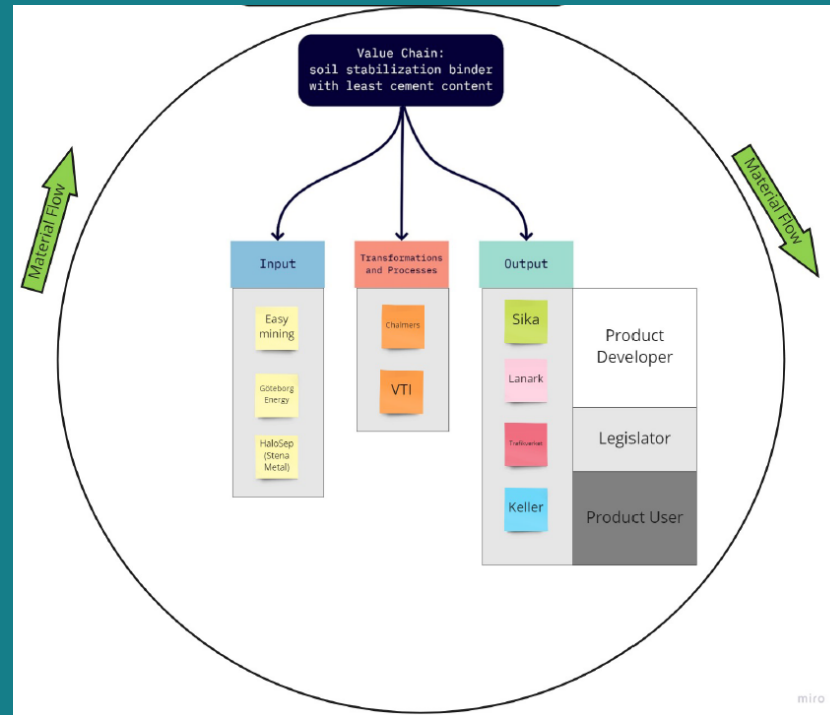


Mot en klimatneutral och resurseffektiv markstabilisering tillsatsmedel: NewSoilBind

Start datum 31 maj 2021

Slutdatum 31 maj 2023



INFRA
SWEDEN 2030

Med stöd från

VINNOVA
Sveriges innovationsmyndighet

Energimyndigheten

FORMAS

Strategiska
innovations-
program

www.infrasweden2030.se

Projektets syfte: **Lets use less cement!**

How?

development of a **new prototype soil stabilization additive** based on the more sustainable binder and aggregate using solid wastes and/or calcinated clays is proposed in this proposal.

The solid wastes in focus include:

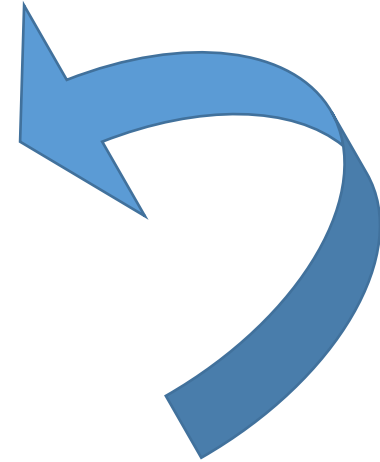
- Different sources of bio ashes with different biomass origins.
- MSWI ashes.
- Fine particles from production of crushed aggregate and recycled concrete aggregate.
- Silica sand, a waste material produced in the process of recycling phosphorus from sewage sludge ash.

And we would like to even use natural resources which we have researched a lot on: Calcined clays

It should, however, also be noted, that although further technical research on this topic is crucial for obtaining a more sustainable transport infrastructure, the realized application of the new proposed solutions could still be challenging due to needed standardization which can be a major barrier to the introduction of new solutions. **Consequently, the necessity as well as the procedure of adjusting the current standards are also considered in the proposed project.**

Projektets tre viktigaste resultat?

- 1. Administration and material flow management (Circular Economy scenarios):** To obtain and define the relationships and managerial systems required for enabling material flows in the defined value chain for the product in focus.
- 2. Prototype design (TRL6):** To develop new binders and aggregates/fillers to be utilized for soil stabilization in laboratory scale in a simulated environmental condition.
- 3. Demonstration (TRL7):** To apply the developed materials in a pilot scale real application



Standarder och krav?

Viktiga lärdomar från projektet

Utlysning: Cirkulär och klimatneutral industri Från teori till praktik

Circular and climate neutral cement replacement materials industry: Need for Standardization, market analysis and policy making (SCM-Force):

aiming for real-life execution of our scientific and technical line of research, this project is defined to deal with investigations in terms of required standardizations, environmental/economical/social aspects of the market impact along this new value chain as well as proper communication of these outcomes to the authorities, policy makers and the government.