



Intec Ltd

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Superior and Sustainable Metals Production

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Companies Announcements Office
Australian Securities Exchange

15 December 2010

Intec Presentation to Ai Group's Sustainability Advantage Cluster Meeting

As part of ongoing marketing and industry communication, Dave Sammut, Corporate Development Manager of Intec Ltd (ASX: INL), will today deliver the attached presentation to the Sustainability Advantage Cluster meeting of the Australian Industry Group in Sydney.

Sustainability Advantage is a business support service from the NSW Department of Environment, Climate Change and Water (DECCW). It is designed to help organisations understand sustainability, successfully manage for a better environment and add business value. Cluster meetings of groups of businesses that share regional, industry or supply chain interests are held 3-4 times a year provide an opportunity to draw on the ideas and experiences of like minded organisations.

A video of the presentation will be available on Intec's web site early next week.

Yours faithfully
Intec Ltd

Philip R Wood
Managing Director and Chief Executive Officer

About Intec Ltd

Intec Ltd is an Australian company which owns the Intec Process for superior and sustainable metals production. The Intec Process comprises a set of patented chloride-based hydrometallurgical processes that have been demonstrated to produce high purity base and precious metals from concentrates of sulphide and oxide ores, tailings and industrial wastes. The Intec Process has substantial environmental and cost advantages over both the widely used conventional smelting and refining processes and other known hydrometallurgical processes.



**A U S T R A L A S I A N
I N D U S T R I A L E C O L O G Y
N E T W O R K**

The Australasian Industrial Ecology Network is a Working Group of the Waste Management Association of Australia



**Australia's Industrial Ecology Network:
One company's waste is another's resource**

A presentation by Intec Ltd to the Ai Group Sustainability Advantage Cluster, 15 December 2010





Why be wasteful with waste?

- In many cases, the defining aspect of a waste is not its chemistry or its physical features.
- When a metal-bearing material is produced as an unintended by-product rather than a deliberately created and specified product, it is highly regulated.
- Waste is as much defined by provenance and 'variability' as it is by economics.
- **This leads to wasteful thinking.**



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The Australian Industrial Ecology Network

“To promote & encourage the development of activities, processes and relationships between entities which convert surplus, spent or unwanted materials, energy and services into valuable resources.”



Member of:

 **WMAA**
Waste Management Association of Australia

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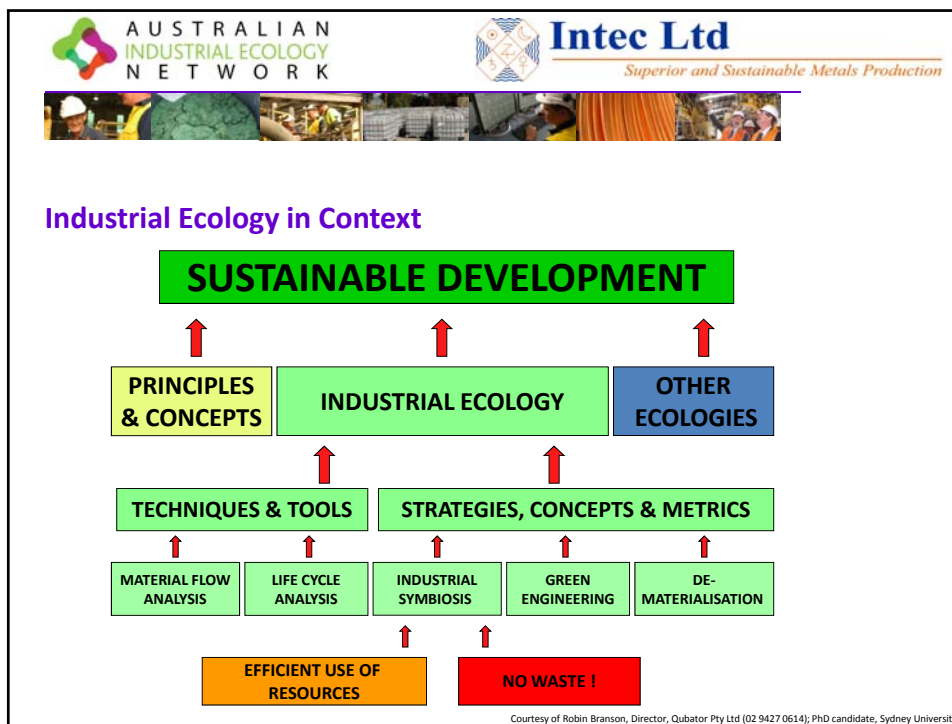



Industrial Ecology

Industrial Ecology promotes enhanced sustainability by stimulating innovations in the reuse of waste materials.

The wastes or by-products of one industry are used as inputs in another industry, thereby closing the material loop of industrial systems and minimizing waste.








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Industrial Ecology/Symbiosis Internationally

- Kalundborg, Denmark is often cited as the “classic example” of industrial symbiosis in practice.
 - From Jorgen Christensen at the 2010 Australian Industrial Ecology Network conference:
 - “A number of industries and the local municipality are cooperating through commercial agreements in order to obtain economic and environmental benefits.”
 - “The barriers for the introduction of an industrial symbiosis are neither technical, systematic nor environmental, but have to do with human communication and the ability to co-operate across company boundaries.”
- The NISP programme has been operating successfully in the UK for ~5 years
 - From Gary Foster, NISP Regional Director, speaking at the 2010 AIEN conference:
 - ‘Facilitated’ network approach
 - “Industrial Symbiosis addresses ‘imperfect knowledge’ to improve resource efficiency...”
 - www.nisp.co.uk
 - “Put simply, our vision is to change the way business thinks.”



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Local Action by the Australian Industrial Ecology Network

- Fostering communication and networking for IE opportunities
- Not-for-profit conferences in 2009 and 2010
- Working with regulators and relevant groups about practical steps towards implementation
- Working with potential providers on databases, seeking a model that will yield the most widespread use and application
- Current proposal for NSW IE 'Facilitator'
- Encouraging action across Australia
- Workshops around NSW throughout 2010





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Industrial Ecology is Already Happening in Australia

Some examples:

- Kwinana Industrial Area, WA
- NSW DECCW Resource Recovery section and Sustainable Advantage Programme
 - Associated work on road base, fly ash, coal washery rejects, glass, sands, plastic, timber, tyres and other wastes in NSW
 - Specific recycling projects involving low density PE, high density PE and PP are being pursued involving aggregation of used and segregated plastics, collection/logistics and market development for products extruded from recycled material.
- Weston Aluminium - recycling aluminium wastes into products
- Intec Ltd – recycling heavy metal wastes into mineral products





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Industrial Ecology is Already Happening in Australia

Intec is an Australian company with patented hydrometallurgical technology plus a range of know-how and infrastructure for the recovery of base and precious metals from a wide range of mineral and industrial resources.

Intec is successfully applying its technology to the recycling of heavy metals from industrial wastes in Australia .







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Our Service


Intec recycles heavy metals and precious metals from industrial wastes – sludges, filter cakes, dusts or waste waters.

Instead of creating extra waste by trying to lock these metals up in cement then disposing of them to landfill, Intec extracts and recovers them as useful mineral products.






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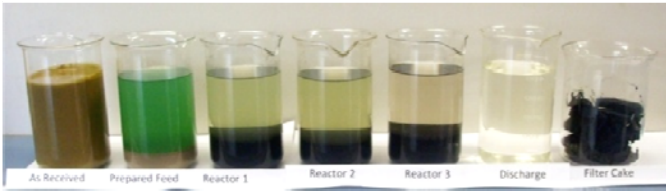


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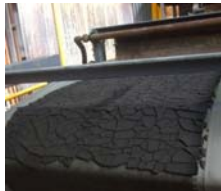
An Example of Intec's Heavy Metal Recycling


Element	Concentration in Waste Feedstock pH 10-11	Average Recovery to Product	Clear Discharge Concentration pH 6-9
Lead	43 wt%	>99%	<10 mg/l
Iron	1.6 wt%	>99%	<10 mg/l
Copper	2.4 wt%	>99%	<10 mg/l
Tin	7.5 wt%	>99%	<10 mg/l
Nickel	8.7 wt%	>99%	<10 mg/l




As Received Prepared Feed Reactor 1 Reactor 2 Reactor 3 Discharge Filter Cake








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Awards

Finalist, Sulo Innovation in Sustainability Award
July 2010

“Intec developed and successfully trialed a process for recycling waste sludges, residues and filter cakes, particularly those with high levels of lead, zinc, copper and tin contamination. Working with an engaged and committed client and the EPA, this process diverted hundreds of tonnes of waste (which previously had been stockpiled with nowhere to go) back into the useful product stream, ultimately benefiting the community and the natural environment.”



Winner, Manufacturer's Monthly Endeavour Awards
May 2010



Finalist, Banksia Environmental Awards
Eco Innovation Category, July 2009

Runner-up, Tasmanian Awards for Environmental Excellence
Small Business Sustainability Category, June 2009



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Galvanizing Waste Recycling

- Intec has developed a cheaper 'zero waste' recycling alternative for spent pickle liquor.
- Produce zinc metal, hematite, acid and by-products.
- Avoids current landfill-based alternative.
- Phase 2 commercial trials underway
- EPA Victoria is contributing \$780,000 from the HazWaste fund to Intec's Victorian project partner, GB Galvanizing Service Pty Ltd
- Phase 3 involves the construction of a full-scale recycling facility in 2011, for the recycling of a minimum of 1,000,000 litres per annum of spent pickle liquor





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Looking for Opportunities in Inorganic Heavy Metal Waste

- Metal bearing inorganics:
 - Sludges, solids, filter cakes and waste waters
- Metal wastewaters
 - Chlorides, fluorides, sulphates, ammonia, etc
- Chromium wastes
 - Plating industry, timber industry 'CCA' (copper chrome arsenate), and more
- Battery chemical wastes,
 - Particularly lead chemicals, NiCad or NiMH
- Acid mine drainage and mineral residues (jarosites, pyrites, tailings)
- Electronic wastes
 - Lead from CRT monitors, precious metals from circuit boards





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More Opportunities with the Industrial Ecology Network

Ultimately, the aim is to have AIEN groups in each Australian state and link them together to share knowledge, ideas and technology by forming a National Division under the WMAA. This will be the seventh National Division under WMAA and the group will be able to collaborate with the other National Divisions.

The Industrial Ecology Network is now seeking 'champions' to take up and/or raise opportunities for mutual benefit in NSW. If you or someone you know is interested in Industrial Ecology please contact AIEN.





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Want more information?

If you would like to know more about the Australian Industrial Ecology Network please contact:

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