

Improving FSM investment decisions by estimating total solids from rapid in-situ penetrometer tests

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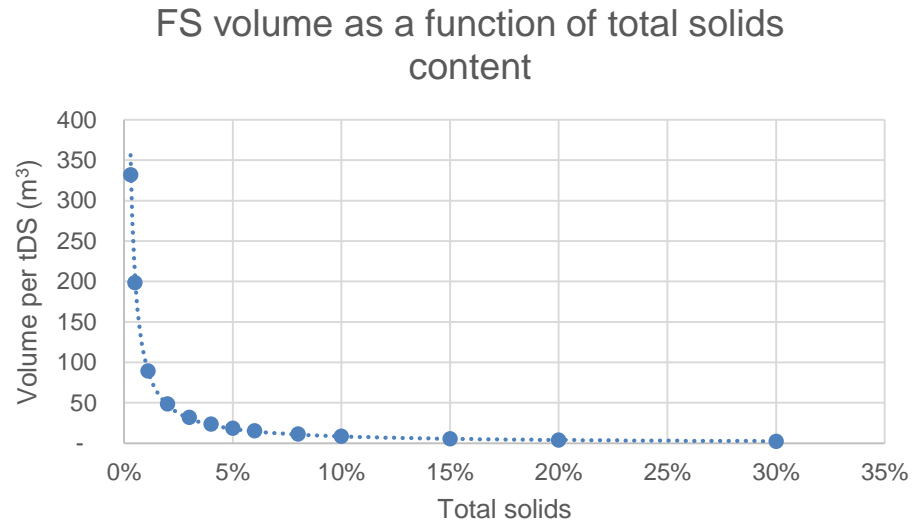
Jamie Radford, Jonathan Choksey, Steve Sugden, Martin Maweje,
Loretta Nakayima, Alice Cellamare



Mott MacDonald, Water for People, GIZ

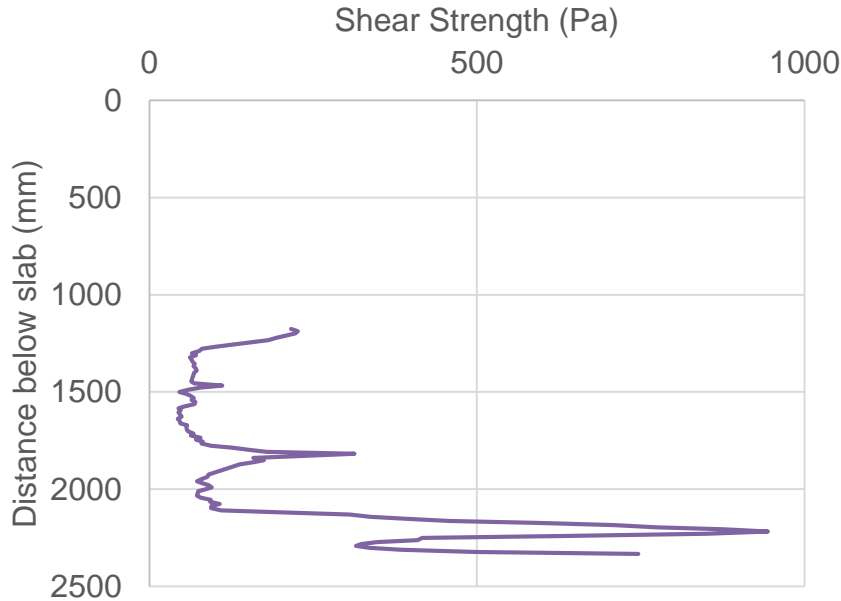
What influences investment cost?

- Treatment and transport costs highly dependent on volume of sludge
- Volume dependent on total solids



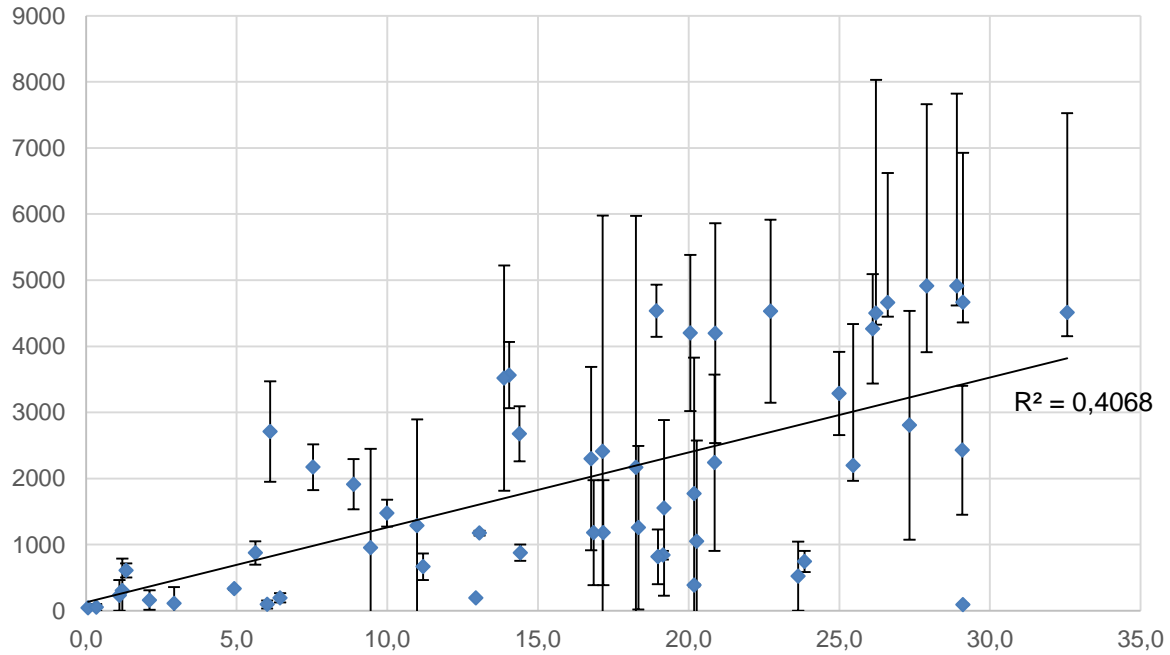
Can shear strength be used as a proxy?

Field work using portable penetrometer



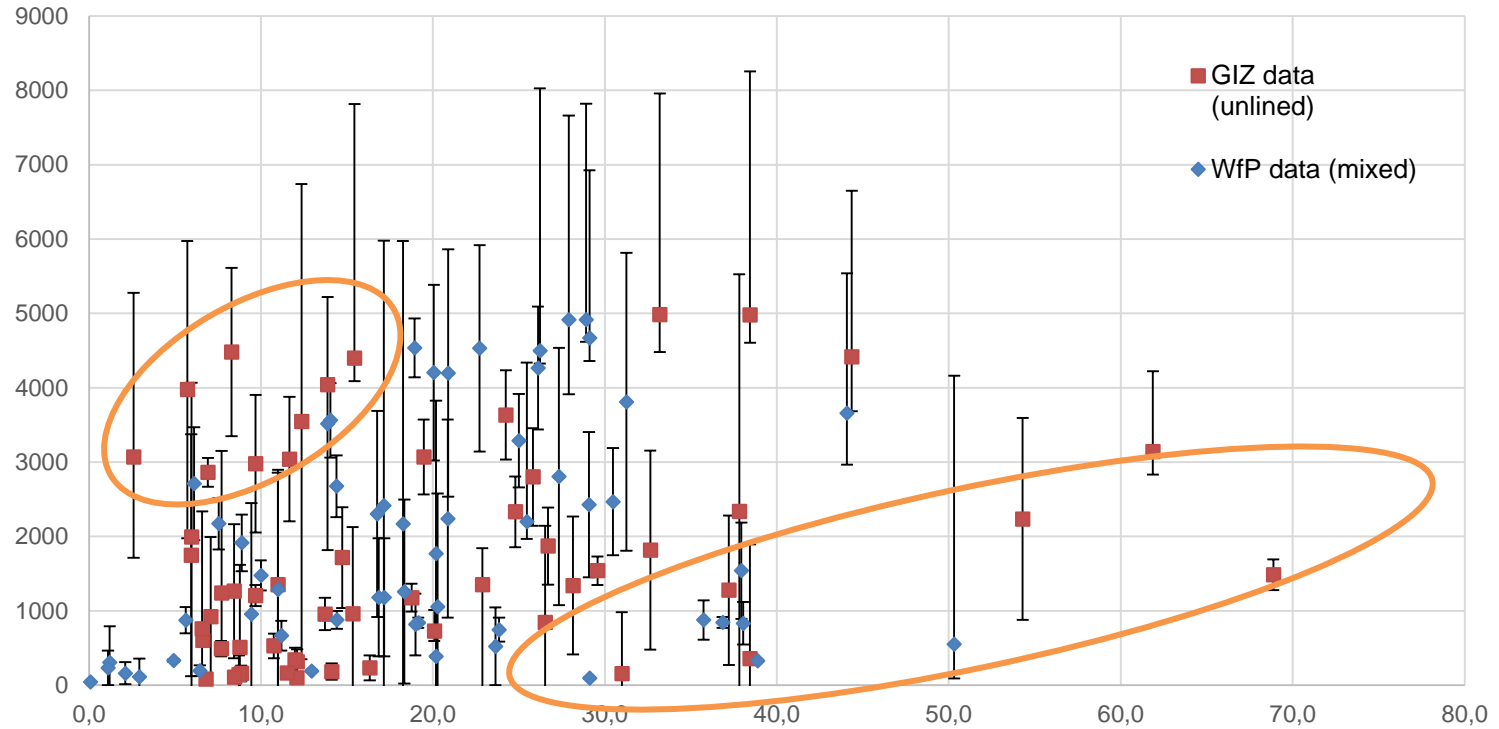
Initial Data

Mixed unlined/lined pits



Full Dataset

All pits



Things to note:

- Dataset collected in very little time
- Unintentional focus on unlined pits

So what next?

- Links to wider work on sludge characterisation
- Would disaggregating data improve correlation?