



International Manganese Institute

IMnI's SUSTAINABILITY PROGRAM

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Why a Sustainability Program for the IMnI?

- ❖ IMnI aims to increasingly become a centre of excellence
- ❖ IMnI strives to represent the entire Mn industry, in all parts of the world
- ❖ The Mn industry is fragmented with many small players and IMnI must help provide a level-playing field for all
- ❖ Sustainability Issues are a priority for regulators globally



History of Program Development

- ❖ At the beginning of 2008 IMnI proposed helping the Mn industry move towards achieving sustainability
- ❖ The Board agreed that the IMnI was entering a new phase and that a sustainability strategy would help members better anticipate upcoming issues & together prepare to meet them
- ❖ In Sept '08 IMnI contracted Hatch- a leading international consulting firm -- to help the Institute develop its sustainability program



IMnI's Mn Sustainability Program (HATCH)

Brief to HATCH

1. Benchmark IMnI against metals industry associations
2. Provide a GAP analysis between IMnI & 6 other industry associations based on the information from step 1
3. Complete a SWOT analysis (Strength, Weakness, Opportunities & Threats)
4. List and assess legal and regulatory affairs facing the Mn industry
5. Present findings to OHES representatives – preparatory workshop



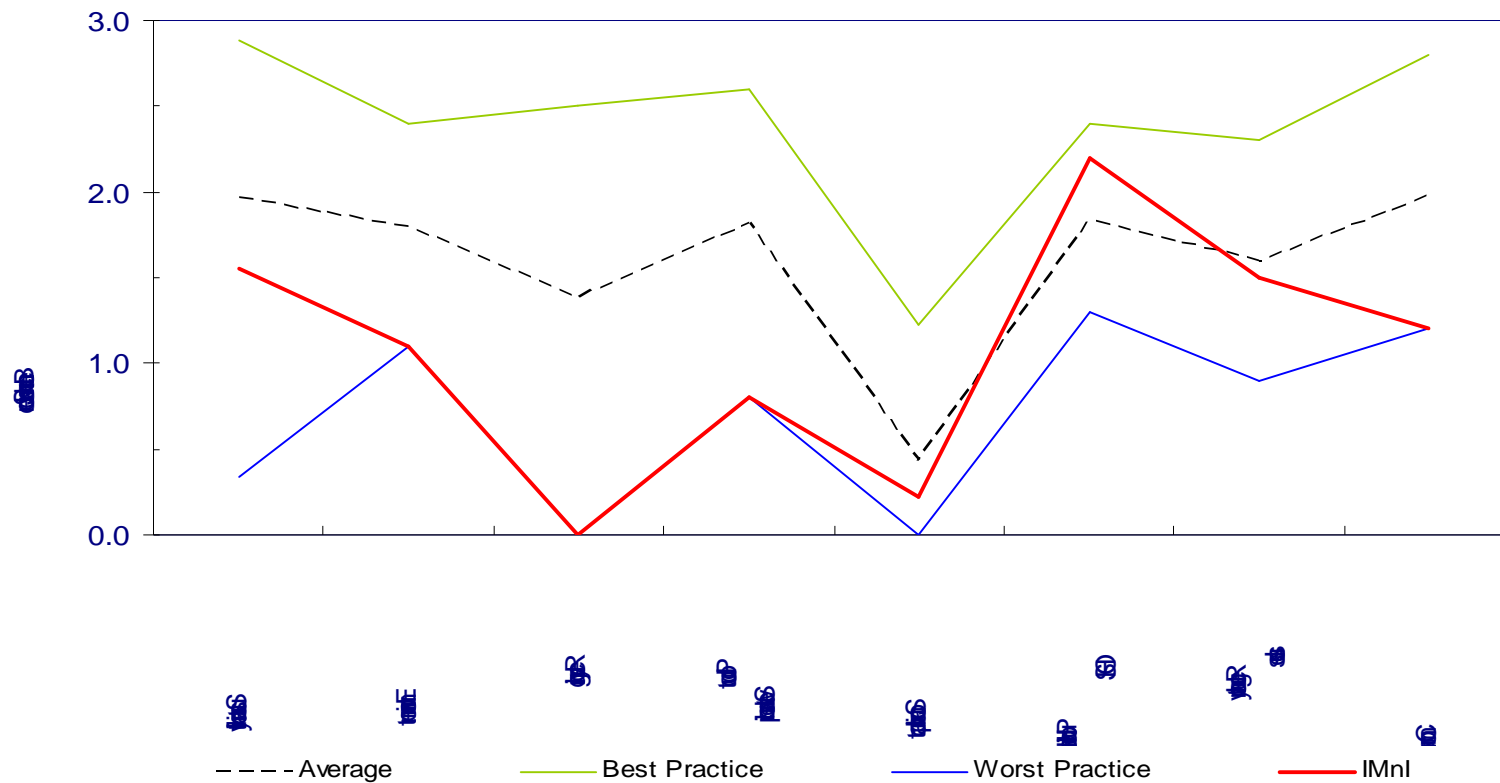
BENCHMARKING: WHERE WE ARE

- ❖ This exercise was carried out by a series of interviews with 7 industry associations (including IMnI)
- ❖ The interviews focused on sustainability, recycling, product stewardship, social impact, public health, regulatory issues & communication
- ❖ The aim was to gain insight on best practice amongst industry associations
- ❖ The results are to serve as a guide for IMnI on areas improvement



GAP ANALYSIS: WHERE WE ARE

Best & Worst Practices in Sustainability Subject Areas





IMnI's STRENGTHS & AREAS FOR IMPROVEMENT

Results of the SWOT analysis:

STRENGTHS	WEAKNESSES
Initiatives on Public Health and Occupational Health & Safety	Product stewardship
Regulatory issues are well managed	Recycling of Mn
IMnI ranked just below the average of the industry associations benchmarked	Social impact
OPPORTUNITIES	THREATS
Emerging markets in hybrid vehicles	Stringent regulatory laws and associated issues, i.e. mis-classification, lower exposure limits etc...
Use as a fuel additive	Manganism



REGULATORY AFFAIRS: WHERE WE ARE

- ❖ The regulatory assessment involved a blanket review of current & upcoming legal and regulatory issues across a variety of countries, namely;

Canada	South Africa
USA	Australia
EU	Japan
China	

- ❖ The results of the assessment were used to compile a matrix of laws & regulations as well as identify any regulatory trends



OHES Members workshop

The objectives of the preparatory workshop were to:

- ❖ Develop a shared understanding of “sustainability”
- ❖ Discuss findings from the industry benchmarking, GAP and SWOT analyses with the aim of integrating members ideas
- ❖ Discuss communication channels for sharing of best practices, better controlling exposure limits & providing guidance on proper production & use of Mn
- ❖ Develop strategic partnerships with other metals to work towards a common goal of proper recycling, product stewardship & sharing of relevant information to ensure the sustainability of Mn metal & alloys



HATCH'S RECOMMENDATIONS

- ❖ Partnership with World Steel is encouraged because the sustainability of Mn is dependant on applications in steel
- ❖ Understanding the importance of recycling for steel & Mn's role in ensuring proper recycling is vital
- ❖ Although alloying represents the vast majority of Mn consumption, other emerging applications (ex. hybrid vehicles, Lithium-ion Mn batteries) are to be explored



Board Workshop

Background

- ❖ The Board expressed the view that to achieve a complete sustainability program, a benchmarking exercise amongst Board member companies was necessary
- ❖ Topics of interest for the Board ranged from sharing best practices on cost savings, setting guidelines or standards on industry practices, and conducting an industry average life-cycle analysis



THE BOARD WORKSHOP: OBJECTIVES

- ❖ Discuss and evaluate the findings of the benchmarking exercise amongst members
- ❖ Define IMnI's targets for sustainable development moving forward
- ❖ Decide on specific high priority projects the IMnI can oversee

Hatch to prepare an implementation plan from the findings of the workshop



Board Members Benchmarking exercise

- ❖ Five Board member companies were benchmarked (questionnaire and a follow-up phone interview)
- ❖ Questions covered areas such as Membership, Representation & The role of IMnI; Communication; Laws & Regulatory Preparedness; Climate Change & Power; Mn Processing; Product Stewardship, Life Cycle Assessment & Recycling
- ❖ Findings were presented in a focused Board workshop recently where the following decisions were taken



IMnI's Next Steps on Sustainability

The member benchmarking exercise provided the top ranking risks and opportunities to the manganese industry. Initiatives tailored to addressing these risks and opportunities were presented and developed. The following are the next steps for the Manganese Industry:

1 Lifecycle Assessment (LCA)

Conduct a cradle to customer gate LCA for the Mn Industry (mine to Mn alloys). Preliminary indicators have been identified, leadership team has been established. Detailed scope definition to be developed.

2 Facilitating Sharing of Best Practice

Dealing with solid waste defined as priority Leadership & specific projects to be confirmed, based on a business case to be developed by year's end.

3 Climate Change Policy Monitor and Development

The impact of climate change policy on the Mn industry must be understood. Current policies will be presented at next Board meeting and this will serve as the starting point in developing a Mn specific response.



Thank you

Any Questions?