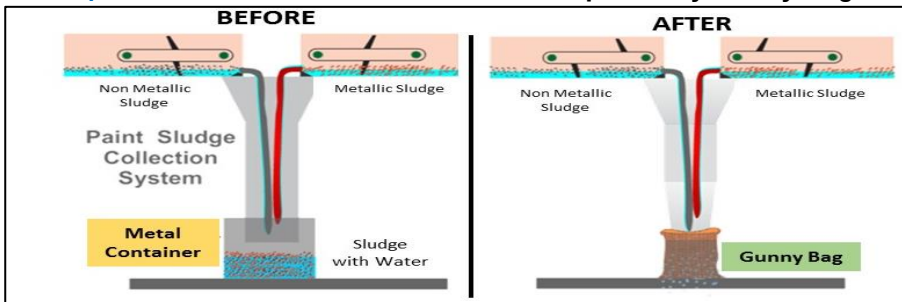


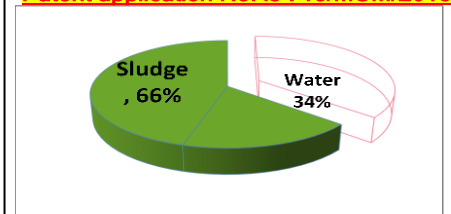
## One Page Summary

1. The name of the quality sustainability project - "Waste to Wealth"-Coating Formulation using Waste Paint Sludge.
2. Name of Company – Mahindra & Mahindra Ltd. (Automotive Division) Nashik 422007
3. Essence of Project – Elimination of Hazardous waste Paint Sludge disposal process of landfill on Earth.
4. Problem Statement – Traditionally, Process of Painting generates paint Sludge. It's a by-product of the Painting Process. It's a hazardous waste. Needs to be disposed as per Govt Regulations. Additional cost to Company, to pay for the disposal of Paint sludge. So, Degradation of natural resources & consumption of Paint for Painting Process.
5. Steps taken, methods used, analysis performed, etc.

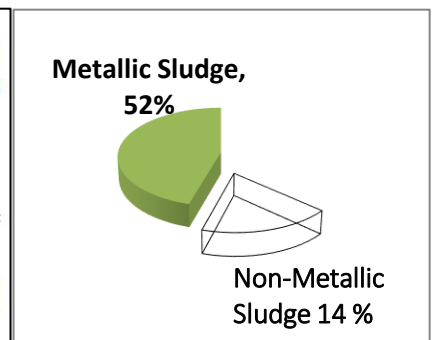
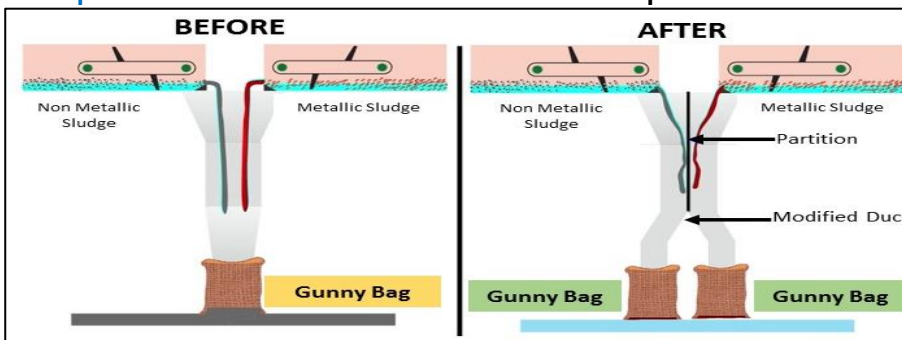
### Step-01 Innovation-01 Metallic Container replaced by Gunny Bag, Dewatering of Paint sludge



The invention is titled as "System for dewatering paint sludge".  
Patent application No. is 713/MUM/2013



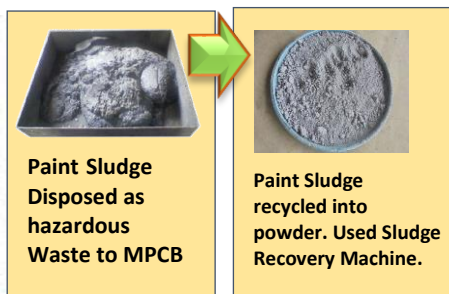
### Step-02 Innovation-02 Reuse of Non-Metallic for primer Paint



### Step-03- Innovation 03 Convert Metallic Dry Sludge into Powder



Paint Sludge Recovery Equipment



The invention is titled as "Powder paint formulation and process of preparation thereof"

Patent application No. is 322/MUM/2015

### Step-04- Innovation 04 Paint Sludge powder used for Powder Coating Process.




Powder coated Spares with paint Sludge Powder.

- We have utilised all internal Sources to complete this Sustainability Project.
- Paint Sludge Dryer is procured from Vendor for conversion of Paint Sludge into Powder.
- Paint Powder Manufactured with existing vendor.

- Paint Powder is utilised by existing powder coating supplier for internal Spares.

## 7.Results Achieved

- Carbon footprint reduced by  17,55,000 Kg Landfill Process Eliminated for Disposal of sludge.
- **Sustainable Quality Project** -Landfilling Proecess for paint sludge disposal is Eliminated.
- Additional Benefit Paint Sludge Disposal Cost-
- Rs. 11.80 Lakh/annum by Dewatering paint Sludge -Innovation 01
- Rs. 6.94 Lakh/annum Non-Metallic to Primer Paint Process - Innovation 02
- Rs. 30.24 Lakh/annum by converting paint sludge into powder- Innovation 03
- Rs. 67.00 Lakh/annum Potential cost saving by Powder as Extender in Powder coating Innovation 04
- **Unique initiative first time in Automotive Industries. Applicable to Industries where painting process.**

Parameter for Quality Test of Powder coated part	Powder available in market	Powder Prepared with Paint Sludge waste	Remark	Life Cycle
Salt Spray Test	200-240 Hrs.	600-680 Hrs.	<b>Better Sustainable Quality of Sludge Powder coated spares</b>	300% More than market Powder Quality

## 8. UN Sustainability Development Goal(s) affected-

### GOAL 12: Responsible Consumption and Production- Chemicals and waste-Hazardous Waste

Any Automobile company having Paint shop which utilized paint for Painting of Bodyshells as per the requirement. So from the above Innovations, we had followed the responsible consumption of Paint as well as the Waste of paint as paint sludge from Painting process is Reduced, Reused & Recycled to eliminate the disposal in Landfill. Managed Hazardous waste A substantial use of chemicals is essential to meet the social and economic goals of the world community, and these can be used with a high degree of safety when best practices are followed. Effective control of the generation, storage, treatment, recycling and reuse, transport, recovery and disposal of hazardous wastes. Prevention of the generation of hazardous wastes and the rehabilitation of contaminated sites are the key elements, and both require knowledge, experienced people, facilities, financial resources and technical and scientific capacities. Preventing or minimizing the generation of hazardous wastes as part of an overall integrated cleaner production approach. Eliminating or reducing to a minimum transboundary movements of hazardous waste. Managing hazardous wastes was discussed by the Commission on Sustainable Development (CSD) at its second, fifth, seventh, eighteenth and nineteenth sessions and by the General Assembly at its nineteenth Special Session.

## 9.An appropriate picture or image that reflects the project and the results-

