



The project "Eco-industrial Parks Intervention in Vietnam" funded by the Swiss State Secretariat for Economic Affairs (SECO), and implemented by the United Nations Industrial Development Organization (UNIDO) in collaboration with the Ministry of Planning and Investment (MPI) improves the environmental, economic and social performance of industries in Viet Nam through the implementation of eco-industrial park approach in selected pilot industrial parks and relevant policies at the national level.

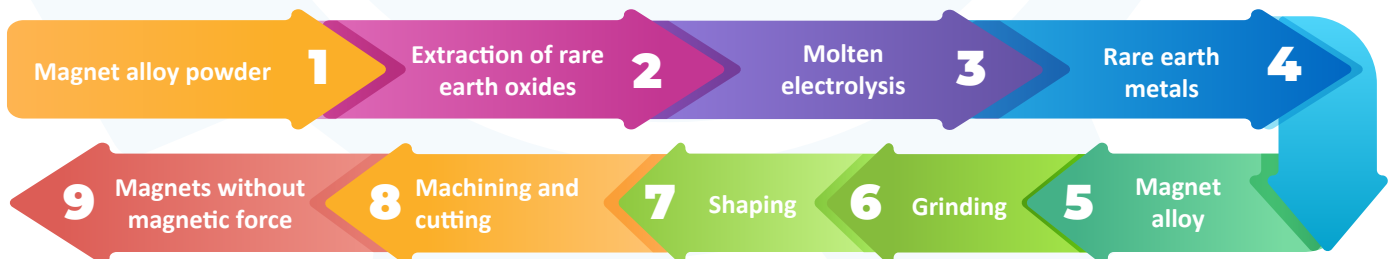
The project supports more than 100 businesses in pilot industrial parks to apply Resource Efficient and Cleaner Production (RECP) to improve the living quality of the workers and promote sustainable production.

## COMPANY INFORMATION



**Company name:** Shin-Etsu Magnetic Materials Vietnam Co., Ltd  
**Address:** : Lot CN5.2D, Chemical and Petrochemical Zone , Dinh Vu Industrial Park, Dong Hai 2, Hai An, Hai Phong, Vietnam (Deep C Hai Phong)  
**Key products:** Rare earth magnets  
**Factory area:** 137,000 m<sup>2</sup>  
**Number of workers:** 1,863

## PRODUCTION PROCESS



## WASTE STREAM

### Wastewater

- » Domestic wastewater: 28,077 m<sup>3</sup>/year
- » Industrial wastewater: 124,189 m<sup>3</sup>/year
- » Overflowing rainwater

Wastewater is collected and pre-treated before being connected to the industrial park's wastewater treatment system

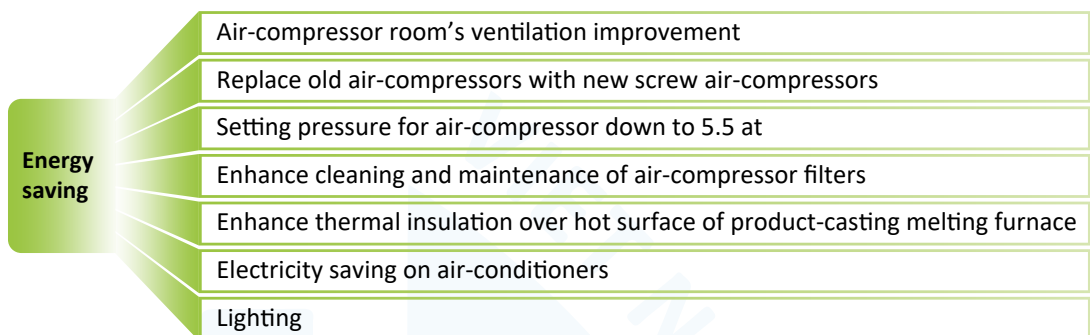
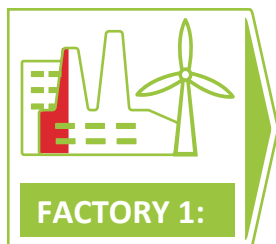
### Solid waste

- » Hazardous waste: 113 t/year is collected and treated according to regulations
- » Recyclable waste: 364 t/year including scrap iron, nylon, carbon electrode, paperboard, plastic, wood, drums, IBC plastic containers

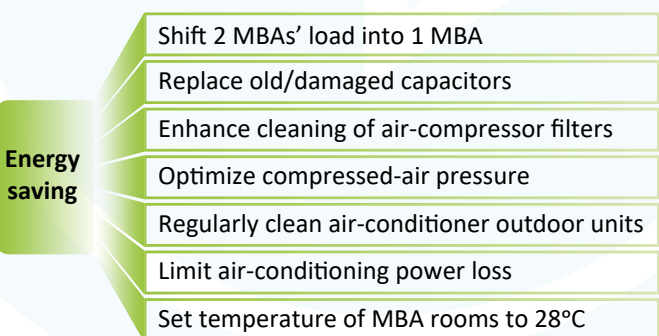
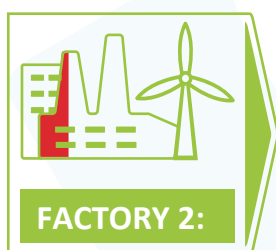
# THE PROJECT'S INTERVENTIONS AND IMPACTS

## The Project has supported:

- » Capacity building training on RECP and industrial symbiosis for technical staff of enterprises
- » Assessment of RECP by project experts
- » Proposing technical solutions to improve the efficiency of resource use and improve production efficiency of enterprises



Solution Type	Potential benefits	Implemented results
Save energy	<b>7 solutions</b> to reduce electricity consumption of 2,313 MWh/year (equivalent to 1,860t CO <sub>2</sub> /year), to save 4.67 billion VND/year (188,478 USD/year)	<b>5 solutions</b> to reduce electricity consumption: 469 MWh/year (equivalent to 377t CO <sub>2</sub> /year), to save 938 million VND/year (39,835 USD/year)
Save water	<b>1 solution</b> to reduce water consumption: 722 m <sup>3</sup> /year, equivalent to save 25.4 million VND/year (1,077 USD/year)	<b>1 solution</b> to reduce water consumption: 722m <sup>3</sup> /year, equivalent to save 25.4 VND million/year (1,077 USD/year)
Save heat energy	<b>3 solutions</b> to save fuel consumption: 16.56t LPG/year (equivalent to 1,510t CO <sub>2</sub> /year) to save 646 million VND/year (27,595 USD/year)	<b>3 solutions</b> to save fuel consumption: 16.56t LPG/year (equivalent to 1,510t CO <sub>2</sub> /year), to save 646 million VND/year (USD 27,595/year)
<b>Total</b>	<b>11 solutions: 5.1 billion VND/year (217,150 USD/year)</b> - Power saving: 2,313 MWh/year - Water saving: 722 m <sup>3</sup> /year - Fuel saving: 16.56t LPG/year - Emission reduction: 3,370t CO <sub>2</sub> /year	<b>9 solutions: 1.6 billion VND/year (68,507 USD/year)</b> - Power saving: 469 MWh/year - Water saving: 722 m <sup>3</sup> /year - Fuel saving: 16.56t LPG/year - Emission reduction: 1,887t CO <sub>2</sub> /year



**Water efficiency solution**

- Reduce hand wash faucet flow to 6 liters/min
- Reuse of water from the magnet washing process
- Overall adaptation of some other water-saving solutions

Solution Type	Potential benefits	Implemented results
Save energy	<b>7 solutions</b> to reduce electricity consumption: 186,940 kWh/year (equivalent to 150t CO <sub>2</sub> /year) and save 374 million VND/year (15,876 USD/year)	<b>6 solutions</b> to reduce electricity consumption: 147,520 kWh/year (equivalent to 118t CO <sub>2</sub> /year) and save 295 million VND/year (12,528 USD/year)
Save water	<b>3 solutions</b> to reduce water consumption: 39,420 m <sup>3</sup> /year, equivalent to save 1.4 billion VND/year (58,867 USD/year)	<b>3 solutions</b> to reduce water consumption: 39,420 m <sup>3</sup> /year, equivalent to save 1.4 billion VND/year (58,867 USD/year)
<b>Total</b>	<b>10 solutions: VND 1.77 billion/year (74,743 USD/year)</b> - Power saving: 186,940 kWh/year - Water saving: 39,420 m <sup>3</sup> /year - Emission reduction: 150t CO <sub>2</sub> /year	<b>9 solutions: 1,69 billion VND/year (71,395 USD/year)</b> - Power saving: 147,520 kWh/year - Water saving: 39,420 m <sup>3</sup> /year - Emission reduction: 118t CO <sub>2</sub> /year