This project focused on the reuse of grinding swarf and wastewater treatment sludge as high-value materials after dewatering and oil removal processes.

Research Plan:

- Literature review on current practices
- Characterization of grinding swarf and wastewater treatment sludge samples
- Evaluation of dewatering and oil removal processes
- Separation of valuable materials from the pretreated samples
- Optimization of the selected recycling process
- Economic viability analysis

Waste Water Treatment Sludge Recycling
- Materials will vary depending on the industry and type of manufacturing location.
- Dewatered sludge in a conventional drying bed still contains a huge amount of water.

Grinding Swarf Recycling
- Materials will vary depending on the industry and type of manufacturing location.
- Machining fluids and low melting recoveries diminish the value of grinding swarf recycling.
- Swarf coated with cutting oil could be highly flammable.

RESEARCHERS

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