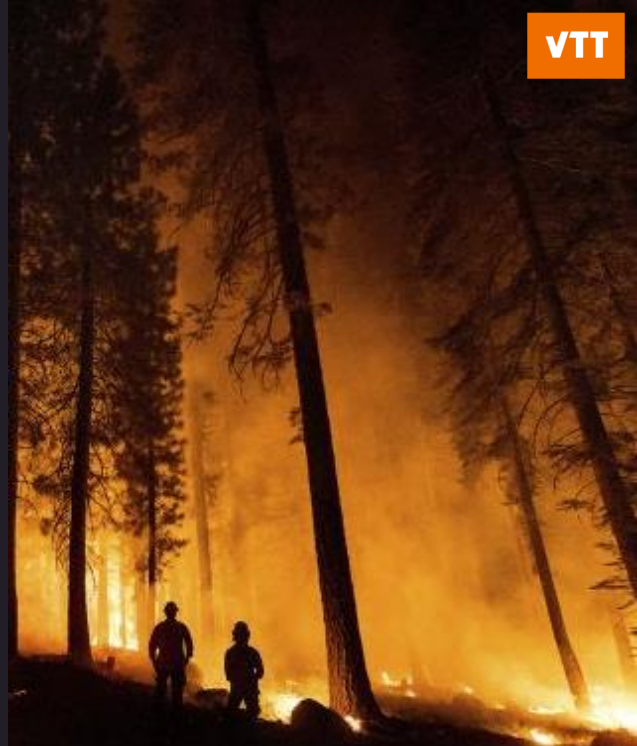


Calciⁱner

**Calcination-based solutions for
Negative Emissions and Reduction**



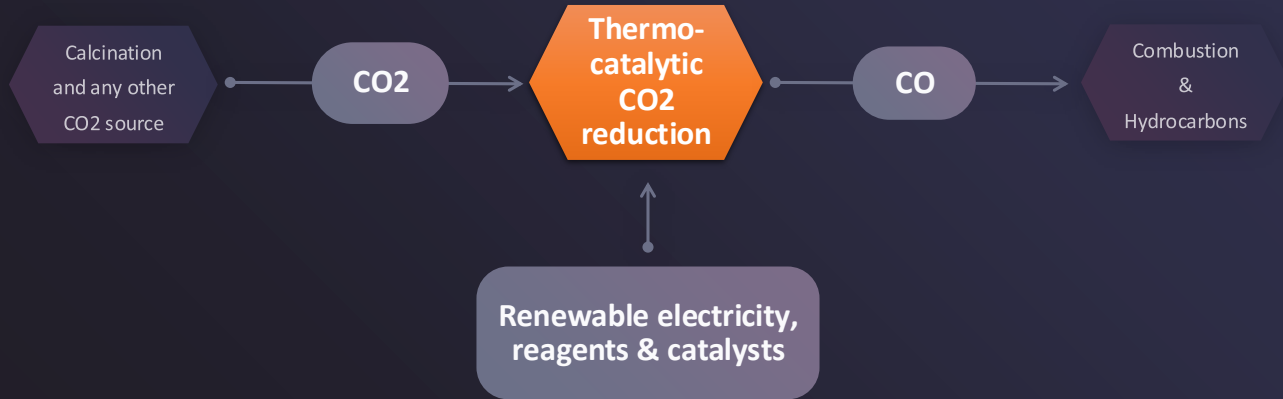
**To mitigate climate change,
we'll need methods to
reduce emissions from heavy
industries, as well as
economically viable
solutions to utilize hard-to-
avoid carbon dioxide
emissions.**





**Our solutions are
converting fossil-based
processes like cement
& lime production from
carbon dioxide
emitters to sustainable
solution!**

Base process and reaction



Sustainable use for produced CO- gas



eFuel gas

Producing sustainable eFuel gas for the combustion based processes which are hard to electrify directly.

Fossil based processes can be converted and retrofitted for carbon-neutral energy based solution.



Synthetic hydrocarbons

Hydrogen efficiency is significantly improved at synthetic hydrocarbon production, when rWGS is replaced with Calciner's solutions.

The loss of valuable hydrogen in the traditional production process is avoided.

Business potential

| Market size at 2050 | | |
|----------------------------|-----------------------|---------------------------|
| eFuel gas for internal use | | |
| Pulp €5B | Lime €30B | Cement €150B |
| Synthetic hydrocarbons for | | |
| Chemicals €100B | Marine fuels €500B | Aviation fuels €1.200B |

Calciner's methods can decrease opex & capex above 20% at synthetic hydrocarbon production, and we can produce eFuel gas which use cost is lower than fossile-based fuels.

Intellectual Property

Our solutions are based on well-known reactions that have been widely verified.

Thanks to electric calcination, and the high temperatures it requires, reactions are faster and more efficient than previously known.

The way how these methods are connected to each other is new, and which for we have several pending patents.



Team



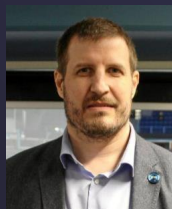
Sampsu Vuori

**Conceptualization
and carbon
sequestration**



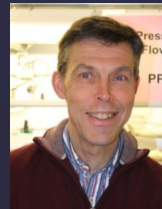
Dr. Eemeli Tsupari

**Calcination and
carbon dioxide
utilization**



Ami Rubinstein

**Commercial
business
development**



Dr. Pekka Simell

**Gasification and
synthesis gas
processing**

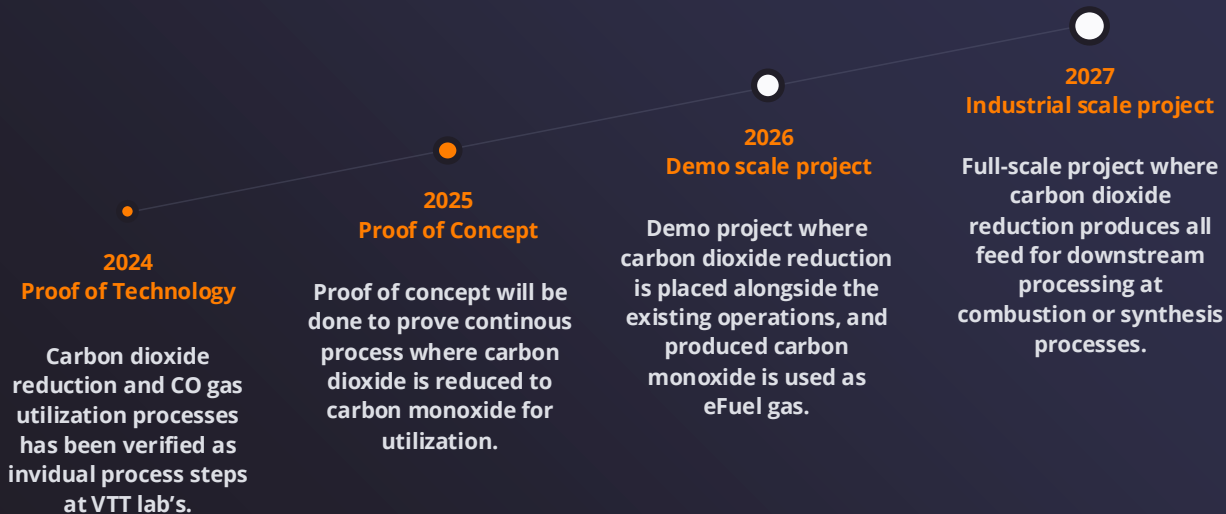


Esko Salo

**Reagents and
co-product
valorisation**



Timeline & scaling



Calciner

calciner.tech