



11 December 2014

Dear Shareholder(s)

## Invitation to Attend AGM

You will have received a Notice of the Company's Annual General Meeting to be held at the offices of Sydney Capital Partners, level 6, 2 Bulletin Place, Sydney on 18 December 2014 at 8.00 am Australian Eastern Summer Time.

As permitted by Section 249S of the Corporations Act, a conference facility will be provided which should enable many shareholders to attend by video or audio. To attend by audio dial +61 2 8015 2088 (Australia) or +44 20 3695 0088 (UK), +1 646 568 7788 (USA) or +852 5808 6088 (Hong Kong) and enter the meeting code 56184290. To attend by video from your PC, Mac, iPhone, Android or similar devices pre-load and register with the Zoom service at [www.zoom.us](http://www.zoom.us) and then use the same meeting code.

Shareholders will appreciate that the timing of the Meeting has been scheduled so as to provide the best opportunity for our shareholders worldwide to attend the Meeting. We hope that those shareholders who are unable to attend personally will take advantage of this opportunity.

## Operational summary

During the past year the company has completed the series of test plant trials and provided 'proof of concept' with the successful demonstration of the Process. The past year also saw the formation of a joint venture with P T Antam, Indonesia's leading mining company, to establish a first commercial plant. These are significant achievements and, although the current climate is difficult, they have set the company up well for the future.

Following the signing of a Co-operation Agreement in 2012 with PT ANTAM, DNi agreed, in mid-2013, to form a joint venture with PT ANTAM for the development of the first DNi plant. The joint venture contemplated production of 20,000 tonnes per year of nickel and a capital cost of around \$700 million. Following the successful completion of the test work program in Perth late in 2013, the joint venture initiated a feasibility study for the new plant and formation of a corporate entity, PT Nikel Halmahera Timur in which our local 80%-owned subsidiary, PT Direct Nickel, now holds a 50% interest. NHT is currently appointing a financial advisor to assist in raising the \$10 million required to complete the feasibility study.

Promotion and marketing of the DNi Process has been an important area of activity in 2014 following the successful completion of the test work at the end of 2013. DNi and the Process have been introduced to a wide range of potential users and partners, particularly in China, Korea, Japan, Taiwan and Europe. We have also made inroads into the Philippines and are looking at project opportunities there. In Indonesia, while focusing on the PT ANTAM partnership, we have continued to seek out potential partners and co-investors, including for the NHT joint venture. In all of these activities, we have observed the lack of enthusiasm in the capital markets with project finance remaining elusive and investors harboring a high degree of risk aversion. Hopefully, this will change in 2015 as the structural shortage of nickel and higher prices drive new investment.

## Financial summary

In common with most technology development companies and junior companies in the mining and minerals processing industry, DNi has been capital dependent since it began in 2005. Since that time, the Company has raised over \$40 million from its shareholders, strategic partners, and research and development incentives, largely in the form of tax rebates. In 2012, as a result of a reverse takeover, DNi became a listed entity with the intention of seeking ASX re-quotation early in 2013. Re-quotation, when appropriate, will open up the potential for the Company to raise capital through listed public offerings and provide shareholders the liquidity and opportunity to trade their shares. Unfortunately, in recent years the Australian market has been poor as a source of capital for companies such as ours and liquidity in junior resource stocks has been limited.

Despite our progress over the past year it has been difficult to attract further finance and we have had to cut costs and seek support from our strategic partners and key personnel to maintain momentum. In particular, the Company raised \$1 million via a secured loan facility from Windward Prospects Limited, a shareholder of DNi. The loan plus interest is repayable in 2016.

As at the end of November, the Company's cash balance was \$174,579. Trade creditors (including personnel travel and other expenses) are in the order of \$60,000 and will be paid over the next couple of months. The Company's principal liability is employee entitlements and these are currently under re-negotiation.

In order to further reduce costs it has been decided to concentrate efforts in Perth where the technical team and test plant are based. Apart from four of our technical personnel in Perth who are working reduced hours, none of DNi's Australian-based management is currently being paid.

As a result of this the Sydney office will be closed. Some of the administrative functions and the registered office of the Company will be relocated nearby to the offices of Sydney Capital Partners from where the Company's secretarial and regulatory compliance functions are already managed by Vincent Sweeney and his team.

We will also close the Jakarta office, having already instituted a cost reduction program there. Our joint venture efforts in Indonesia will be handled directly with PT ANTAM and arrangements are being made for space to be allocated for the joint venture company, PT Nikel Halmahera Timur (NHT).

The demonstration plant and associated laboratory and office facilities in Perth have been preserved into 2015 following renegotiation of our agreements with CSIRO. In the absence of additional funding in 2015 it is likely that these facilities will need to be relinquished. In the meantime, we are very grateful for the continuing co-operation of CSIRO that continues to support the DNi Process Development as one of its Flagship Projects.

All of these actions are designed to ensure the Company remains solvent and is in a position to maintain its main assets, namely the Test Plant, key technical personnel, patents, and the JV with PT Antam.

## Indonesia

While Perth continues as the centre of the Company's technical and process development activities, Indonesia remains the focus of the program to build the first DNi Process Plant. The Company has always recognized that the goal of proving the DNi Process needs to be matched by a plan to roll out the first commercial plant.

Indonesia is increasingly the key to the world nickel market. It houses the world's richest and most accessible nickel laterite resources and is committed to the expansion of local processing and the development of secondary and tertiary industries. In 2009, the Government of Indonesia decreed that, from 2014, Indonesian ores, including nickel laterite, would need to be processed locally before export. This prompted stockpiling of ore by consumers, particularly in China, to feed the nickel pig iron (NPI) industry that had developed in China in response to the nickel price spike in 2007. For nickel miners, direct shipping of ore was a low cost, cash flow business and many were slow to anticipate the implementation and the effects of the export ban when it arrived, as planned, in early 2014. Unsurprisingly, the ban initially drove nickel prices up by over 50%. And now, an increasing amount of investment in low grade local processing to meet short term demand is underway. Our JV partner, PT Antam, has been impacted considerably in the short-

term by the reduction in cash flow from direct shipping operations (DSO) although it sees itself as a long-term beneficiary as it expands its production of processed ore. The ban has simultaneously incentivized local processing, including by PT Antam, while making financing of new, sustainable, processing facilities, more difficult.

2014 has been an election year in Indonesia. Parliamentary elections in April were followed by the Presidential election in July and President Jokowi was sworn in October. As a consequence, there has been considerable change in the bureaucracy as well as the parliamentary ministry itself and decision-making has been slow. This situation will improve over the coming months and as the demand for nickel in particular drives decisions on increasing local processing capacity.

We are in a prime position to have a joint venture with a strategic partner committed to improved processing technology and to an expansion of its production capacity. PT ANTAM also boasts what is arguably Indonesia's best portfolio of nickel resources.

### **The Nickel Market and the China Factor**

Enough has been written by commentators on the nickel market for observers to be agreed that the structural shortage of nickel units, long predicted, will begin late 2015 as Chinese stockpiles of high grade Indonesian ore run down. Even allowing for long delayed new production coming on stream, the shortfall in supply is expected to drive commodity prices up. But a very high and sustained nickel price (around \$25,000/tonne according to Macquarie Bank) is needed for alternative processes to generate a return. The Direct Nickel Process offers far superior economics in terms of a sustainable processing solution in the medium to long term.

China's demand for nickel units, mainly for its stainless steel industry, continues to drive the market. Despite a slowdown in the Chinese economy and the ability of Chinese consumers to stretch their stockpiles of high grade Indonesian ore by blending with lower grade ore imported principally from The Philippines, there is a clear acceptance that the Indonesian Export ban will remain in force and that new processing facilities will need to be built in Indonesia. Initially, Chinese producers like Tsingshan have moved to commission low cost NPI production and blast furnace technology. The low-grade nickel/iron product is just sufficient to meet the lowest threshold of nickel grade to comply with the present rules. By any measure, this sort of processing is unsustainable. It has very high operating costs and is environmentally questionable. But it is a short-term solution and does not demand significant capital. Indonesian government policy is awaited in this area and lower cost nickel production will be needed to preserve profitability.

Earlier this year, DNi received an offer from Tsingshan to build a small DNi plant in Indonesia. Subject to the plant meeting design and performance criteria, Tsingshan indicated an interest in building a larger plant in which DNi would have received a 30% interest. This proposal did not proceed in the face of the move by Tsingshan to the short term, low cost NPI alternatives and when the commercial terms sought by Tsingshan involved conditions unacceptable to DNi. We are maintaining high-level contact with Tsingshan and other Chinese and Asian consumers.

### **Mambare Joint Venture**

The joint venture with AIM-listed Regency Mines plc is currently operating on a care and maintenance basis under an agreement with Regency that has now relieved DNi of its contributions to the venture in the short term. A program for additional drilling to assist in resource definition will require around \$8-10 million to fund and in the current financial climate, this is not considered to be feasible. DNi's interest in the Mambare joint venture remains, for the time being, at 50%.

### **Intellectual Property**

DNi has a comprehensive patent estate with patents covering the DNi Process registered to country status in over 17 countries. We have retained patent attorneys in the USA and Australia to prosecute and to maintain this protection and intend to continue to do so. We are currently reviewing the estate with a view to cost savings where we think that these can be made. Our greatest concern is that the know how and trade secrets vested in our key personnel will, over time, be diminished if the Company is unable to retain these people.

## Personnel

Most companies are dependent for their success on their people and DNi is no different. We will endeavour to retain key technical and management personnel through the current difficult period in a way that balances short-term cash constraints with longer-term incentives. Securing funding for the NHT Indonesian Joint Venture will assist, as will the Company's success in its own fundraising.

The Company is also seeking arrangements with key personnel that will delay the liability for employee entitlements that would otherwise apply on termination. The support of all our people in this regard is gratefully acknowledged.

## Summary and Outlook

We have proven the technical efficiency and potential economic advantages of the DNi Process in a locked cycle demonstration plant that employs the full process flow sheet. At the same time, we have an established partnership with Indonesia's most prominent nickel company, 65% government-owned PT ANTAM. In a joint venture with PT ANTAM, we have a dedicated site for the first DNi Process Plant and have commenced a feasibility study for the Project.

Commercialization of new technology involves both the scientific challenges of proof of concept and, at the same time, embarking on a pathway to commercial application. With Indonesia at the centre of world nickel production, and with a partnership with Indonesia's leading nickel company, we are confident that the Company is in the best position to build the first plant there.

Our Perth operations remain available to us and to our customers with the co-operation of CSIRO that has been and remains closely involved and a keen advocate for the technology. CSIRO is a shareholder in DNi adding much to the credibility of our share register.

Subject to funding being available, technical work in 2015 will be largely focused on the NHT feasibility study as well as a number of process optimization tasks including:

- Improved and more cost effective thermal decomposition options;
- Aluminium two-stage removal test work;
- Materials testing; and,
- Small plant studies.

Apart from our principal asset, the intellectual property, we have a potentially valuable hard asset in the 50% interest in the Mambare nickel resource in PNG.

2015 should also see the new Jokowi administration in Indonesia completing the policy and economic reviews and policy settings that are needed for miners and investors to embark on new projects. In particular, the shackles on PT ANTAM and its capital investment budget can be expected to be relaxed.

Meanwhile, DNi must continue to seek funding to remain in contention and to enable the commercialization and monetization of the Process to succeed. And that value must be delivered to shareholders on the strength of the underlying business reflected in a share price on a recognized exchange in a liquid and buoyant market – or in the value of the Process if the Company is acquired in a takeover or trade sale.

## Company Presentation

We have attached a recent presentation that outlines the Company's current offering. In the short term, the Company is offering qualified investors a placement of around 10% of Direct Nickel on attractive terms and an opportunity to contribute to the exciting future of the Company. For more information, please note the contact details at the end of the Presentation.

We look forward to your attendance at the Annual General Meeting.

Andrew Vickerman  
Chairman

Russell Debney  
Managing Director & CEO

**For further information, please contact:**

Russell Debney  
 Managing Director & CEO  
 Telephone: Tel: +612 8014 7780  
 Email: [info@directnickel.com](mailto:info@directnickel.com)

**MEDIA & INVESTOR RELATIONS ENQUIRIES:**

Fortbridge Consulting: + 612 9003 0477

Fortbridge / Sydney  
 Bill Kemmery  
 Mobile: +61 400 122 449  
 Email: [bill.kemmery@fortbridge.com](mailto:bill.kemmery@fortbridge.com)

Fortbridge / 中国市场及中文咨询  
 Isabella Kou  
 手机: +61 425 567 931  
 邮件: [isabella.kou@fortbridge.com](mailto:isabella.kou@fortbridge.com)

Fortbridge / London  
 Matt Beale  
 Mobile: +44 (0) 7966 389 196  
 Email: [matt.beale@fortbridge.com](mailto:matt.beale@fortbridge.com)

Fortbridge / Hong Kong  
 Christine Wootliff  
 Mobile: +852 908 723 27  
 Email: [christine.wootliff@fortbridge.com](mailto:christine.wootliff@fortbridge.com)

**About Direct Nickel**

Direct Nickel has developed a game changing process for extracting nickel from nickel laterite deposits. It will position Direct Nickel as one of the lowest cash cost producers in the global nickel industry in the next 5 years. The Process offers unparalleled cost efficiency, capital savings and environmental benefits.

Nickel is a strategic metal and a vital alloy in quality stainless steel. As a result of the decline in production from sulphides and technical difficulties with completion and start-up of alternative nickel laterite processing plants, nickel is forecast to suffer a supply shortfall commencing in 2017.

Direct Nickel has operations in Sydney and Perth. It also operates in Indonesia through its subsidiary, PT Direct Nickel with offices in Jakarta.

Additional information on the Company, the DN<sub>i</sub> Process, the Test Plant and related activities, including photographs, is available at [www.directnickel.com](http://www.directnickel.com), or by request from the Company.

# DNi

DirectNickel

An Opportunity to Invest in The Future  
of Nickel

November 2014

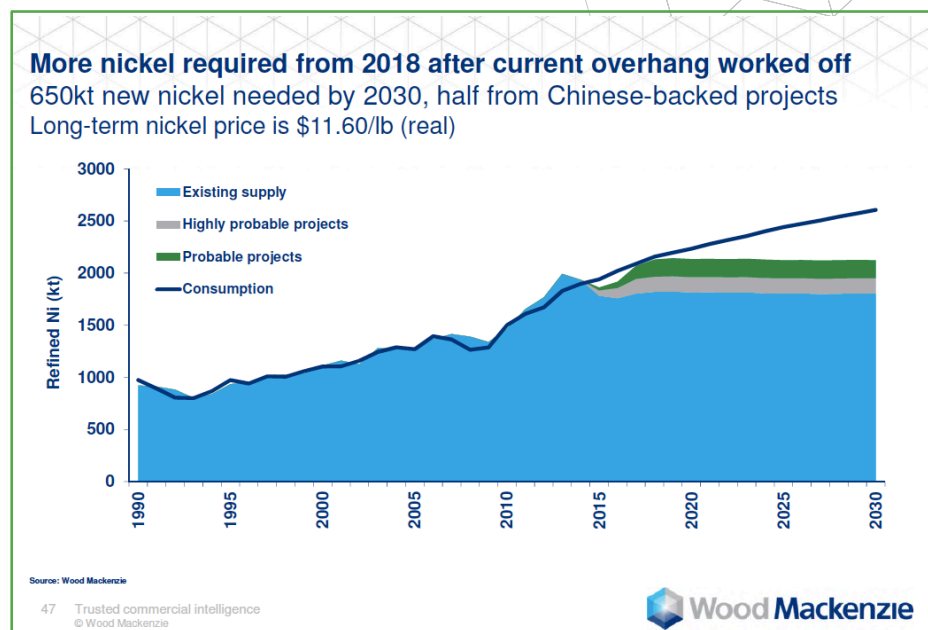


# Investment Opportunity

- DNi is an Australian public company listed on the ASX but not currently quoted. Established in 2005, DNi has developed a **unique hydrometallurgical method** for successfully treating lateritic nickel deposits to produce a high grade, 40+% nickel concentrate
- The DNi Process is a continuous, low temperature, acid leaching process conducted at atmospheric pressure. It is **more efficient than any other method** currently used to process laterite nickel, recovering over 90% of nickel. In addition to producing high value nickel concentrate, the DNi Process also separates and recovers valuable cobalt, magnesium and iron for sale as by-products. **The Process has environmental benefits**, producing less waste, and more benign waste than existing nickel laterite processes.
- **The Process has been tested and proven at a 1 tonne/day DNi Process pilot plant constructed at CSIRO's Australian Minerals Research Centre in Perth, Western Australia. The pilot plant was a two-year, multi-stage, joint R&D project between DNi and CSIRO's Mineral Resources Flagship. To date, DNi and its technology partners have invested more than 9 years and over US\$40 million in developing the DNi Process.**
- DNi has formed a **commercial partnership with PT Antam, Indonesia's largest resources company** and a major global nickel producer, to develop a DNi Process Plant at Antam's existing Buli Nickel Mine, on Halmahera Island, Indonesia.
- **Process economics are compelling**, with Capex and Opex half that of existing processes, and financial forecasts for a 20ktpy nickel capacity process plant at PT Antam's Buli Mine in Indonesia showing a NPV of US\$1,564 million and an IRR of 27% for a Capex of \$US\$695 million.
- **DNi is seeking to raise up to US\$20 million in new equity to complete the commercialization of the Process** and fund its share of JV expenditure with PT Antam to completion of feasibility studies. A subsequent raising of US\$700-900 million is expected through equity and debt finance for JV plant construction.
- Subject to funding and finalization of commercial agreements, the **first stage of the plant is expected to be operational by 2017-18**, by which time DNi expects to be cashflow positive. This coincides with a **forecast global nickel shortage**.

# The Looming Global Nickel Shortage

- Steady global demand for stainless steel has supported the growth in global nickel demand from 1,286kt in 2008 to an estimated 1,770kt in 2013. This is forecast to increase to 2,376 by 2020 (Source: INSG, HDR Salva - July 2014)
- China now accounts for half of the world's total nickel consumption compared to less than 10% a decade ago.
- Indonesia was the largest nickel supplier to China, with unprocessed Indonesian ore contributing to 57% of Chinese nickel production in 2013 (Source: Macquarie Bank - May 2014).
- In January 2014, the Government of Indonesia enacted a total ban on the export of unprocessed ore, removing 15% of world nickel supply.
- The Indonesian export ban was intended to stimulate in-country value-added processing of ore prior to export.



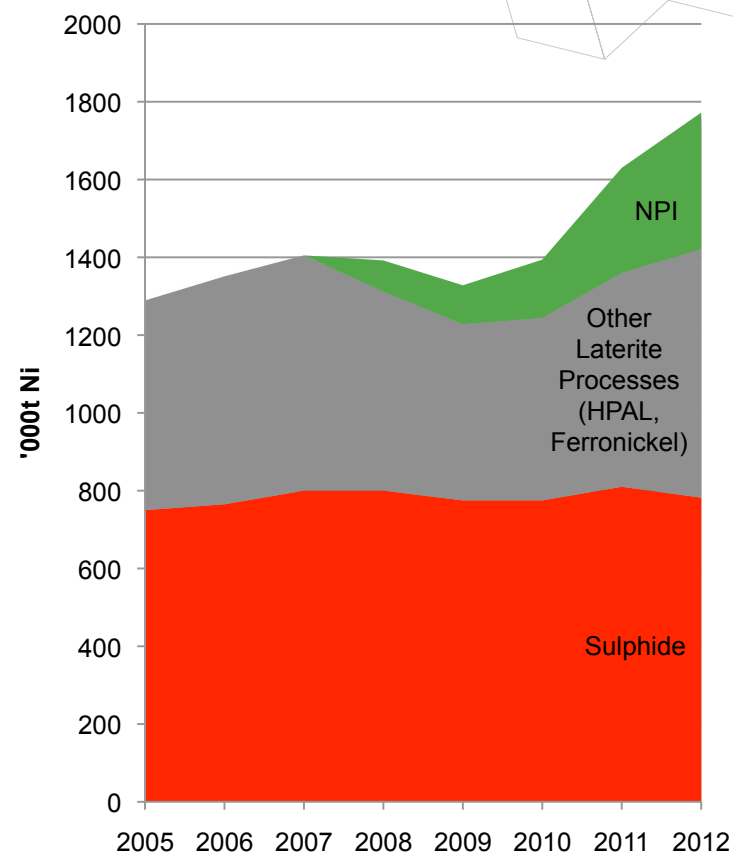
- Chinese producers stockpiled imported ore ahead of the ban which has temporarily forestalled an immediate global shortage.
- By 2015, analysts forecast a medium to long term shortage of nickel, linked with a rise in the nickel price



# Nickel Laterite Processing Challenges

- Nickel laterite's share of world nickel supply has increased from 40% in 2009 to 60% in 2013.
- World nickel supply was traditionally dominated by nickel sulphides as these are easy to process, but sulphides are becoming scarce and increasingly deep, with few new discoveries.
- Nickel laterites on the other hand are abundant, located at the surface, and known laterite deposits contain enough nickel to meet world demand for over 100 years.
- However, laterites have traditionally been difficult and costly to process. Traditional technologies such as High Pressure Acid Leach (HPAL) and Ferronickel require high pressures and temperatures, exotic materials of construction, and have been beset with massive capex blowouts, technical failures and project delays.
- The resulting shortfall in production was filled by very high cost Chinese Nickel Pig Iron (NPI) production. These NPI producers are now cut off from their primary source of ore, Indonesia.
- The DNi Process is poised to solve these challenges

## Nickel Supply Growth



# Revolutionary DNi Process Technology

- DNi Process has been developed to produce nickel metal oxides and hydroxides. The Process is based on continuous, rapid tank leaching, achieving high metal recovery rates, particularly of nickel and cobalt but also of iron as hematite and magnesium oxide.
- The DNi Process is most efficient for extracting nickel from laterites and the first to treat the entire profile of a laterite deposit – limonite and saprolite – meaning much better, economic use of the resource, effectively doubling resource utilization;
- A key feature of the Process is that 97% of the leach reagent, nitric acid, is recovered and recycled, lowering production costs and efficiently reducing associated environmental issues;
- Opex and Capex is forecast to be less than half those of existing processes in part because the DNi Process does not require high pressures or high temperatures, or exotic materials of construction. Also, the minimum threshold plant size is around 5,000 tpa nickel, a fraction of the scale competitors must start from to be economic;
- A DNi Processing plant can be constructed and operated with commercially available off-the-shelf equipment and utilising well-proven stainless steel fabrication techniques. Plant construction can be modular, further de-risking scale-up costs;
- DNi's technical partners, including Canada's Teck Resources and the CSIRO, are world-class experts in mining and minerals processing and both are positive about the advantages of the DNi Process relative to the competition;
- The DNi Process has been significantly de-risked with the help of these expert partners and rigorous testing of the breakthrough reagent recycle process at demonstration scale;
- The DNi Process is environmentally friendly because almost all the reagent is captured and recycled. The mass of waste residues is less than half that of HPAL processes due to minimal loss of the reagent, low gas emissions and vastly less neutralising agents. Also, nitrates in processed residue break down to usable nitrogen for plant growth. This may prove to be a major advantage in nitrogen deficient high-rainfall tropical environments and a boost to local agriculture in developing countries such as Indonesia;
- The economics of the DNi Process includes the production of saleable co-products, dramatically increasing project revenue

# Technology Development & Testing

The 1 tonne/day DNi Pilot Plant at CSIRO's research centre in Perth WA has confirmed that the DNi Process is simple and safe to operate on a continuous basis, with metal recoveries and reagent recycling meeting and, in many cases, exceeding expectations and with process operating and capital costs targets confirmed.



Nickel Hydroxide



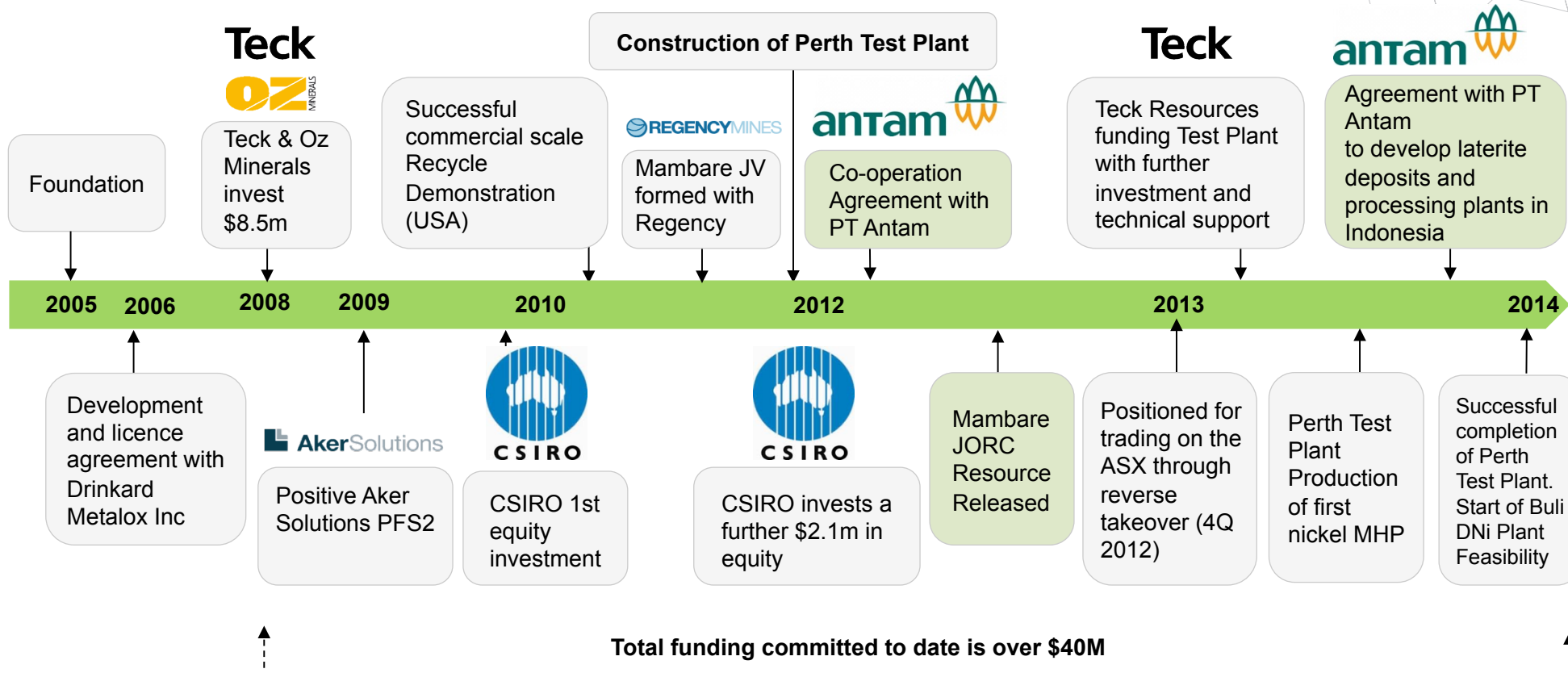
Magnesium Oxide  
By-product



Iron Oxide (as  
Haematite) By-product

# DNi's Growth Story

After 9 years of development involving independent third party review and strict adherence to industry standards, the DNi Process is ready for the first commercial plant





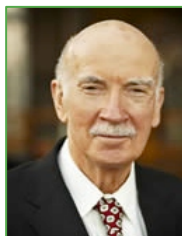
# DNi's Executive Management Team

DNi has a highly experienced and competent management team with a wealth of resources industry experience in exploration and resource development, mining, minerals processing and commercial activities:



**ANDREW VICKERMAN, Chairman**

During the period 1998-2009, Andrew was a member of the Operating and Executive Committees of Rio Tinto, with responsibility for communications and external relations. During the period 1994 to 1998 he was Finance Director of Lihir Gold Prior to that he worked with RTZ Mining & Metals as commercial advisor. Andrew has more than 20 years' resources industry experience.



**BILL DRINKARD, Vice Chairman**

Bill founded his first corporation, Mineral Research and Development Corp., while attending college. Bill has a degree in Chemical Engineering from North Carolina State University. He is a member of the Iron and Steel Society, the American Chemical Society, the Forest Products Research Society, the American Wood Preservers' Association, and the Canadian Institute of Mining, Metallurgy, & Petroleum. One of the companies Bill founded was responsible for the early stage development of the DNi Process. He is also a foundation shareholder of DNi



**RUSSELL DEBNEY, Managing Director and CEO**

Russell has worked in the mining and resources industry since 1975 and is a qualified commercial and corporate lawyer who became a director of Global Engineering, a consulting engineering and project management company specialising in the offshore oil and gas industry. Global grew to be a company of 1600 people in 20 locations worldwide. Russell was Senior VP responsible for all financial, commercial and contracting matters. Russell is one of the co-founders of DNi.



**GRAHAM BROCK, Technical Director / Project Manager**

Graham is a metallurgist with over 40 years' experience in the mining industry. In addition to his process knowledge and experience he has strong project organisation and management skills, which he has applied in the nickel, gold and base metal sectors. Before joining DNi he was General Manager of Projects for LionOre Australia, responsible for expansions at Black Swan and Lake Johnston nickel mines and studies on the large Honeymoon Well disseminated nickel project.

# DNi's Commercial Partnerships



DNi is currently negotiating with a number of the world's largest nickel ore producers and consumers regarding the establishment of the first DNi Process Plant in Indonesia

## 1. PT Antam (Persero) TBK ("PT Antam")

- In 2012 a Cooperation Agreement was entered into with PT Antam covering technical cooperation.
- In 2013 the agreement with PT Antam was expanded to include the formation of a joint venture to develop nickel laterite deposits and processing plants using the DNi Process at PT Antam's Buli mine. This is a corporate joint venture and a new Indonesian Company, PT Nikel Halmahera Timur (NHT) has been formed with DNi and PT Antam each holding 50% equity. The agreement leaves DNi free to enter into separate agreements outside Indonesia.
- The Cooperation Agreement includes the completion of a feasibility study to develop a 20ktpy plant at the Buli Mine. Completion of the study, estimated for mid-2015, is subject to NHT securing funding for the feasibility study costs (currently estimated at US\$9 million).
- The DNi plant would be developed from 2016 to 2018, adjacent to PT Antam's existing Buli Mine and their new

ferronickel smelter which is currently under construction.

- Project funding is expected to be provided by Export Credit Agencies, Multilateral Agencies, offtake finance, partner's equity, and other third party project financing sources.

## 2. Chinese Nickel Producers and Consumers

- Similar joint venture discussions are in train with a number of Chinese parties to also develop commercial DNi plants in Indonesia and elsewhere. This reflects the fact that Chinese nickel producers and consumers are being forced to establish process plants in Indonesia by the export ban on unprocessed ore.

## 3. Other Commercial Initiatives



- In November 2009, DNi entered into a 50:50 joint venture with Regency Mines (AIM:RGM) to develop the Mambare nickel laterite deposit in PNG. The JV announced a maiden JORC Indicated and Inferred Resource of 162.5Mt @ 0.94% nickel in 2012. The project has the potential to be largest nickel laterite projects in the world with less than 3% of the main target drilled to date.

# DNi's Commercial Partnerships

## Why Indonesia?

- Indonesia has the best nickel grades and the greatest aggregate endowment of laterite nickel (>34Mt of contained nickel) in the world
- It was the world's largest exporter of unprocessed nickel laterite ore until implementation of the export ban. Local Processing is now a necessity

## Why Antam?

- PT Antam is the largest Indonesian diversified mining company, with listings on the Indonesian and Australian Stock exchanges, and enjoys strong government support (remaining 65% state-owned)
- It is Indonesia's largest nickel miner and laterite ore exporter (until the ban), and the second largest producer of processed nickel metal in Indonesia.
- Its existing smelters cannot process the ore cut off from the export market

## Why Buli?

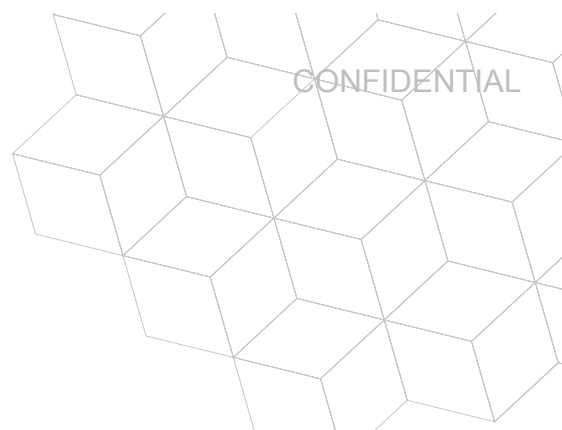
- Buli houses one of the largest nickel Reserves and Resources in Indonesia having an estimated 286Mt at 1.63% nickel.
- Its coastal location provides access to other PT Antam deposits
- DNi's agreement with PT Antam will provide DNi with unparalleled access to high nickel grades (1.5% to 2.5% Ni). At present, "low grade" limonite ore from Buli is stockpiled as waste – this would be considered "high grade" anywhere else in the world, and will make ideal, low cost feed for a DNi plant.
- In addition, given that the DNi plant will be constructed adjacent to an existing mine and ferronickel smelter currently under construction, much of the necessary logistics infrastructure and support services already exist, including a recently completed export shipping terminal. This is expected to significantly lower initial capital costs and enhance overall project IRR.

Mining at Buli



Existing liquids jetty at the Buli plant site





# NHT Project Location - Buli







# Financial Forecasts

DNi has recently updated its detailed economic model of a stand-alone DNi processing plant located at the Buli Mine based on information from the 2013 Test Plant in Perth. The updated model includes revised energy consumption estimates and need for a coal-based steam/power generation plant, based on the latest SysCAD model.

As production capacity can be readily expanded using plant expansion modules, four business cases have been modelled, based on four plant capacities

| PLANT CAPACITY (Ni tpa) | 5,000 | 10,000 | 20,000 | 60,000 |
|-------------------------|-------|--------|--------|--------|
|-------------------------|-------|--------|--------|--------|

| CAPITAL COST         |              | USD million  |              |                |  |
|----------------------|--------------|--------------|--------------|----------------|--|
| DNI Process Plant    | 175.0        | 266.0        | 403.0        | 779.0          |  |
| Other Infrastructure | 55.0         | 36.5         | 55.0         | 107.0          |  |
| Power Plant          | 103.0        | 156.0        | 237.0        | 457.0          |  |
| <b>Total Capex</b>   | <b>333.0</b> | <b>458.5</b> | <b>695.0</b> | <b>1,343.0</b> |  |

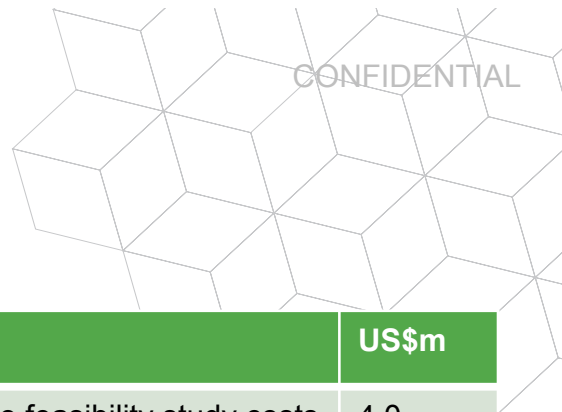
| OPERATING COST                                 |      | USD per lb Ni in concentrate |      |      |  |
|--|------|------------------------------|------|------|--|
| Ni   | 4.00 | 3.21                         | 2.80 | 2.51 |  |
| Ni + Co  | 3.70 | 2.91                         | 2.50 | 2.21 |  |
| Ni + Co + MgO                                  | 2.67 | 1.87                         | 1.46 | 1.17 |  |
| Ni + Co + MgO + Fe <sub>2</sub> O <sub>3</sub> | 1.72 | 0.93                         | 0.52 | 0.23 |  |

| FINANCIAL METRICS (includes co-product revenues)    |           |            |              |              |  |
|---|-----------|------------|--------------|--------------|--|
| IRR <sup>(1)</sup>                                  | 10.4      | 19.2       | 27.2         | 42.0         |  |
| NPV <sup>(1)</sup> (8% discount rate) USD (million) | <b>85</b> | <b>571</b> | <b>1,564</b> | <b>5,148</b> |  |

Note 1: Values post tax, assuming 10 year tax holiday

## Notes to the Financial Forecasts:

1. The economic study assumes a capital cost of US\$695 million and a sustainable, long-term nickel price of US\$9.10/lb, based on the operation of a 20,000 tpa plant.
2. At this scale DNi expects to achieve operating costs of US\$2.80/lb for nickel production, with this cost falling to US\$0.52/lb after taking into account all co-product credits.
3. Further, at 20,000 tpa the study indicated a Project Net Present Value of US\$1,564 million at a discount rate of 8%. A 60,000 tpa plant indicated a Net Present Value of \$5,148 million at a discount rate of 8%.
4. The capital cost of US\$695 million is assumed to be funded as to 80% through an equal mix of bank project finance, ECA funding and offtake/mezzanine finance, and the remaining 20% to be provided by partners' equity and/or IPO funding.
5. The DNi Plant at the Buli Mine is intended to be funded on a discrete project finance basis via the NHT joint venture resulting in minimal dilution for DNi shareholders in DNi.
6. Detailed financial modelling carried out by DNi, based on the development of a DNi plant at PT Antam's Buli Mine on Halmahera Island and the process outputs of the pilot plant R&D project, indicates that should the project scale up to a 60,000 tpa plant, it would achieve an IRR of 42% (Table 2, below).
7. Finally, the draft commercial agreement being negotiated with PT Antam provides for 50% ownership by DNi of the joint venture company for the first DNi Process plant.



# New Equity Investment

- DNi is seeking to raise US\$20m in new equity to complete the commercialization of its nickel processing technology and, in conjunction with the major global nickel producer PT Antam, oversee the construction and commissioning of a DNi Process plant in Indonesia. Investors will be issued new shares in Direct Nickel Limited

## REASONS TO INVEST

- As developer of a disruptive, low-cost nickel laterite technology, DNi is optimally positioned to take advantage of recent changes in the global nickel market, not only in Indonesia but elsewhere. As an investor in DNi, incoming shareholders will gain exposure to the anticipated uplift in the value of DNi shares over the next 2-3 years.
- Massive nickel laterite resources in equatorial countries such as Indonesia, The Philippines, Brazil, and PNG are undeveloped and undervalued due to technical challenges of current nickel laterite processing. Commercialization of the DNi Process has the potential to unlock and revalue these projects.
- Investment in DNi provides exposure to the flagship Indonesian JV with PT Antam, as well as DNi's 50% share in the Mambare Project in PNG, which has an existing JORC resource and world class exploration potential
- Investment will capitalise on 9 years of technology development and investment of over US\$40 million by the founders and DNi shareholders. The two-year CSIRO pilot plant & R&D project has proven the viability of the technology, and de-risked the commercialization process
- DNi is in advanced commercial discussions with major Indonesian and Chinese nickel miners, producers, and stainless steel manufacturers, and has entered into joint venture and collaboration agreements in Indonesia. The new equity investment proposed will help catalyse the progression of these discussions to definitive commercial agreements for the construction of the first DNi Process plant and production of nickel concentrate using the DNi Process. This can be expected to be followed by additional plants once the DNi Process is recognised as the lowest cost-most efficient processing method for nickel laterite ores.

| Use of Funds:   | US\$m       |
|---|-------------|
| DNi's contribution to feasibility study costs   | 4.0         |
| Working Capital (3 years)   | 7.5         |
| Engineering, process optimization, feasibility study support services, associated test work | 8.5         |
| <b>Total new equity required</b>  | <b>20.0</b> |

# Investment Opportunity Summary

- DNi is exceptionally well-positioned to advance its strategy to create a world class nickel company, initially focussing on Indonesia where there is an abundance of high grade lateritic resources as well as a low-cost operating base, and strong demand for local processing.
- Nickel laterites account for over 70% of the world's known nickel deposits and they produce over 60% of the world's annual production.
- The technical challenges associated with traditional laterite processing remains a major impediment to nickel supply. The DNi process therefore has the potential to provide the step change the nickel industry needs to overcome high capital and operating costs in a volatile commodity price environment whilst meeting forecast demand pressures from countries such as China.
- DNi has spent four years working with CSIRO, an independent world class research organisation, proving the DNi process technology, and validating project economics and the hydrometallurgical science that underpins the DNi Process.
- Incoming investors will capitalise on nine years of technical development and an investment to date of over US \$40 million in the DNi Process, and a well established partnership with Indonesia's largest miner, PT Antam.
- DNi now requires US\$20 million over the next three years to complete the commercialisation process by implementing a significant commercial agreement with a major nickel producer, overseeing the construction of its first DNi process plant in Indonesia, obtaining a 50% equity interest in that project through its participation on the NHT joint venture and taking the Company to a cash positive position.



DirectNickel

**Investor Relations Enquiries:**

Russell Debney, CEO  
Mobile: +61 412 334 459  
Email: russell@directnickel.com

Ian Warden  
Mobile: +61 408 207 123  
Email: ian@directnickel.com

**Direct Nickel Projects Pty Ltd** ACN 117 101 390

[www.directnickel.com](http://www.directnickel.com)

**Sydney Office:**

Level 10, 15-17 Young Street, SYDNEY NSW 2000 Australia  
Tel : +612 8014 7780

**Perth Office:**

Australian Minerals Research Centre  
7 Conlon Street, WATERFORD WA 6152 Australia  
Tel: +618 6365 4302

**Jakarta Office:**

Level 23 Alamanda Tower, Jl TB Simatupang Kav  
23-24 Cilandak Barat JAKARTA 12430 Indonesia  
Tel +62 (2) 2966 0023