

Carbfix

European Framework Programme for R&I – Innovation Fund Synergies Workshop Ragna Björk Bragadóttir

Basalts and other reactive rock formations

CO₂ dissolved in water

Solid carbonates

 $CaCO_{3 (s)}$ MgCO_{3 (s)} FeCO_{3 (s)}

Ca²⁺, Mg²⁺, Fe²⁺_(aq)

CO₃²⁻(aq)



Carbfix captures CO_2 and turns it into stone underground in under two years through proprietary technology that imitates and accelerates natural processes, providing a permanent and safe carbon storage solution.

























Carbfix2

- Direct Air Capture
- On shore injection
- Off shore injection
- Economic/feasibility of the entire CCS cycle
- Dissemination and public acceptance





Carbfix2 ORCA Mammoth Direct Air Capture Project A Silverstone On shore injection Off shore injection Economic/feasibility of the entire CCS cycle • Dissemination and public acceptance





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 DemoUpCarma
 Coda





Carbfix2 **ORCA** Mammoth Direct Air Capture Project A Silverstone On shore injection Off shore injection Seastone Economic/feasibility of the entire CCS cycle DemoUpCarma Dissemination and Coda public acceptance **Terminal**



- Lower emissions from geothermal power
- Feasibility of using Carbfix in older basalts
- Improved re-injection design
- Quantify subsurface reactions
- Developing new monitoring methods





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Project A Silverstone





- Lower emissions from geothermal power
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- Sorpa Project

Coda

Terminal

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- Lower emissions from geothermal power
- The feasibility of using Carbfix—— Sorpa Project in older basalts
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_Coda (() Terminal

Project 🖄 Silverstone





- Former H2020 projects had showed us that the technology was ready for industrial application
- advances in reservoir management
- further understanding on geochemical processes
- optimisation of surface systems
- Logical decision to chose Innovation Fund since the foundation of the project was mostly researched under the H2020.
- Main challenge for the IF application was to illustrate its readiness while explaining the steps needed to make it even better

>80 ktCO₂ injected since 2014







Coda (() Terminal



- The Innovation Fund provided the necessary funding mechanism
- Coda Terminal was our idea of a continued scale up of the Carbfix technology
- Isolated puzzles related to the Carbfix Technology had been studied and demonstrated in former H2020 projects
- Economic/feasibility of the entire CCS cycle
- Improved re-injection design
- The feasibility of using Carbfix in older basalts
- Main challenge for the IF application was to fulfil all the different requirements needed for the application.







Lessons learnt

- Start early
- Get a good overview of the internal and external workload
- Scope the additional documents needed as soon as possible
- Seek advice from your national contact points early
- Submit a draft application a few days before the deadline
- Be confident in your project!
- If you don't succeed the first time around, remember:
 - You have now identified the strengths and weaknesses of your project.
 - You can use the application documents or parts of it as a baseline for future applications
 - This is a huge team building exercise



Icelandic Silverstone Carbon Capture Project Receives €3.9 Million

by Violet George · January 11, 2022 · ③ 2 minute read

12.07.2022

Carbfix's Coda Terminal awarded large EU grant

Carbfix has been selected for grant award from the European Innovation Fund to build the Coda Terminal, a la transport and storage hub at Straumsvík, Icelanc



04.11.2021

EUR 3.9 million EU Grant to Carbfix

Carbfix gets the biggest EU grant any the first of its kind in the world. Operations are se Icelandic company has been awarded





Turning CO₂ into stone

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