7th International Secondary Lead Conference

Secondary Lead Recycling in Africa

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Presentation Structure

- About Africa & Africa at a glance
- Challenges in Africa in general
- How Lead recycling in Africa
- Industrial Challenges in Africa
- Gravita Operations in Africa
- Senegal … A Journey of Informal lead recycling to Eco friendly recycling and “Bench Marking by ILMC ”
- Gravita’s new recycling operations
- Way Forward

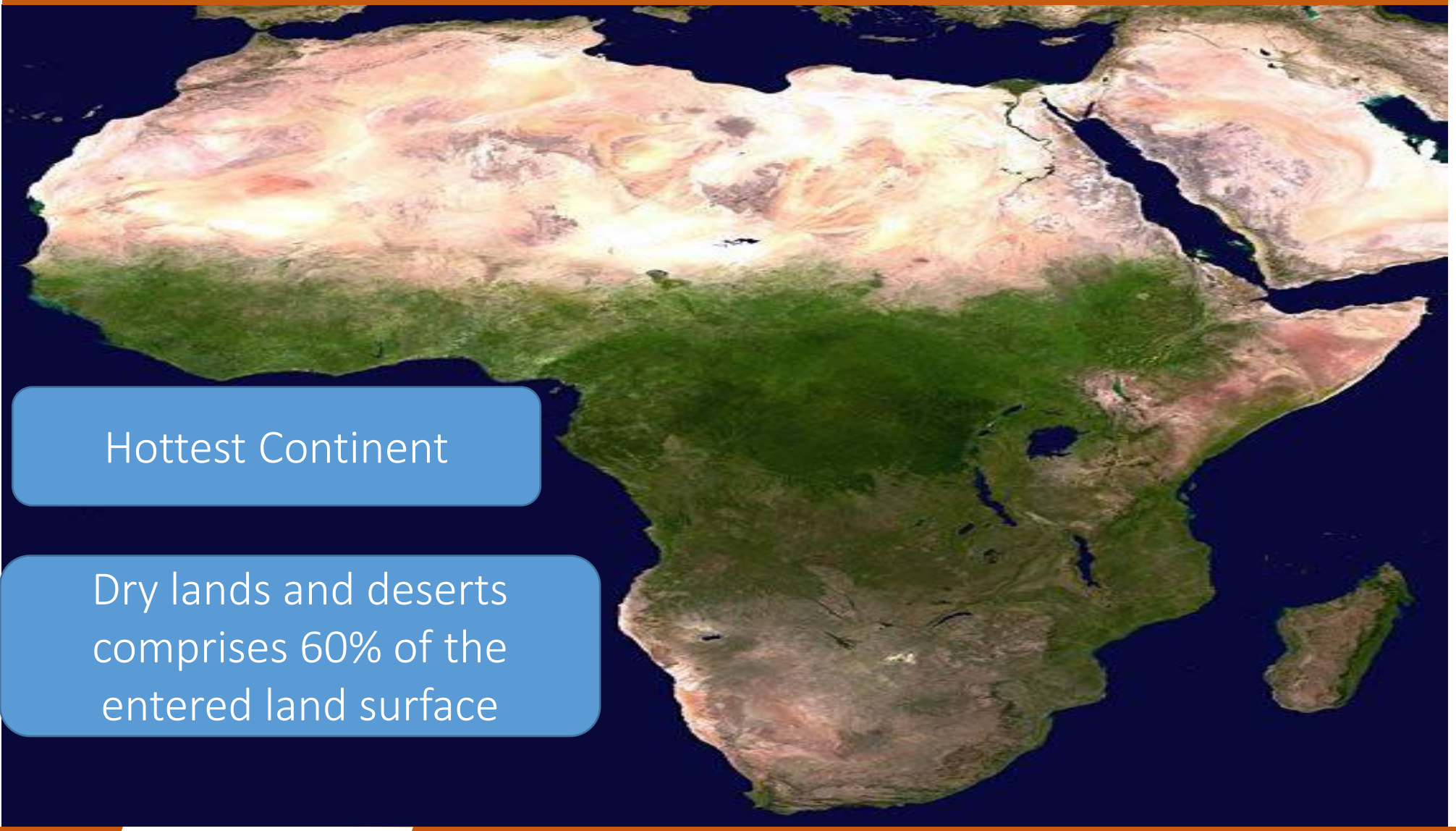
About Africa

- Second largest continent
- Covers 6% of the earth & 20.4% of the land
- 15% of the world's total population
- Vehicle population (4 Wheelers) – **Close to 40 per thousand** against **global average of 300**
- **One of the Largest E-waste generator**
- Demographic profile around 40 years, some of the countries has more than 50% population of age 25 years
- Biggest economies : South Africa followed by Egypt, Nigeria, Algeria, Morocco

Africa at a Glance

54 nations & 9 Territories

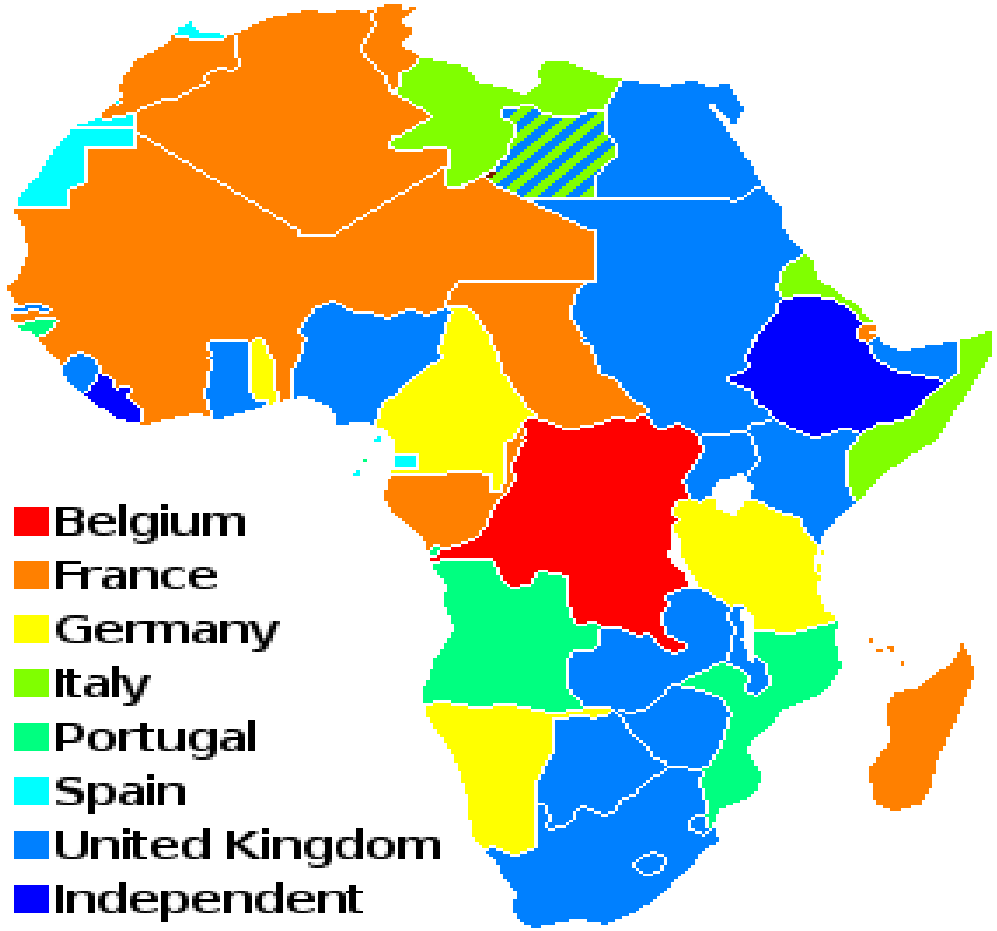
Africa at a Glance



Hottest Continent

Dry lands and deserts comprises 60% of the entered land surface

Colonial Powers

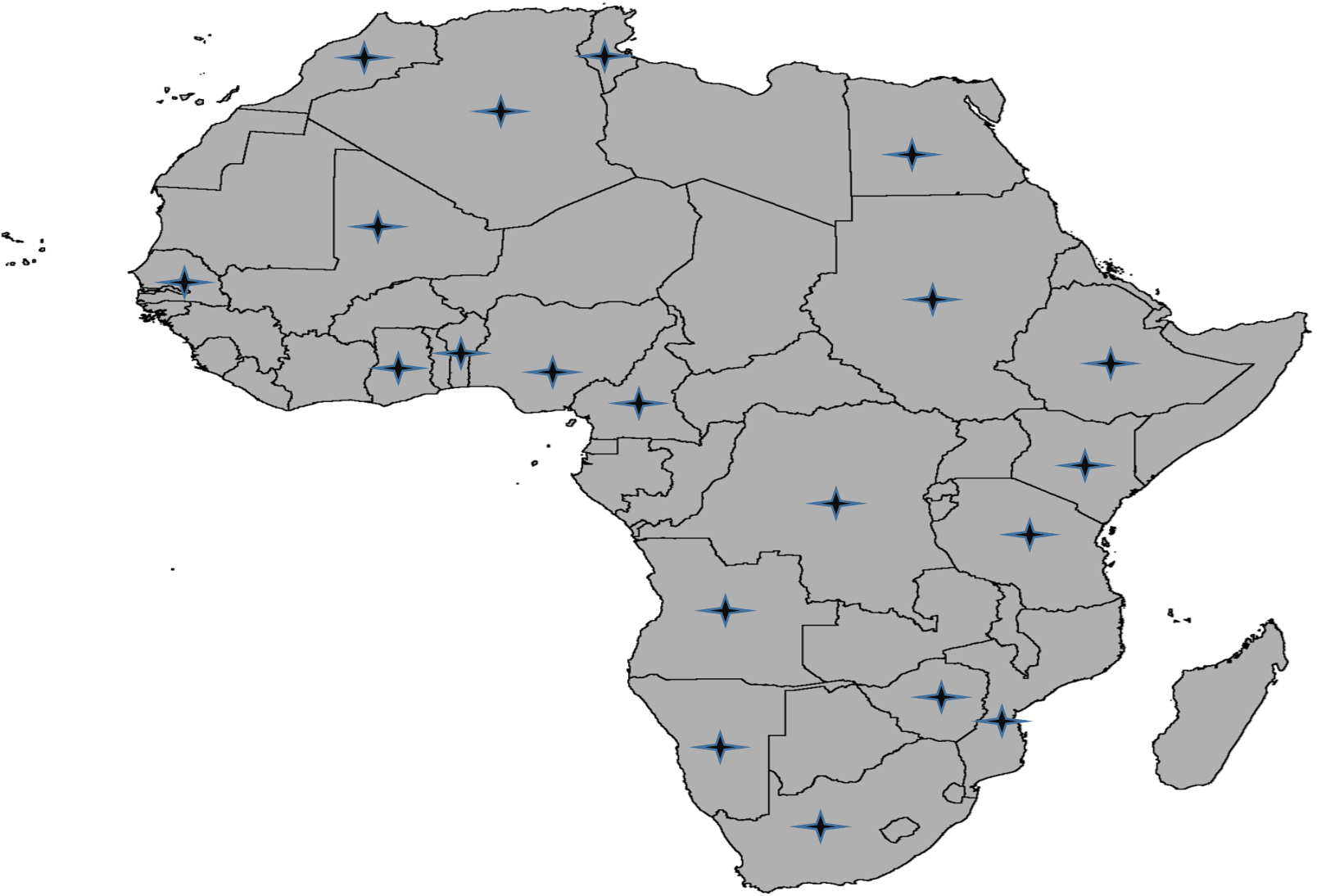


Culture, Language and Living influenced by colonial powers

Challenges in Africa

- Poorest and Most under developed continent
- Spread of deadly diseases – HIV / AIDS / Malaria
- Human rights violation
- Failed Central planning
- Poverty & low level of education
- Very high corruption
- Mall Nutrition & poor Health
- Inadequate potable water
- Frequent military and tribal conflicts

Lead Recycling in Africa



- Most of the countries has recycling operation
- Largely smelting operations ..(Battery Scrap to Lead Bullion)
- Smaller capacity plants ….. @6000 Mt Annually
- Most of the operations are manually
- Very low EHS levels
- ~ Mt Lead Smelting

Industrial Challenges

- Scattered availability of Raw material / Scrap
- Poor Connectivity with rest of the world
- Skilled Man power (Only unskilled class available)
- Availability of Critical Machine Components / Chemicals
- Safety for working professionals
- Theft / Robbery of goods
- Inadequate Industrial infrastructure
- Logistic limitations … availability of vessels

Industrial Challenges

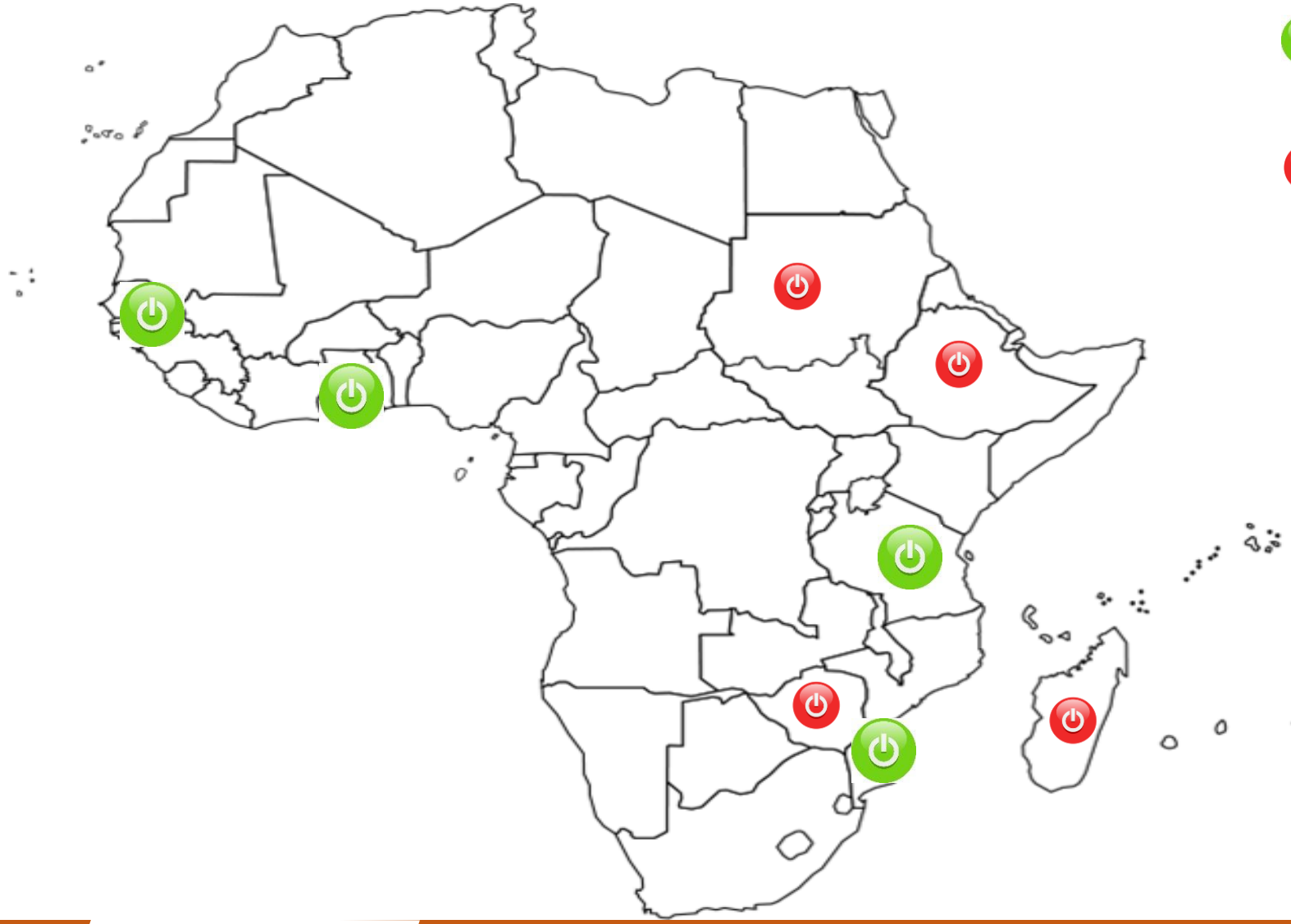
Financial Transactions and Banking System

- Africa lags behind the rest of the world in financial depth
- Most of transactions routed through Non African Financial system
- Poor understanding about Global Financing Trends
- Safety of Transactions

Last but not least – there is no consumption for the metal produced, Nearest Consumption centers are Europe, Asia and America

Gravita in Africa

Gravita Operations in Africa



- Operations in Ghana, Senegal, Mozambique & Tanzania
- Exited from Sudan, Ethiopia, Madagascar & Zambia
- Scrap Battery collection Yards across African continent , supplying scrap batteries to plants located in Africa as well as to India
- 60000 Mt Battery Smelting operation
- Ghana plant in process of ILA accreditation

Our Efforts in Senegal.. Case Study

- Outbreak of lead intoxication in Thiaroye sur Mer, Senegal
- Area was contaminated with lead from the informal recycling of lead batteries
- Lead concentrations up to 30% were measured outdoors, while up to 1.4 % were measured indoors
- Children were seen to play with this contaminated soil
- Very high blood lead levels, in many cases above 1000 µg/L

How was recycling in Senegal

Gravita in Senegal

- Incorporated in year 2007 in Dakar, Senegal
- Gravita have joined forces, working with and supported by United nations Environmental Program
- Prime activity **“Battery Scrap Recyclers"**
- **Collected contaminated soil from different corners and made it lead free**
- Quality manufacturer of Re-melted Lead Ingots, Polypropylene Chips
- Generating export revenue for the country
- Now developing “State Of art integrated Recycling Operations..Scrap Battery >> Refined Lead & PP Granules …. **A 360° Approach**”

Transformation in Senegal

Gravita Senegal ..ILMC Visit

7th International Secondary Lead Virtual Conference

Process Benchmarking

Gravita's Initiatives

Skill Development

Relationship with Local authorities

Medical camps

Generating employment

Gravita's new recycling Operation

GRAVITA…. The only Integrated recycling operation in Africa

Way Forward

- Safe collection of Scrap batteries across borders as well as within country
- Transportation to nearest recycling location
- Eco friendly recycling of scrap lead batteries
- Holistic implementation of EHS
- Generating export revenue for the country
- Bench marking and continuous improvements

Thank You !!