International Lead Zinc Study Group

53rd Session

Lisbon

Portugal

9-10 October 2008

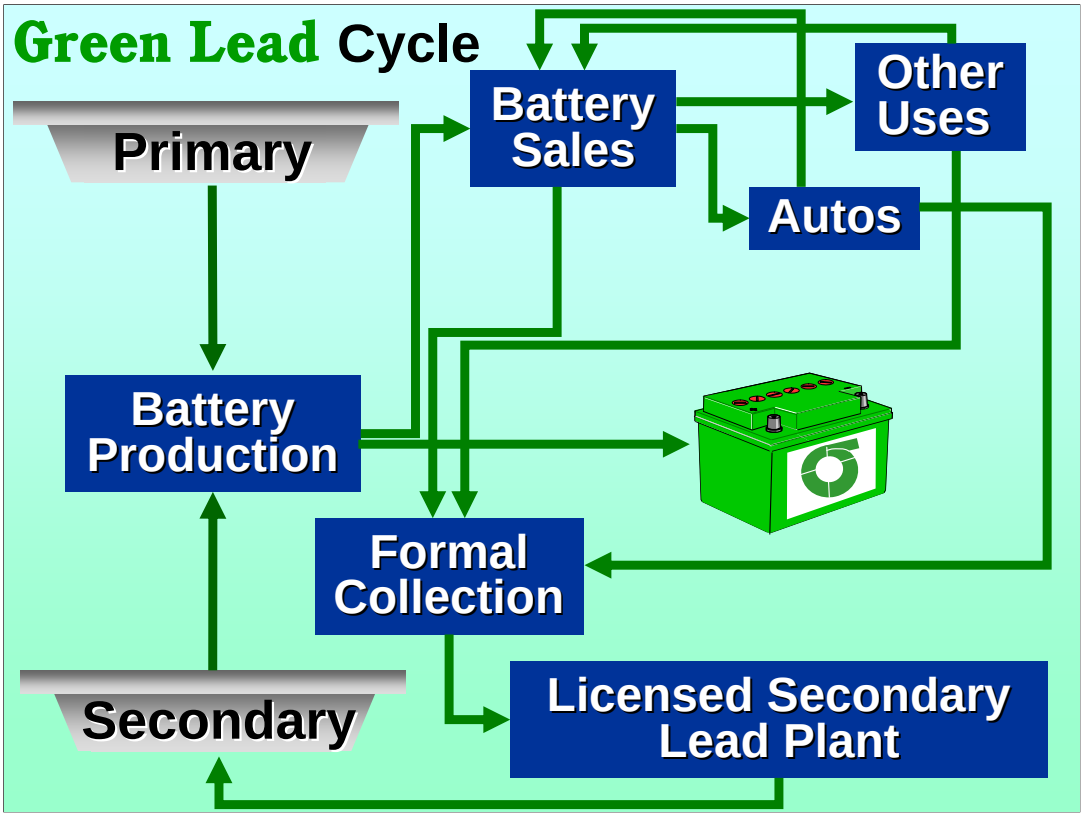
The Green Lead Initiative

What is Green Lead?

Green Lead is a pro active product stewardship program aimed at contributing towards sustainable development outcomes for the lead industry through the sound management of the lead product life cycle.

This means the identification of impacts associated with lead and the establishment of procedures to minimize or eliminate these impacts.

Such an undertaking has involved many stakeholders from the lead industry, NGO's and community groups with interests in the environment and population health.



Green Lead Cycle

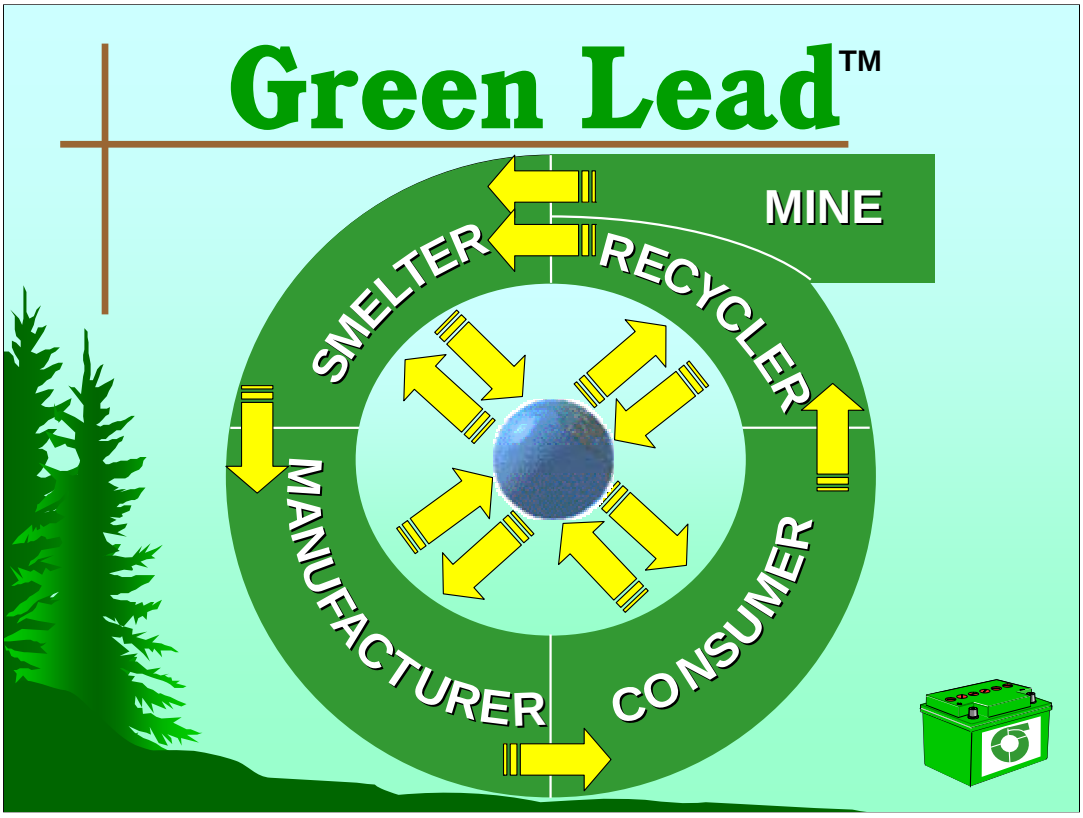
Product Stewardship is a principle that directs the life cycle of a product to minimize the impacts of that product on the environment. What is unique about product stewardship is its emphasis on the entire product chain in achieving sustainable development.

Under a product stewardship regime, all participants in the product life cycle - designers, suppliers, manufacturers, distributors, retailers, consumers, recyclers and disposers - share responsibility for the environmental effects of products. (Northwest Product Stewardship Council, 2000)

This means that each player is accountable to other members of the product chain for their environmental performance, and is obligated to benchmark and demonstrate best environmental practice, resulting in business credentials based on environmental and social performance, as well as quality and value for money.

So a Green Lead regime has tremendous potential in the developing world as model to assist in the elimination of poor recovery practices, unsafe working conditions and even illicit transboundary movements of ULAB.

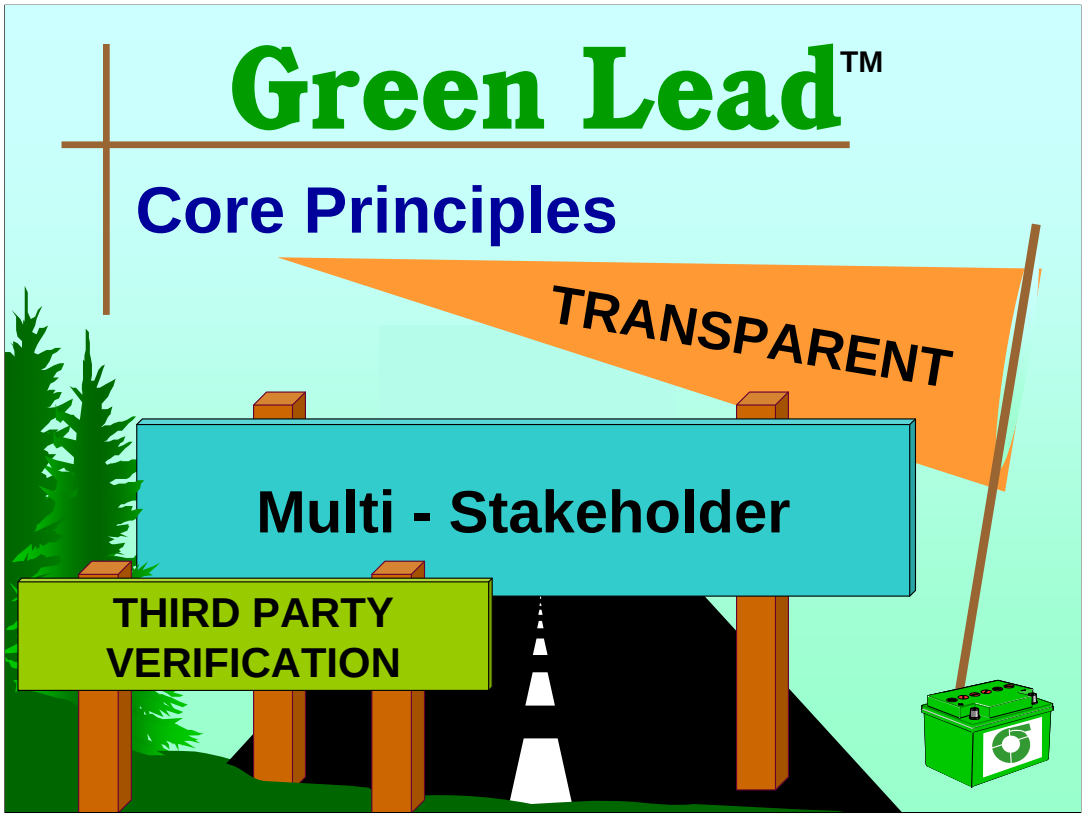
A Green Lead regime, once in place, will facilitate the development of environmentally sound practices, safe working conditions and create a level of product stewardship at the forefront of any commodity.



The Green Lead Sigma Life Cycle

Whereas traditional environmental management focuses upon mitigating and controlling environmental impacts within a particular company or at a particular site, Green Lead seeks to extend the responsibility for a product throughout the product chain.

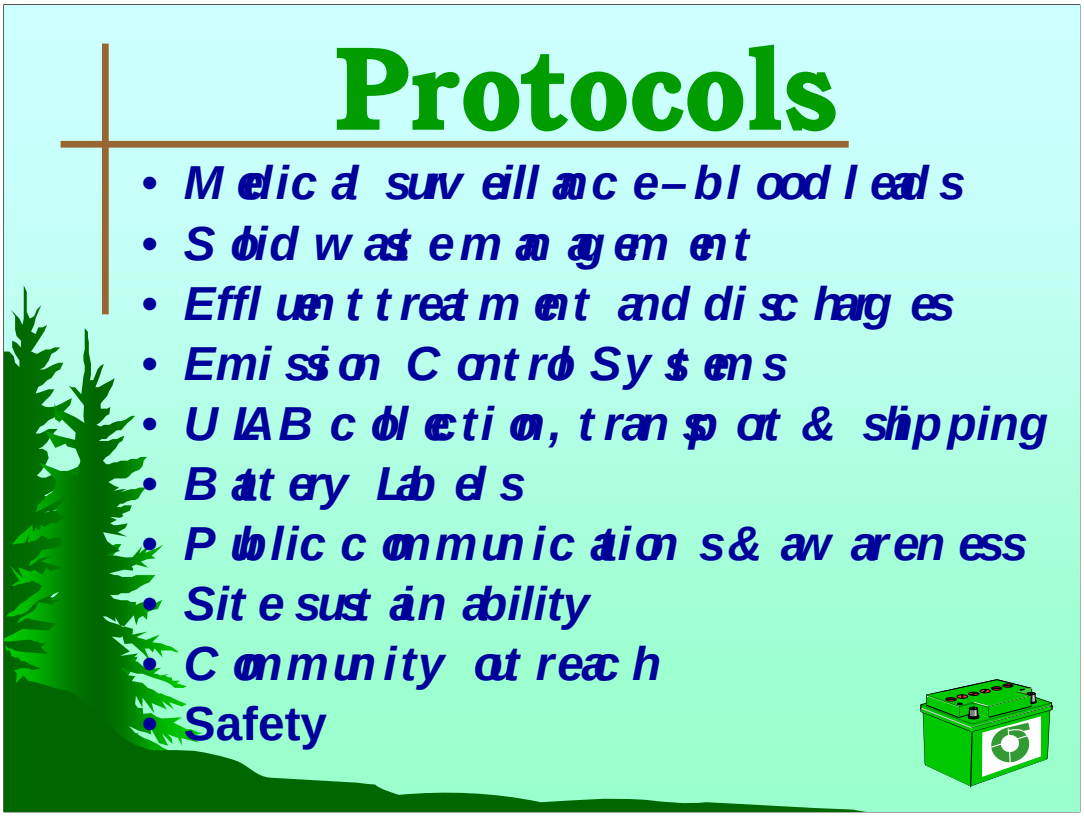
That is, Green Lead extends product responsibility to all those involved in the life cycle beginning with the miners, then the battery manufacturers, distributors, retailers, the users or consumers, and the used lead acid battery recyclers.



Core Principles of Green Lead

Three core principles are fundamental to Green Lead Product Stewardship:

1. Collaboration and cooperation between the Lead Industry, Governments, NGOs and Community Groups throughout the product chain is critical to ensure that all Green Lead projects are multi-stakeholder joint ventures.
2. The process must be open, honest and transparent. All relevant information, data and audit reports must be available in the public domain for inspection.
3. Independent third party verification must be used to guarantee the credibility of Green Lead Certification.



Green Lead Protocols

There are ten Green Lead Protocols covering sound procedures for:

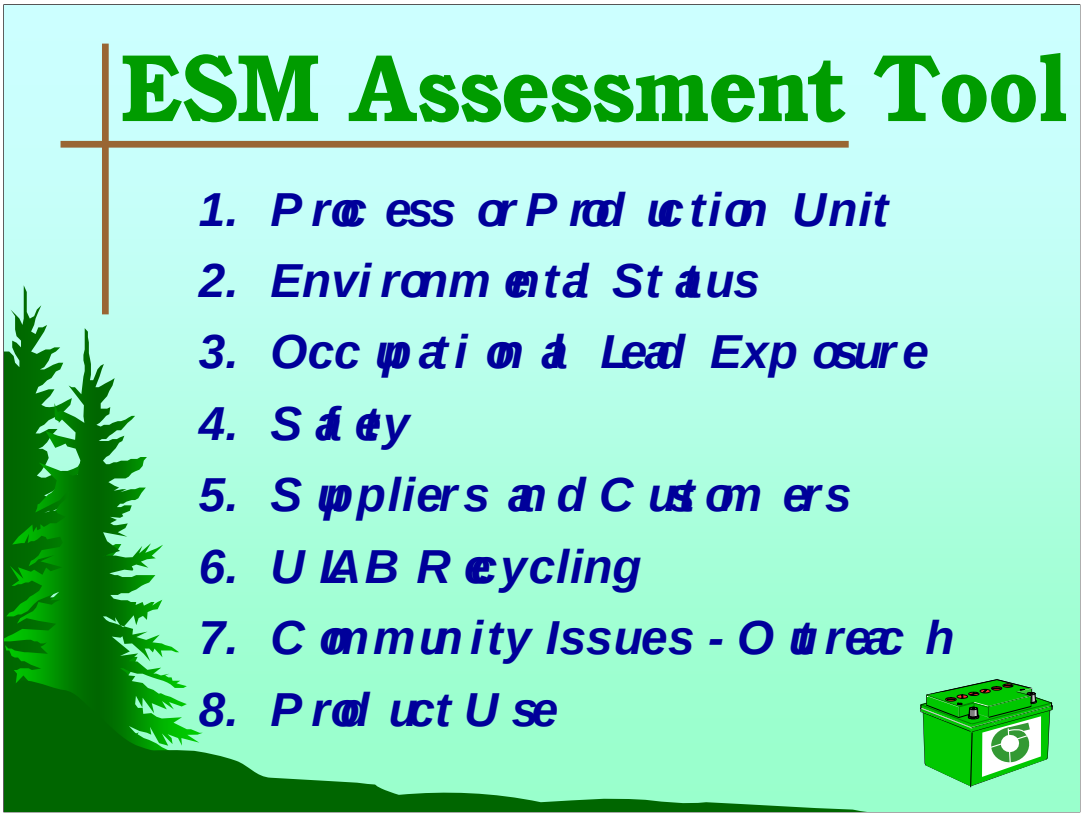
1. *Medical surveillance – Blood Leads*
2. *Solid Waste Management*
3. *Effluent treatment and discharges*
4. *Emission Control Systems*
5. *ULAB Collection, transport and shipping*
6. *Battery Labels*
7. *Public Communications and awareness*
8. *Site Sustainability*
9. *Community Outreach*
10. *Safety*

Green Lead Protocols - Focus

The Focus of the Protocols is on responsibility for products throughout the product chain and that includes effective communication, monitoring and implementation of the Protocols between the links in the product chain.

Furthermore, Green Lead examines recycling, and not just the process and regulatory compliance, but customer product awareness, recycling promotions, used lead acid battery collection and transport systems.

Finally, Green Lead incorporates important social dimensions, such as community engagement, respect of workers rights and social development in line with the International Labour Organization's (ILO) 1998 Declaration on the Fundamental Principles and Rights at Work.

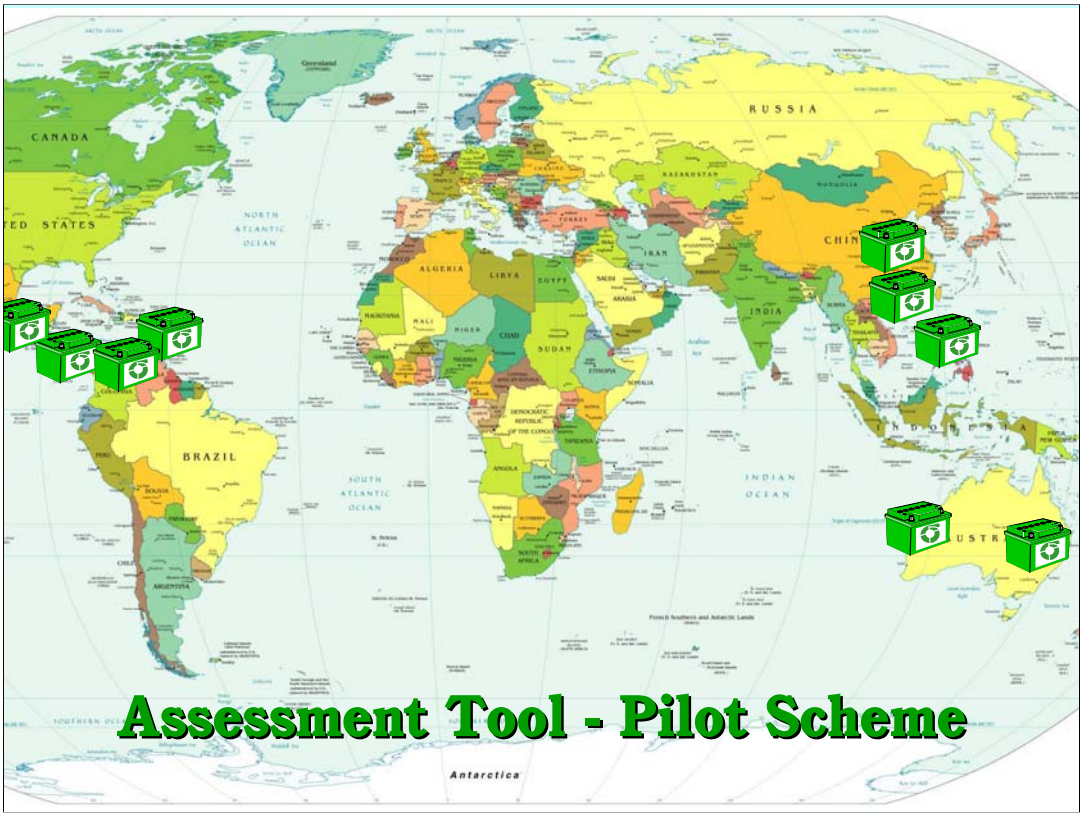


Green Lead Pilot Scheme – ESM Assessment Tool

The Green Lead Assessment Process is designed to determine the level of compliance with the Green Lead Protocols and can be used internally by organizations for "self assessment" or externally by third parties where an Independent assessment is required.

The assessment process examines eight factors essential to ESM:

1. *The Process or Production Unit*
2. *Environmental Status*
3. *Occupational Lead Exposure*
4. *Safety*
5. *Suppliers and Customers*
6. *ULAB Recycling*
7. *Community Issues – Outreach Activities*
8. *Product Use in the region or global – as appropriate*



Pilot Scheme – ESM Assessment Tool

The Green Lead ESM Assessment Tool was developed in partnership with the Basel Secretariat through a Pilot Scheme at a number of locations across the globe including mines, primary and secondary smelters and ULAB collection centers.

Typical examples of the Pilot Assessments can be downloaded from the Green Lead Web Site.

Green Lead Partners

Indeed, the implementation of the Green Lead Project has been a multi-stakeholder approach from the beginning and a partnership between the Industry Sectors, NGOs and Intergovernmental Agencies.

Green Lead Work Group

Oversight of the development and implementation of the Green Lead Initiative has been the Responsibility of the International Work Group. The Work Group members bring to the Project a wide range of experience and expertise in Environmental Management and Product Stewardship.

All decisions are based on consensus and all processes are subject to continuous peer group monitoring and improvement.

Chinese Green Lead Work Group

China is now one of the largest consumers of lead bullion and producers of lead acid batteries in the world, but the country has a number of unique problems to resolve as the Industry strives to improve environmental performance. Hence the decision to set up a Chinese Work Group to implement the Green Lead Project in China and establish a Green Lead network of companies and operations that are environmentally sound.

Two members of the International Work Group serve on the Chinese Committee and similarly two members of the Chinese Group serve on the International Committee, ensure a consistent approach to Green Lead across the Globe.

Green Lead Communication Media

All Green Lead Brochures, Guides, Protocols, Procedures and Assessment Forms as well as the case studies and newsletters on the web site are available in English, Spanish and Chinese.

Green Lead Certification – Why?

With so many regulations, conventions and restrictions applicable to the Lead Industry some may question the need for a Green Lead Certification Scheme. So why have one?

Because as consumers become more informed about products, they become more discerning. They demand not only quality and value, but they want to know the environmental footprint, the social consequences and future liabilities.

The application of Green Lead product chain management can provide a provenance that will satisfy the most diligent of consumers, but only Certification can provide evidence of compliance with the Protocols.

So Certification will close the Life Cycle "Loop" as products pass from one stage to the next.

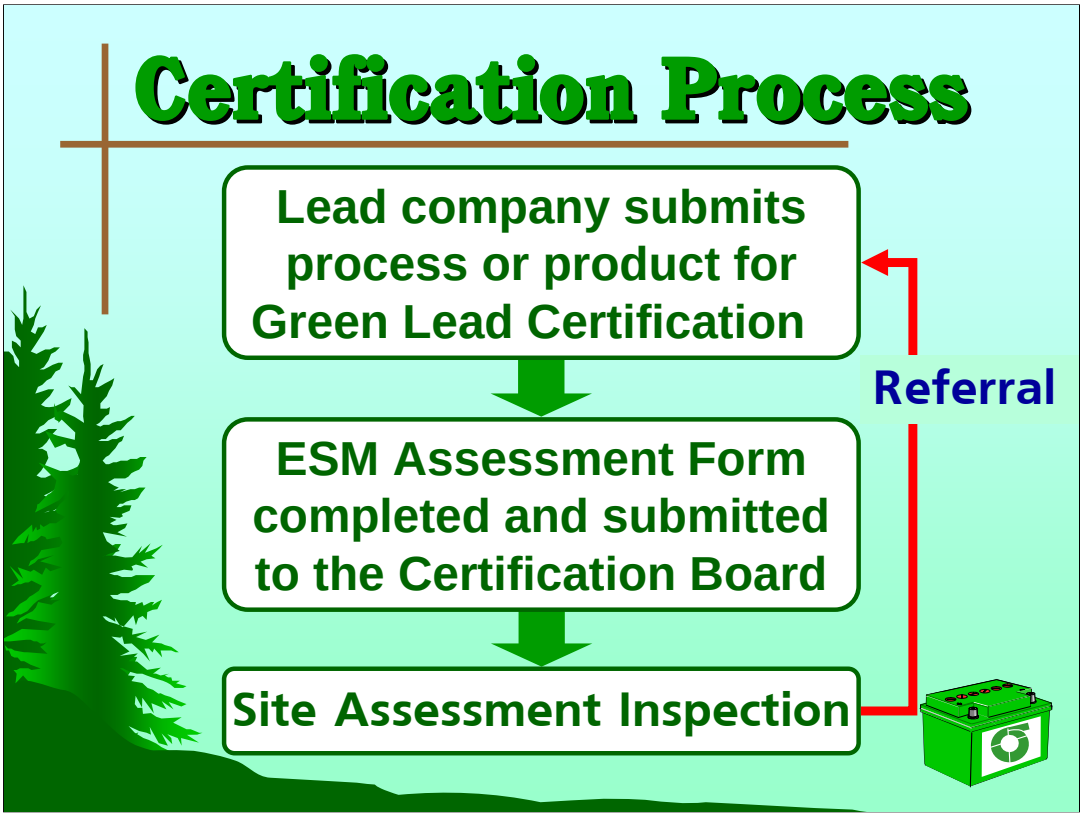
Certification will also provide the necessary guarantee of ESM necessary and essential for compliance with the regulations for the transboundary movement of ULAB.

And finally, the movement of products through a Green Lead life cycle will restrict access to ULAB and ultimately eliminate the "informal" recyclers.

Green Lead Certification – The Independent Audit

Whilst the ESM Assessment Tool can be applied internally or externally, the Certification Audit will be undertaken by an Independent Auditor. Essentially the auditor will check and verify:

- ✓ The initial Green Lead Assessment for ESM
- ✓ Compliance with prevailing national and international environmental, health and safety legislation, conventions and protocols.
- ✓ That there is in place a mechanism for continuous improvement and employee development
- ✓ The immediate levels above and below the chain of custody will be scrutinized
- ✓ That there is a system of open reporting procedures



Green Lead Certification Process

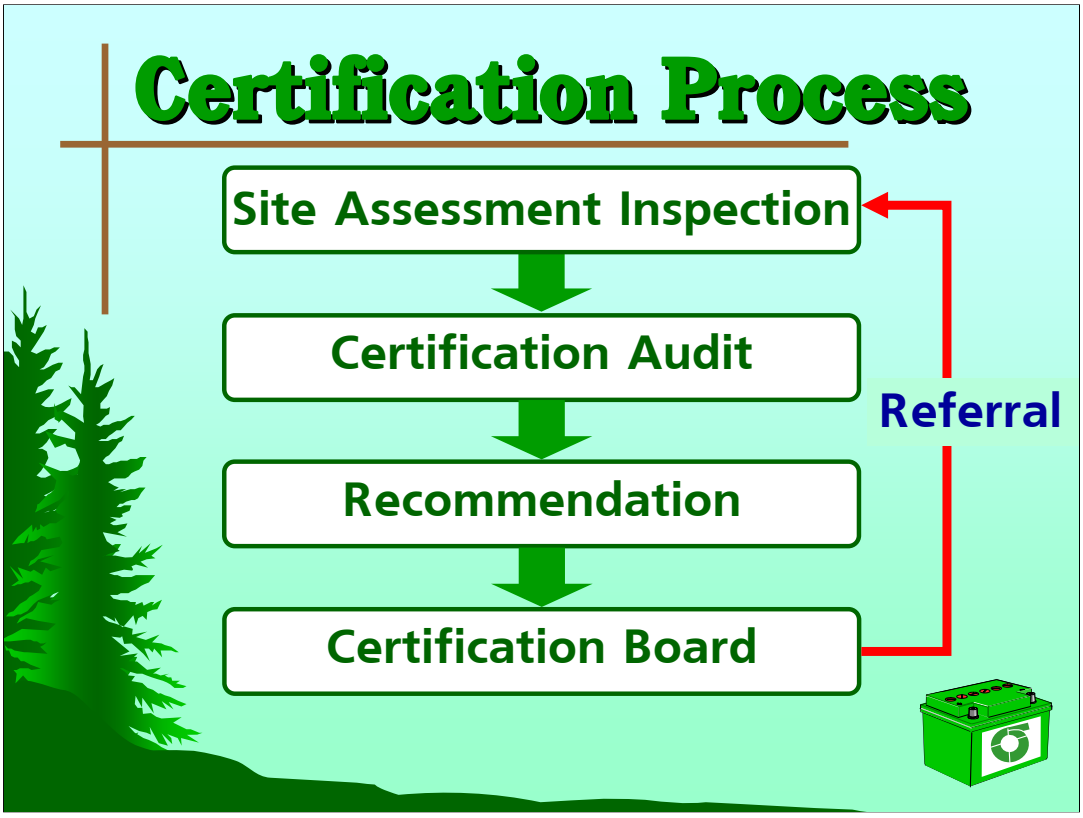
Stage 1: A company submits an application to the Secretariat for a process or product to be Green Lead Certified – If the application is accepted then….

Stage 2: An ESM Assessment Form is completed either internally or by an external assessor and submitted to the Green Lead Certification Board, made up of a cross section of members drawn from the Green Lead Work Groups. If the Assessment is in order, then…….

Stage 3: There is a site inspection by a trained Green Lead assessor to verify the Assessment Form. If the inspection fails to verify the Assessment for ESM, the application is referred to the Secretariat pending improvements. If the site inspection verifies the ESM Assessment, then…..

Green Lead Certification Process

Stage 4: An Independent Auditor is assigned to conduct a Certification Audit. The Auditor will submit a report with recommendations to the Certification Board.



Green Lead Certification Process

Stage 5: If the Auditor does not recommend certification – then a list of the necessary corrective actions is submitted to the Site Assessment Assessor who will visit the Company and agree an action plan to improve performance and achieve certification.

Green Lead Certification Process

Stage 5: If the Auditor does recommend certification – then…

Stage 6: The Certification Board will check that all credentials are in order and then…..

Stage 7: Certify the product or process and issue a licence agreement for the use of the Green Lead Logo.

Certification Timetable

So when is the Certification Process to be implemented?

Well, the Pilot Program is scheduled to commence in January 2009 working in partnership with the Basel Secretariat in Central America and the Caribbean; and in China through the Companies in the Work Group.