending members of the graduate program along to the camps to discuss the program and graduate opportunities with the students;
- The Australian Science Media Centre - The Centre supplies high quality and timely scientific information to journalists with the aim to better inform public debate by improving links between the media and the scientific community;
- The Australian Academy of Technological Sciences and Engineering - Orica is a major sponsor of the Science and Technology Education Leveraging Relevance project, providing curriculum materials for secondary science courses; and
- Internal scholarships - An internal scholarship program funding students around the world in areas of study related to Orica's business.

In addition to these planned sponsorships, Orica also made major donations in response to the following natural disasters:

- Queensland Floods, Australia;
- Victorian Floods, Australia; and
- Brazil Floods.

Orica does not make political donations.

Read more about our community contributions in our case studies:

- University Partnership in India (page 121); and
- Global Conservation (page 131).

Community Complaints

Orica welcomes feedback from the community. All sites are required to record, investigate and address community complaints.

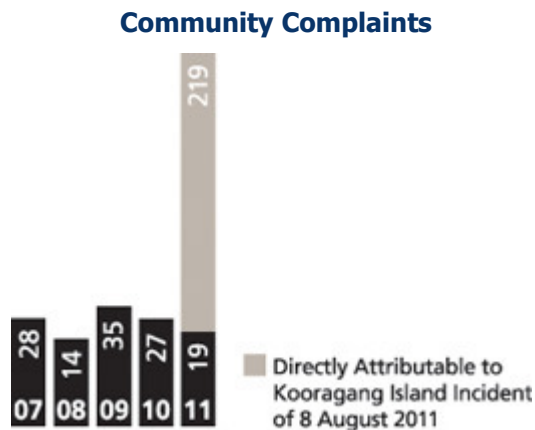
We received 238 justified complaints in 2011 (refer Graph 28).

While we achieved a reduction in complaints received through our internal safety, health and environment reporting system (19 for the year compared with 27 in 2010), of the total 238 complaints, 219 (92 percent) were directly attributable to an incident that occurred at Orica's Kooragang Island site in August.

Specifically, the 219 complaints, queries, concerns and information requests were received through our Kooragang Island community hotline (phone and email system) and via a series of community meetings. They include contact from the community in relation to the incident as well as cleanup activities undertaken following the incident. The incident involved the release of an amount of sodium chromate containing hexavalent chromium from the Kooragang Island site in New South Wales, Australia this year, traces of which were found in northern parts of the adjacent Stockton neighbourhood. We invited the community to contact us via the community hotline and email for information concerning the incident. We are also holding a series of community meetings to hear feedback directly from the local community and provide them with information. Read more in www.oricaki.com.au.

Of the remaining 19 complaints the majority related to noise and site plumes/fugitive emissions, including nitrogen oxide plumes.

Orica remains vigilant in the conduct of our global operations. All complaints are investigated, causes are identified and actions taken to avoid further community concern.



Graph 28.

Note, 2010 data has been revised to exclude complaints relating to DuluxGroup. DuluxGroup was demerged from Orica in July 2010.

People & Community

Case Studies

2011

Case Study: Orica Makes a Difference

Orica Global

Throughout the year Orica employees have been raising money and donating handmade goods to help those in need around the world.

Orica's Sudbury team taking part in the Miners for Cancer Hockey Challenge

An Orica team from Sudbury, Canada, took part in the 15th annual Miners for Cancer Hockey Challenge in January, an event which raised nearly CA\$63,000 for cancer research. The team was made up of employees from Sudbury's supply chain and commercial functions, as well as Orica customers and family members.

Caz Taback, customer support technician, said he had been involved with the challenge for a number of years. "I have been part of Miners for Cancer for the past three years as a member of the Board of Directors. I am also a 20-year survivor of cancer," he said.

"The field of 16 teams was made up of mining manufacturers, suppliers and customers from Northern Ontario and made for an exciting competition. It was great to see one of our bulk technicians, Darryl Williamson, awarded the Most Sportsman-Like Player of the Tournament."



Orica's Sudbury hockey team ready for action in the Miners for Cancer Hockey Challenge.

Raising money for the Starlight Foundation in north-east Australia

Our sites in north-eastern Australia raised more than \$5,600 for the Starlight Foundation, an Australian organisation supporting seriously ill children.

P.J. "Krusty" Wells, Orica Mining Services operations superintendent, accepted a challenge to grow a "comb-over" hairstyle to raise money for the Foundation.

The personal challenge was part of a wider initiative, aimed at building a strong relationship between Orica and the Starlight Foundation, with team members from the north-east region recently attending a morning tea at the Mater Children's Hospital.

More than \$5,600 was donated in support of the Foundation, due to the strong support of the north-east region team, as well as the Kurri Kurri and Newcastle raffles in New South Wales.



As the challenge progressed, P.J. began to resemble Krusty the Clown.

Quilt-a-thon for families in Japan

Northwest Energetic Services (NES), a joint venture of Orica USA, made a thoughtful contribution to our friends and co-workers in Japan after learning of the devastating 2011 tsunami.

Debra Hanson and her fellow staff members held a quilt-a-thon, crafting beautiful, handmade quilts to send to the families devastated by the earthquake and resulting tsunami.



From left to right: Linda Padberg, Dorian Hill, Jennifer Edgington and Debra Hanson with their handmade quilts.

Case Study: Keeping Business Going

Orica Chemicals Christchurch, New Zealand

Orica Chemicals has worked hard to restore their warehouse and help their suppliers and customers in a time of need after two devastating earthquakes in Christchurch, New Zealand.

On Saturday 4th September 2010 a magnitude 7.1 earthquake struck Christchurch without warning at 4.35am. Thankfully no lives were lost. The city was severely damaged with many buildings destroyed or damaged and infrastructure seriously compromised.

Fortunately, the Orica Chemicals warehouse was not damaged structurally, but the pallet racking inside had been bent and buckled. Orica staff had a busy night dealing with damage to their homes and anxious family members. The next morning the first management team were onsite by 8am to check the warehouse and assess the situation.

A group of employees, including warehouse, operations and sales personnel gathered onsite and cleanup work commenced after appropriate safety, health and environment assessments were complete. The cleanup took four days and continued over the weekend. It was a laborious and methodical manual handling task that was frequently interrupted by aftershocks. The sales staff all worked together to ensure all debris and racking was cleared.

Although Christchurch city was effectively shut down, other areas outside the immediate earthquake affected region were still fully operational and relying on deliveries from the Orica warehouse. Whilst the cleanup was still in progress, arrangements were made to ensure urgent deliveries were able to be despatched from the site - especially for products like chlorine, needed for water treatment, and lubricants for vital machinery and equipment.

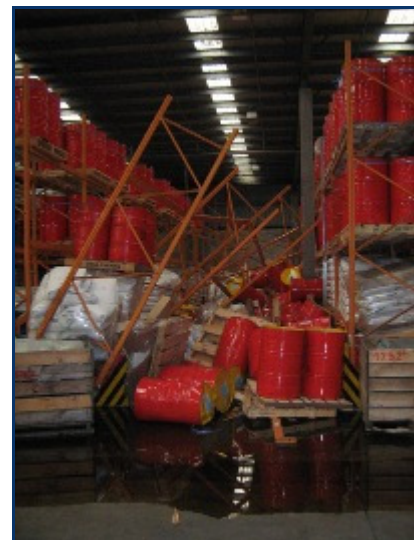
Just when life was returning to normal, on Tuesday 22nd February 2011, another 6.3 magnitude earthquake struck Christchurch City at 12:45pm, killing 181 people. The earthquake also devastated further parts of the city that had already been badly affected by the previous earthquake only months earlier. Over 900 buildings in the central business district (CBD) have subsequently been demolished because of damage.

Fortunately, no Orica Chemicals personnel were injured and the warehouse was unaffected as the previously damaged pallet racks had been removed, meaning no products were stored at height. However, a number of Orica's key customers were affected by this earthquake, especially Lion Brewery Canterbury, whose site is located in the CBD area.

The Canterbury brewery produces beer, utilising Orica Chemicals' "Clean in Place" (CIP) products to ensure the quality of their finished products. As a result of significant earthquake damage, the 10,000 litre bulk CIP tanks were unsafe and inaccessible, so the brewery asked Orica to find a solution that would allow them to keep the less damaged part of their plant operational. Within an hour of this request, the Orica Chemicals team and brewery staff implemented a plan to utilise 1,000 litre intermediate bulk containers as an interim solution and the plant was able to commence CIP cleaning on their bulk tanks and beer keg line before the hour was up.



The Chemicals warehouse sustained damage to pallet racking which had to be methodically cleared.



Canterbury Brewery also experienced damage to the building housing their malt extract manufacturing plant. The Orica Chemicals team were asked at short notice to install CIP equipment to evaporators relocated from the damaged building. This quick action ensured the customer could meet their production and delivery requirements despite the effects of the earthquake.

Orica Chemicals continues to work with suppliers and customers to recover from the devastating Christchurch earthquakes.



At the Lion Brewery, the soil underneath the thick concrete slab in the yard emerged during the earthquake. Quick action by the Orica team enabled the site to restart production.

Case Study: Relay for Life

Orica Global

Thirty-nine Orica employees participated in Relay's for Life to raise over \$16,000 for the New Zealand Cancer Society and Queensland Cancer Council.

In New Zealand on a rainy Saturday in March this year, Orica employees joined around 80 teams for the Relay for Life on Auckland's North Shore. The goal of the relay was to keep a team baton going around an athletics track continuously for 15 hours through the night! The event started late in the afternoon with the first lap around the track led by cancer survivors. Our three Chemnet teams - the BJ bandits, the Orica Knockouts and The Lubricators - kept each other company on the track and there was music and entertainment throughout the night to keep everyone amused (and awake!)

The team tent was a hive of activity with people coming and going all night to relieve other team members on the track, to dry off, eat, play cards and charades and where possible try to catch a few hours sleep!

The team had organised a range of fundraising activities in the weeks before the relay, including raffles, sausage sizzles, book sales, a party, an auction for a Shell Ferrari jacket, a "swear jar" in the lunch room, and donations were also received from family, friends and some generous suppliers.

In total, the New Zealand team raised over NZ\$6,600 for the New Zealand Cancer Society.



Members of the Orica Chemicals New Zealand team enjoying their rain-soaked Relay for Life.

In Queensland, Australia, employees from the Yarwun site in Gladstone and their families took turns keeping a baton moving among their team throughout the night on the local school oval. The Yarwun team put in an amazing effort, raising \$10,800 for the Queensland Cancer Council. Overall, the event raised more than \$200,000 to help fund research, support and education campaigns.



Orica's Yarwun team raised \$10,800 in their (sunny) Relay for Life.

Case Study: University Partnership in India

Orica Mining Services India

Orica Mining Services (OMS) has recently partnered with the Indian Institute of Technology Bombay and Australia's Monash University to sponsor the world-leading research academy, the IITB-Monash Research Academy.

Nearly 80 PhD students are based at the campus in Powai, India, focusing on research into clean energy, nanotechnology, biotechnology, infrastructure engineering, water and advanced computational engineering. OMS recently joined other major companies like BHP Billiton, Infosys and CSIRO as an industry partner, providing funding for students and an opportunity to provide input into research.

Richard Goodridge, global technology manager for OMS, said the partnership was a great opportunity to get a new perspective on how to better solve problems for the mining industry. "The students in India will be doing cutting-edge research. We are currently sponsoring four PhD students, three in the area of sustainability and the other in nanotechnology," Richard said.

"To prove real-world learning, we have established links with the laboratories at the Orica site in Gomia, India, and we expect the students will be able to visit some of our other sites during their degree. It is hoped that when these students graduate in three years, they will enter the Orica Global Graduate Program and bring with them a high level of expertise. This is just one of many alliances we have with various institutes around the world. It's important to embrace different ways of thinking to solve problems and provide innovative solutions for our customers. The more ideas we have to tackle problems, the better."

Indian Institute of Technology Bombay dean of international relations Professor Subhasis Chaudhuri said the new program would also strengthen the link between Australia and India. "The world-leading research and innovation that will ultimately grow out of this partnership will benefit India, Australia and the world. This will ensure we have talented graduates who can find solutions to the most pressing challenges facing society over the coming decades," Professor Chaudhuri said.

The research academy is expected to grow dramatically over the next four years, with 350 PhD students expected to enrol by 2015.

Case Study: Minova's Technical Training

Minova Asia

Minova's tunnelling and civil engineering teams from China, Hong Kong, Taiwan and south-east Asia met for an intensive week of product and application training to further their technical development.



Fifteen participants came together for the first time in Jianshan, a province outside Shanghai, to be trained in the application of Minova's products, project assessments and safety, health and environment topics relating to tunnelling and civil engineering. The team was led by experienced instructors from Minova's global tunnelling and civils team based in Germany.

Feedback from trainees, trainers and local management was very positive. The training is considered a cornerstone for growth in tunnelling and civil activities in the Asia region and will help Minova develop competent and highly motivated sales and application engineers, ready to meet our customers' needs.

Participants from Minova's Asian tunnelling and civil engineering teams receive hands-on training.



Minova's tunnelling and civil engineering teams from Asia celebrate after completing their training.

Case Study: Global Graduate Program

Orica Global

In 2011 Orica launched a new Global Graduate Strategy to align the existing regional programs and deliver a consistent and competitive global program.

The new program embodies our key business priorities and incorporates each of our business units, Orica Mining Services, Orica Chemicals, Minova and Corporate.

As part of the three year rotational program, graduates undertake three 12-month job roles in different locations and, where possible, across at least two of our business platforms. The program also provides ongoing technical and leadership development, building a sustainable supply of well-rounded future leaders for our technical, functional and leadership pipelines.

Key initiatives for the program this year have included the introduction of international rotations, a revised recruitment strategy and the launch of the Graduate Sustainability Committee.

International rotations were piloted with a small group of high performing, high potential graduates this year. These rotations are designed to develop global mindsets and diversity of perspective, important attributes for Orica's future leaders. The rotations also encourage knowledge sharing across regions and continue to provide technical and functional learning for the graduate. International rotations will again be offered to a selected group in the coming year.

A rigorous recruitment and selection strategy was put in place to ensure the organisation is recruiting for a consistent graduate profile, well suited to our business requirements and further graduate development opportunities.

A Graduate Sustainability Committee was established in the Australia/New Zealand region with a view to expand globally next year. The graduate-led committee aims to harness the ideas, creativity and leadership skills of Orica's graduates to make a difference in the areas of the environment, safety, health, well-being and community engagement.



Irene Fernandez recently completed Orica's Graduate Program and is now in a full time engineering position in Australia.

Read more about Orica's Graduate Program by visiting www.grads.orica.com.

Case Study: Food for Thought

Orica Australia

Five Orica sites in Australia worked together to donate around nine trolley loads of food to the World Food Day appeal.

Orica's Head Office in Melbourne collected 111 items including toiletries, 38 jars, 95 assorted tins, two packets of shortbread and 13 tins of ham, which were specifically placed in Christmas hampers. The value of the goods was valued over \$1,000.

All food collected in Melbourne was donated to the Mission House Fitzroy. Mission House distribute and serve food to thousands of needy individuals and families within the City of Yarra. During late November and December, Mission House distribute approximately 500 Christmas hampers in this region. Mission House was extremely grateful for the donation.

Our Botany site in New South Wales collected a massive 52 kilograms of food and goods. Based on industry averages, this quantity of food could provide 70 meals to families in need. The 52 kilograms was sent to Foodbank New South Wales at Wetherill Park. Foodbank is a charitable organisation which sources donated and surplus food from the food and grocery industry to distribute to welfare and community agencies that provide food assistance to people in need.

Our Kooragang Island, Kurri Kurri and Liddell sites, also in New South Wales, donated \$1,860 in cash and approximately three full trolley loads of food to Food4Life. This charitable organisation operates in the Hunter region of New South Wales and provides vulnerable people experiencing disadvantage with access to nutritional food.

Natalie Moore, sustainability coordinator and organiser of the Nicholson Street food drive said, "Overall, the food drive was a great success! We started with only one participating site but we received so much enthusiasm from around Australia, we ended up with five sites participating. This year we hope to get more sites involved after this fantastic result."



Orica's Head Office food drive team with the collected goods to be donated to Mission House Fitzroy.

Case Study: Women in Leadership

Orica Global

Orica is creating a formal network of current and emerging female leaders across platforms and geographies.

We have a vision of embracing diversity to drive sustainable global growth. Diversity is key to our future success given shortages of skills critical to our business, which means that we need to ensure we are leveraging the full pool of talent available to us. There is also a moral imperative to ensuring that all employees at Orica have an equal opportunity to realise their full potential regardless of demographic criteria such as gender, cultural background, age etc.

In the first half of 2011 a pilot program was launched to examine the impact of creating a formal network of current and emerging female leaders across platforms and geographies.

The Orica Women in Leadership Network included women from Australia, Asia, North and Latin America and Europe, across Orica Mining Services, Minova, Chemicals and Corporate, across functional areas such as operations, business management, marketing, human resources and finance, and at various levels of seniority. Given time zone constraints, two groups were created, comprising approximately of 20 to 30 women in each. Group one included women working in Australia, New Zealand and the Americas. Group two included women working in Australia, Asia and Europe.

To help give the program structure, the Catalyst Award-winning MyMentor program was used. MyMentor consists of a series of modules specific to common issues encountered by women in leadership roles. Monthly teleconferences were held to discuss specified modules, with each conference hosted by a senior woman in Orica, including non-executive director Nora Scheinkestel and group general manager of human resources and communications, Trisha McEwan. An online community was also established, to allow participants to discuss and share learning's, publish blogs and disseminate research materials.

The pilot program ran for six months, after which participants were surveyed about the impact and effectiveness of the program. 91 percent of respondents agreed or strongly agreed that the program had a positive impact on them personally. 75 percent felt that the program made them aware of personal strengths that were unknown to them. 95 percent felt the program should be continued, with 65 percent considering it would be most beneficial for women who are entering supervisory or managerial positions. 74 percent of participants reported they were more conscious of networking across the business as a result of having completed the program. When asked what they particularly enjoyed about the Orica Women in Leadership Network program, participant comments included:

- Engaging with positive, energised women, keen to share and make a difference;
- Open conversations and feeling included;
- The personal reflection regarding the modules. More over taking the time to reflect on my career and aspirations;
- The sharing of issues, concerns and finding out solutions together. To understand that every women who has made it to the top has gone through more or less the same challenges and learning from their experience on how to overcome it; and
- The MyMentor workbook with practical exercises and questions to answer. I also liked hearing from senior leaders on the strategies that have led them to success.

Clearly, this program had a positive impact on participants, and by extension, will benefit Orica. Given this success, the pilot program will be extended in 2012.

Read more about Orica's approach to diversity in Labour Practices (page 106).

Case Study: Helping Out the Fire Service

Orica Chemicals Mount Maunganui, New Zealand

Orica Chemicals at Mount Maunganui, New Zealand, has donated four tanks to the New Zealand Fire Service to assist with training needs.

"The purpose of the [New Zealand Fire Service] training centre is to provide a realistic training scenario to simulate real emergency incidents they would attend," said Kirk Teesdale, graduate mechanical engineer.

"The Fire Service approached Orica asking if we had any available tanks they could use for chemical incidents and confined space training. A total of four tanks were donated, three from a decommissioned ammonia site in Auckland and one from a customer's site. All career fire-fighters from New Zealand undergo training at this centre as well as more than 300 volunteer fire fighters who attend a recruit training course."

The project not only stopped tonnes of metal being sent to scrap, but also benefited the local community and saved the New Zealand Fire Service the cost of purchasing tanks - a truly sustainable outcome.



The donated tanks will be used to simulate confined space emergency situations.

Case Study: Yarwun Helps Save Lives

Orica

Yarwun, Australia

Orica's Yarwun site is situated in Gladstone, Queensland, Australia, a highly industrialised city with real potential for multiple injuries from industrial accidents. In 2011 Yarwun donated a \$3,600 medical instrument called the EZ-IO to the local Gladstone Hospital.

The EZ-IO aids in the emergency treatment of both adults and children who require immediate fluid or blood replacement. It allows medical professionals immediate access to the patient's circulatory system, meaning that within seconds they can deliver life saving medication, intravenous fluids and blood products.

The Gladstone Hospital had earlier applied to receive an EZ-IO machine through the public allocation system. The hospital was on the waiting list and expected to receive the machine after an estimated 18 month wait. Orica was made aware of the urgency of the request and chose to donate the machine instead. Within the first few months of having the EZ-IO, Gladstone Hospital used it twice in high trauma situations to save lives.

Orica is proud to be able to support the Gladstone Hospital with the provision of life-saving equipment that will be used to help save lives in the community in which we operate.



The EZ-IO machine allows medical professionals immediate access to a patient's circulatory system to administer life-saving medication, fluids and blood products.

Case Study: Giving & Living

Orica Global

Orica employees living and working overseas have interesting and diverse life experiences, but many are also contributing their time, skills and money to the communities where they live.

Here are some of the many and varied examples of the incredible volunteer work the Orica expatriate community has been involved in:

- Orica Mining Services in Kurri Kurri, New South Wales, Australia provided a Braille printer for the children at Colegio Hellen Keller, a school for blind and handicapped children in Santiago, Chile. The school has been able to print biographies of inspirational blind people around the world as well as children's classics, which have motivated and enriched the lives and imaginations of the students;
- The wider expatriate community, through Friends of Hellen Keller, funded a school bus for 20 students who were previously unable to attend school for financial or logistical reasons;
- English as a Second Language (ESL) classes have been set up by expatriates in Santiago, and in the Indonesian communities of Jakarta and Bontang. ESL has allowed expatriates to volunteer in less affluent locations and also provides a means of finding further local projects in which to become involved;
- In the poorer areas of Jakarta, private donors from Australia, including some from Orica, have funded the establishment of low cost, self-help schemes for families from the Nurani Insani school community, enabling them to earn enough money to buy food. In return, their children attend school every day and no longer work begging at the traffic lights. Children are able to help in these small family businesses before and after school. When (and if) a family can afford to repay its loan, the money is advanced to another needy family;



The Friends of Nurani Insani in Jakarta funded Nani (at a cost of US\$50) to purchase an old table and cooking ingredients to open this street stall.



Imran, Mulfi and Ryadi from the Bontang boy's orphanage.

- In Bontang, Orica has funded work at an orphanage for girls (Yayasan Panti Asuhan Aisiyah), to replace louvers in the windows with plain glass to stop wild monkeys from coming inside, stealing food and causing havoc; and
- The Bontang site is also helping the Bontang boy's orphanage by financing the repair of four previously non-functioning toilets. Plans are also under way to provide a clean, safe outdoor area. Orica employees and private donors have recently purchased more bedding so that the children sleep more comfortably.



Orica's expat community in Bontang volunteer at the orphanage for girls. Volunteers photographed with the girls include Orica employee spouses Deb Petrie, Maria Mercedes-Mata, Laura Martinez, Nid Ter, Beth Caughey and Julie Barnett.

Case Study: Student Miners

Minova

Essen, Germany

Minova welcomed nine miners in February from Svalbard in northern Norway for a study tour of our manufacturing site in Essen, Germany.

The miners are working at Norwegian coal mining company Store Norske Spitsbergen Kulkompani, a customer of Minova since 2001. The trust built up between Minova and Store Norske over the past 10 years led to the visit of the miners, who are from the Svea and Longyearbyen mines.

The visit to Minova was an opportunity to learn directly from a manufacturer about using bolting and injection techniques to improve productivity and safety in underground mining. All nine miners are training to become geotechnical engineers.

The group met up with Minova employees to visit one of the few still active coal mines in Germany, Ibbenbüren. The next day, the group visited Minova's laboratory and production facility at Essen. The nine miners enjoyed their visit immensely and thanked the Minova staff for their assistance.

Minova is proud to sponsor part of this trip and believes in supporting people who are taking the initiative to create a safer workplace in mining and underground work.



The miners from Svalbard on their tour of Minova's Essen site and a local coal mine.

Case Study: Global Conservation

Orica Global

Orica has donated \$470,000 to the Nature Conservancy for conservation programs in Peru, Chile and Australia to help preserve natural environments, wildlife and people.

Peru

The coastal deserts of southern Peru are under increasing pressure from growing populations and urbanisation, which places extreme demands on natural resources. Our donation is helping to conserve, restore and promote the sustainable use of more than 52,000 hectares of the rare and threatened region of Atiquipa Lomas. Not only is this improving the environmental future of the area, it also is benefiting 80 families who live in the region.

Chile

In Chile, work is under way to pursue a national policy to establish conservation covenants for the country's native forests, which are legally recognised by the Chilean Government. Our support of this project is enabling employees to provide technical assistance to communities and landowners to conserve native forests and other unique habitats. This will encourage other landowners to follow suit, helping to create a more sustainable way of life for Chileans.

Australia

Our donation is supporting the Northern Australian Arnhem Land Fire Program, identifying biodiversity and social benefits that flow from appropriate fire management. Although small, controlled burns are beneficial to northern Australia's vast savannah grasslands, destructive late season wildfires have become a significant problem. The program seeks to restore healthy fire regimes, with Indigenous rangers using a combination of cutting-edge science and traditional ecological knowledge to carry out small, regular early season burns that help the landscape to regenerate and reduce the likelihood of large, more intense late season wildfires. The program is also substantially reducing carbon emissions and providing sustainable livelihoods for local Indigenous people.

Orica is proud to partner with The Nature Conservancy in this shared commitment to conserving the world's precious natural heritage and sustaining the wellbeing of the people who depend on it most.



Manwurrk Rangers lay a fire break for the traditional management of country on the Warddeken and Djelk Indigenous Protected areas in Arnhem Land, Northern Territory. © 2009 Peter Eve.

Case Study: Learning While Playing

Orica Mining Services Colombia

Earlier this year, Orica Mining Services (OMS) Colombia entered into a partnership with Corporación Día de la Niñez (Children's Day Corporation (CDN)), called the Gamarra Project in an effort to work towards ensuring the sustainability of their local communities.

The aim of the project is to connect with local communities by focusing on children's development, improving their quality of life and increasing their environmental conscience to try and build a better future for their country's society.

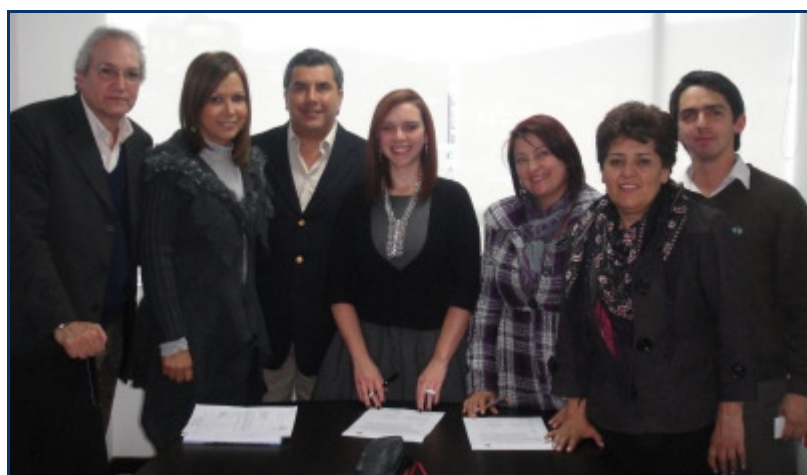


Children from Gamarra playing and sharing quality time with their families and friends, guided by CDN personnel and accompanied by Orica Colombia employees.

Established in 1999, CDN is a non-governmental organisation from the education sector who specialise in playful methodologies to educate, interact with and counsel children with the intention of assuring that society understands the important role they play in their communities and families.

Through this partnership, OMS Colombia has contributed to the development of over 250 girls and boys and their families.

Together, OMS Colombia and CDN will continue to work together to provide children in their local communities with the tools needed to create a better future.



Signature of the Starting Act for the Gamarra Project between Corporación Día de la Niñez and Orica Colombia S.A.S.

GRI Index, Previous Reports & Feedback 2011

Global Reporting Initiative (GRI) Index

Orica's 2011 Sustainability Report has been written in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, Version 3.0 & 3.1. The Report has been checked by the GRI organisation to confirm it meets the requirements for the B GRI Application Level. We believe it represents a balanced and reasonable presentation of our organisation's economic, environmental and social performance.

Read our GRI Application Level Statement by visiting http://www.orica.com/sustainability/files/2011OtherNav/Orica_2011_GRI_Statement.pdf.

The following table details the GRI Indicators. Indicators are fully reported on unless noted as partially reported or not reported. Read more about GRI at www.globalreporting.org.

GRI Standard Disclosure	GRI Indicator	Reference
Strategy and Profile		
Statement from the most senior decision-maker of the organisation.	1.1	CEO Message (page 2)
Description of key impacts, risks, and opportunities.	1.2	Key Challenges (page 6)
Organisational Profile		
Name of the organisation.	2.1	Our Approach to Reporting (page 25)
Primary brands, products and/or services.	2.2	How We Contribute (page 4)
Operational structure of the organisation, including main divisions, operating companies, subsidiaries and joint ventures.	2.3	How We Contribute (page 4)
Location of the organisation's headquarters.	2.4	Our Approach to Reporting (page 25)
Number of countries where the organisation operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	2.5	How We Contribute (page 4)
Nature of ownership and legal form.	2.6	Our Approach to Reporting (page 25)
Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	2.7	How We Contribute (page 4)
Scale of the reporting organisation.	2.8	How We Contribute (page 4) Our Economic Impact (page 14) People & Community Overview (page 101) View Orica's Balance Sheet on page 48 of the Annual Report by visiting http://orica.onlinereports.info/ . Orica operates more than 250 sites worldwide.
Significant changes during the reporting period regarding size, structure or ownership.	2.9	Our Approach to Reporting (page 25)
Awards received in the reporting period.	2.10	Recognition & Awards (page 24)

GRI Standard Disclosure	GRI Indicator	Reference
Report Parameters		
Reporting period (e.g. fiscal/calendar year) for information provided.	3.1	Our Approach to Reporting (page 25)
Date of most recent previous report (if any).	3.2	Previous Reports (Page 147) Our Approach to Reporting (page 25)
Reporting cycle (annual, biennial, etc.).	3.3	Our Approach to Reporting (page 25)
Contact point for questions regarding the report or its contents.	3.4	Feedback (page 148) Our Approach to Reporting (page 25)
Process for defining report content.	3.5	Our Approach to Reporting (page 25)
Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	3.6	Our Approach to Reporting (page 25)
State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	3.7	Our Approach to Reporting (page 25)
Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organisations.	3.8	Our Approach to Reporting (page 25)
Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	3.9	Our Approach to Reporting (page 25)
Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g. mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	3.10	Our Approach to Reporting (page 25)
Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	3.11	Our Approach to Reporting (page 25)
Table identifying the location of the Standard Disclosures in the report.	3.12	GRI Index (page 134)
Policy and current practice with regard to seeking external assurance for the report.	3.13	Our Approach to Reporting (page 25)

GRI Standard Disclosure	GRI Indicator	Reference
Governance, Commitments and Engagement		
Governance structure of the organisation, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organisational oversight.	4.1	Leadership at Orica (page 21)
Indicate whether the Chair of the highest governance body is also an executive officer.	4.2	Leadership at Orica (Orica Limited Board) (page 21)
For organisations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	4.3	Leadership at Orica (Orica Limited Board) (page 21)
Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	4.4	Stakeholder Engagement (page 11)
Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organisation's performance (including social and environmental performance).	4.5	Leadership at Orica (page 21) Labour Practices (Integration of Sustainability) (page 106)
Processes in place for the highest governance body to ensure conflicts of interest are avoided.	4.6	Leadership at Orica (Orica Limited Board) (page 21)
Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation's strategy on economic, environmental, and social topics.	4.7	Leadership at Orica (Orica Limited Board) (page 21)
Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	4.8	Governance at Orica (Code of Conduct) (page 19)
Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	4.9	Leadership at Orica (Orica Limited Board) (page 21)
Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	4.10	Leadership at Orica (page 21)
Explanation of whether and how the precautionary approach or principle is addressed by the organisation.	4.11	Governance at Orica (Risk Management) (page 19)

GRI Standard Disclosure	GRI Indicator	Reference
Governance, Commitments and Engagement (continued)		
Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses.	4.12	Participation & Commitments (page 39)
<p>Memberships in associations (such as industry associations) and/or national/international advocacy organisations in which the organisation:</p> <ul style="list-style-type: none"> • Has positions in governance bodies; • Participates in projects or committees; • Provides substantive funding beyond routine membership dues; or • Views membership as strategic. 	4.13	Participation & Commitments (page 39)
List of stakeholder groups engaged by the organisation.	4.14	Stakeholder Engagement (page 11)
Basis for identification and selection of stakeholders with whom to engage.	4.15	Stakeholder Engagement (page 11) Our approach to stakeholder identification, planning and conducting engagements and responding and measuring is outlined in our internal Group Safety, Health and Environment (SH&E) Standard GS 3 Communication and Consultation. Our key stakeholders are also identified in our SH&E Policy
Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	4.16	Stakeholder Engagement (page 11)
Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting.	4.17	Stakeholder Engagement (page 11) Our Approach to Reporting (Feedback) (page 25)

GRI Standard Disclosure	GRI Indicator	Reference
Disclosure on Management Approach EC		
Economic performance.	Aspects	Our Economic Impact (page 14)
Market presence.	Aspects	How We Contribute (page 4)
Indirect economic impacts.	Aspects	Our Economic Impact (Indirect Economic Impact) (page 14)
Disclosure on Management Approach EN		
Materials.	Aspects	The Product Life Cycle (page 34) Product Safety (partially reported) (page 42)
Energy.	Aspects	Energy & Greenhouse Gases (page 72)
Water.	Aspects	Water (page 76)
Biodiversity.	Aspects	Not reported
Emissions, effluents and waste.	Aspects	Energy & Greenhouse Gases (page 72) Waste (page 78) Spills & Emissions (page 80)
Products and services.	Aspects	Product Stewardship Overview (partially reported) (page 31)
Compliance.	Aspects	Environmental Management (page 70)
Transport.	Aspects	The Product Life Cycle (page 34) Distribution Incidents (partially reported) (page 45)
Overall.	Aspects	Product Stewardship Overview (page 31) Safety, Health & Environment Overview (page 58)
Disclosure on Management Approach LA		
Employment.	Aspects	Our People in 2011(page 103)
Labour/management relations.	Aspects	Labour Practices (page 106)
Occupational health and safety.	Aspects	Safety, Health & Environment Overview (page 58)
Training and education.	Aspects	Safety, Health & Environment Overview (partially reported) (page 58)
Diversity and equal opportunity.	Aspects	Labour Practices (Diversity) (partially reported) (page 106)
Equal remuneration for women and men.	Aspects	Labour Practices (Diversity) (partially reported) (page 106)

GRI Standard Disclosure	GRI Indicator	Reference
Disclosure on Management Approach HR		
Investment and procurement practices.	Aspects	Not reported
Non-discrimination.	Aspects	Labour Practices (Appropriate Work Environment) (page 106)
Freedom of association and collective bargaining.	Aspects	Labour Practices (Commitment to Employment) (page 106)
Child labour.	Aspects	Labour Practices (Human Rights) (page 106)
Prevention of forced and compulsory labour.	Aspects	Labour Practices (Human Rights) (page 106)
Security practices.	Aspects	Not reported
Indigenous rights.	Aspects	Labour Practices (Diversity) (partially reported) (page 106)
Assessment.	Aspects	Not reported
Remediation.	Aspects	Not reported
Disclosure on Management Approach SO		
Local communities.	Aspects	People & Community Overview Community Engagement (page 101)
Corruption.	Aspects	Governance at Orica (Due Diligence) (partially reported) (page 19)
Public policy.	Aspects	Governance at Orica (Political Contributions & Activities) (page 19)
Anti-competitive behaviour.	Aspects	Governance at Orica (Code of Conduct) (page 19)
Compliance.	Aspects	Governance at Orica (Due Diligence) (page 19)
Disclosure on Management Approach PR		
Customer health and safety.	Aspects	Product Safety (page 42)
Product and service labelling.	Aspects	The Product Life Cycle (page 34)
Marketing communications.	Aspects	Not reported
Customer privacy.	Aspects	Not reported
Compliance.	Aspects	Product Safety (page 42) Distribution Incidents (page 45) Emergency Response Service (page 43)

GRI Standard Disclosure	GRI Indicator	Reference
Economy		
Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	EC1	Our Economic Impact (Economic Value Generated & Distributed) (page 14)
Financial implications and other risks and opportunities for the organisation's activities due to climate change.	EC2	Climate Change Implications (page 16)
Coverage of the organisation's defined benefit plan obligations.	EC3	Our Economic Impact (Economic Value Generated & Distributed) (page 14)
Significant financial assistance received from government.	EC4	Not reported
Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	EC5	Not reported
Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	EC6	Not reported
Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	EC7	Not reported
Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	EC8	Not reported
Understanding and describing significant indirect economic.	EC9	Our Economic Impact (Indirect Economic Impact) (partially reported) (page 14)

GRI Standard Disclosure	GRI Indicator	Reference
Environment		
Materials used by weight or volume.	EN1	Not reported
Percentage of materials used that are recycled input materials.	EN2	Not reported
Direct energy consumption by primary energy source.	EN3	Energy & Greenhouse Gases (page 72)
Indirect energy consumption by primary source.	EN4	Energy & Greenhouse Gases (page 72)
Energy saved due to conservation and efficiency improvements.	EN5	Energy & Greenhouse Gases (Case Studies) (partially reported) (page 72)
Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	EN6	Energy & Greenhouse Gases (Case Studies) (partially reported) (page 72)
Initiatives to reduce indirect energy consumption and reductions achieved.	EN7	Energy & Greenhouse Gases (Case Studies) (partially reported) (page 72)
Total water withdrawal by source.	EN8	Water (page 76)
Water sources significantly affected by withdrawal of water.	EN9	Not reported
Percentage and total volume of water recycled and reused.	EN10	Water (page 76) (partially reported)
Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	EN11	Not reported
Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	EN12	Not reported
Habitats protected or restored.	EN13	Not reported
Strategies, current actions, and future plans for managing impacts on biodiversity.	EN14	Not reported
Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	EN15	Not reported
Total direct and indirect greenhouse gas emissions by weight.	EN16	Energy & Greenhouse Gases (page 72)
Other relevant indirect greenhouse gas emissions by weight.	EN17	Energy & Greenhouse Gases (page 72)

GRI Standard Disclosure	GRI Indicator	Reference
Environment (continued)		
Initiatives to reduce greenhouse gas emissions and reductions.	EN18	Energy & Greenhouse Gases (Case Studies) (partially reported) (page 72)
Emissions of ozone-depleting substances by weight.	EN19	Not reported
NOx, SOx, and other significant air emissions by type and weight.	EN20	Spills & Emissions (Chemical Releases) (page 80)
Total water discharge by quality and destination.	EN21	Water (page 76)
Total weight of waste by type and disposal method.	EN22	Waste (page 78)
Total number and volume of significant spills.	EN23	Spills & Emissions (Site Losses of Containment) (partially reported) (page 80)
Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	EN24	Not reported
Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and runoff.	EN25	Not reported
Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	EN26	Our Performance in 2011 (page 32) The Product Life Cycle (page 34) Value Chain Engagement (page 37)
Percentage of products sold and their packaging materials that are reclaimed by category.	EN27	Not reported
Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	EN28	Environmental Management (Environmental Compliance) (page 70)
Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce.	EN29	Not reported
Total environmental protection expenditures and investments by type.	EN30	Not reported

GRI Standard Disclosure	GRI Indicator	Reference
Social: Labour Practices and Decent Work		
Total workforce by employment type, employment contract, and region, broken down by gender.	LA1	Our People in 2011 (page 103)
Total number and rate of new employee hires and employee turnover by age group, gender, and region.	LA2	Our People in 2011 (page 103)
Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	LA3	Labour Practices (partially reported) (page 106)
Percentage of employees covered by collective bargaining agreements.	LA4	Labour Practices (Commitment to Employment) (page 106)
Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	LA5	Labour Practices (page 106)
Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	LA6	Labour Practices (Commitment to Employment) (page 106)
Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	LA7	Personal Safety (page 62)
Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	LA8	Occupational Health (page 67)
Health and safety topics covered in formal agreements with trade unions.	LA9	Not reported
Average hours of training per year per employee by gender, and by employee category.	LA10	Not reported
Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	LA11	Labour Practices (partially reported) (page 106)
Percentage of employees receiving regular performance and career development reviews, by gender.	LA12	Labour Practices (partially reported) (page 106)
Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	LA13	Labour Practices (Diversity) (partially reported) (page 106)
Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	LA14	Labour Practices (Diversity) (partially reported) (page 106)
Return to work and retention rates after parental leave, by gender.	LA15	Labour Practices (Family (Maternity/Paternity/Eldercare) Leave) (page 106) (partially reported)

GRI Standard Disclosure	GRI Indicator	Reference
Society: Human Rights		
Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	HR1	Not reported
Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	HR2	Not reported
Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	HR3	Not reported
Total number of incidents of discrimination and actions taken.	HR4	Labour Practices (Appropriate Work Environment) (page 106)
Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	HR5	Not reported
Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour.	HR6	Labour Practices (Human Rights) (page 106)
Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour.	HR7	Labour Practices (Human Rights) (page 106)
Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations.	HR8	Not reported
Total number of incidents of violations involving rights of indigenous people and actions taken.	HR9	Not reported
Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	HR10	Not reported
Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	HR11	Not reported

GRI Standard Disclosure	GRI Indicator	Reference
Social: Society		
Percentage of operations with implemented local community engagement, impact assessments, and development programs.	SO1	Not reported
Percentage and total number of business units analysed for risks related to corruption.	SO2	Governance at Orica (Due Diligence) (page 19)
Percentage of employees trained in organisation's anti-corruption policies and procedures.	SO3	Not reported
Actions taken in response to incidents of corruption.	SO4	Not reported
Public policy positions and participation in public policy development and lobbying.	SO5	Governance at Orica (Political Contributions & Activities) (page 19)
Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	SO6	Governance at Orica (Political Contributions & Activities) (page 19)
Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes.	SO7	Not reported
Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	SO8	Environmental Management (Environmental Prosecutions) (partially reported) (page 70)
Operations with significant potential or actual negative impacts on local communities.	SO9	Not reported
Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	SO10	Community Engagement (page 111)

GRI Standard Disclosure	GRI Indicator	Reference
Social: Product Responsibility		
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.	PR1	The Product Life Cycle (page 34) Product Safety (page 42)
Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	PR2	Not reported
Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	PR3	The Product Life Cycle (page 34) Product Safety (page 42)
Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.	PR4	Not reported
Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	PR5	Not reported
Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	PR6	Not reported
Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	PR7	Not reported
Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	PR8	Not reported
Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	PR9	Not reported

Previous Reports

Sections of our 2011 Sustainability Report and our previous Sustainability and SH&E Reports can be downloaded at www.orica.com/sustainability/index.asp?page=134.

Our previous Reports include:

- 2010 Sustainability Report;
- 2010 Energy Efficiency Opportunities Public Report;
- 2009 Sustainability Report;
- 2009 Energy Efficiency Opportunities Public Report;
- 2008 Sustainability Report;
- 2008 Energy Efficiency Opportunities Public Report;
- 2007 Sustainability Report;
- 2006 SH&E Performance Report;
- 2005 SH&E Performance Report; and
- 2004 SH&E Performance Report.

Feedback

We welcome your feedback on our 2011 Sustainability Report. You can contact us via email or phone.

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For more information on Orica's businesses, products and services, please visit www.orica.com or How We Contribute (page 4) where you will find links to each Orica website.

Thank you for taking the time to visit our 2011 Sustainability Report.