



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

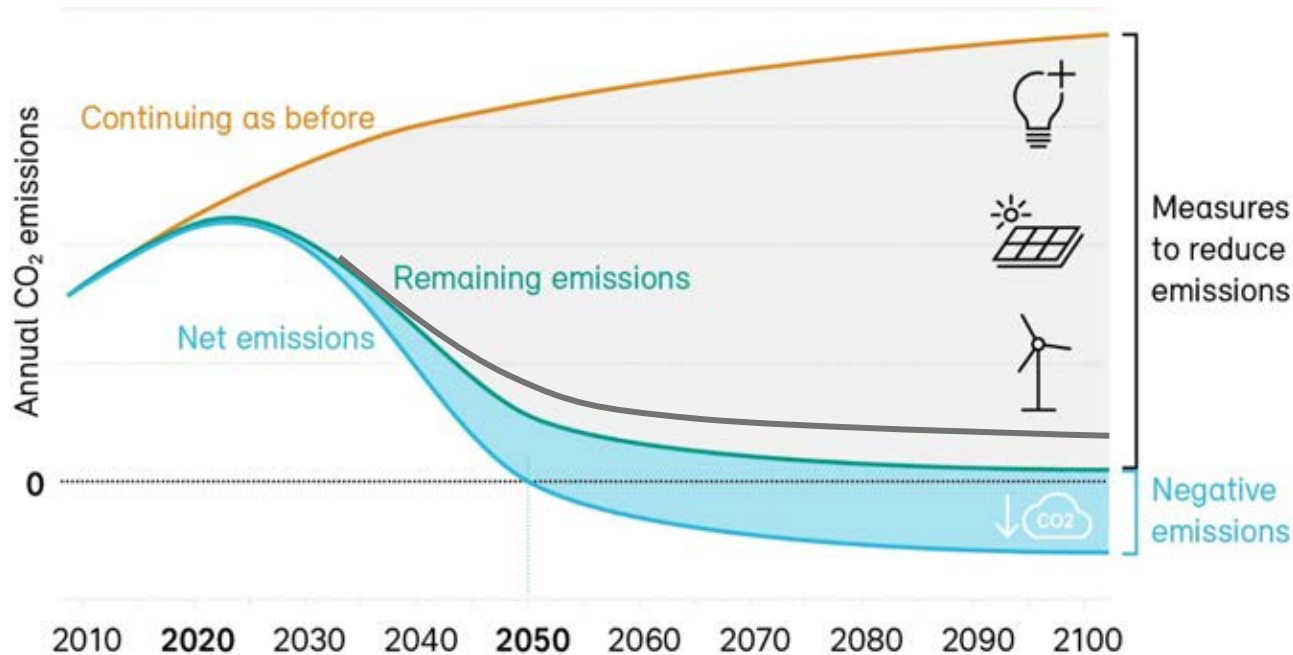
Federal Department of the Environment, Transport,
Energy and Communications DETEC
Federal Office for the Environment FOEN
Climate Management

Carbon capture, removal and storage: Essential for the Swiss net-zero climate target

Martin Jiskra, Federal Office for the Environment (FOEN)
CCUS Stakeholder Dialogue, EPFL, Sion, 15th June 2026



Swiss climate target: Net zero by 2050



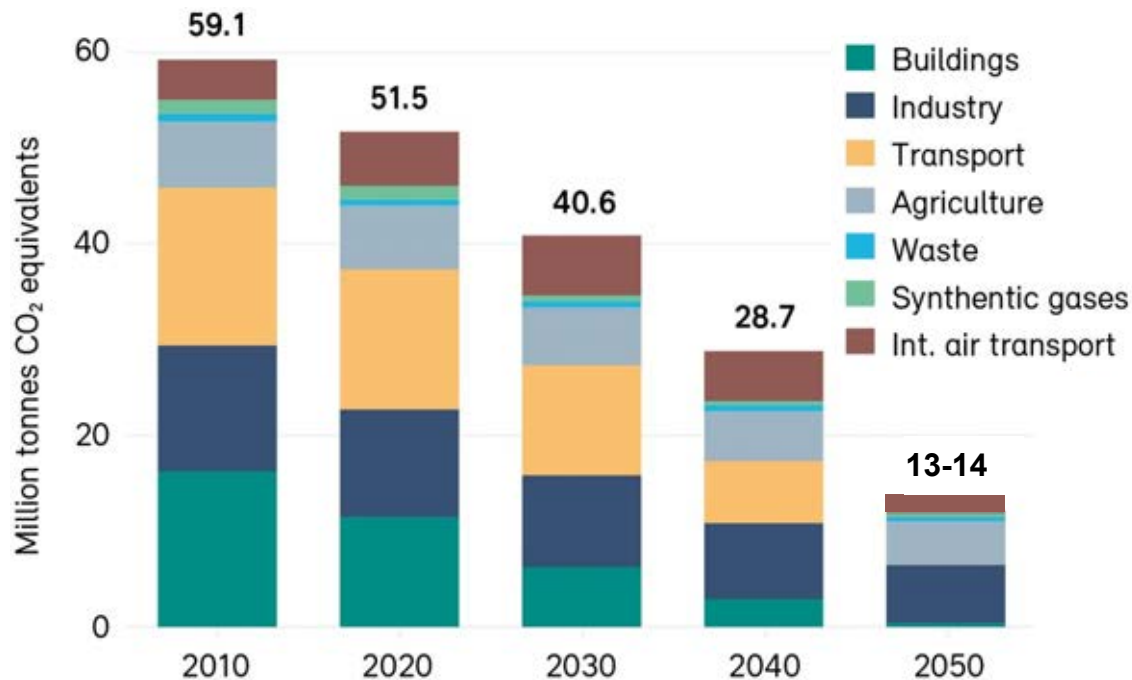
1.
Reduce
avoidable
emissions

2.
balance hard-to-
abate emissions
with CCS & CDR

Net zero is an interim goal

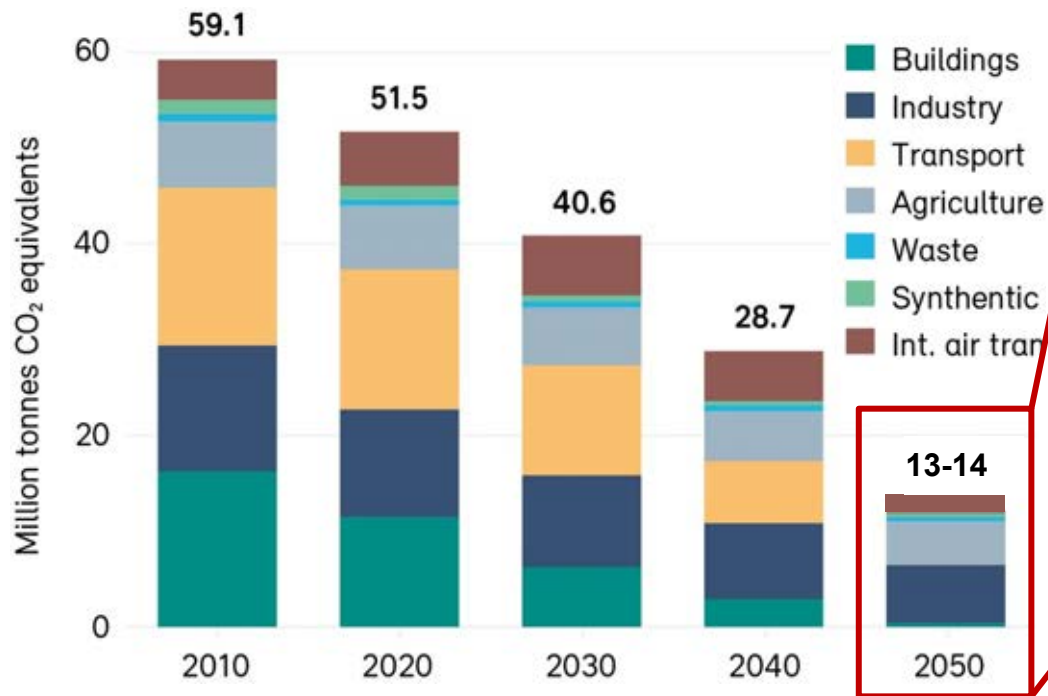


Long-term climate strategy





Long-term climate strategy



hard-to-abate emissions 2050



~5 Mt CO₂eq agriculture



~4 Mt CO₂eq industry, mainly cement production



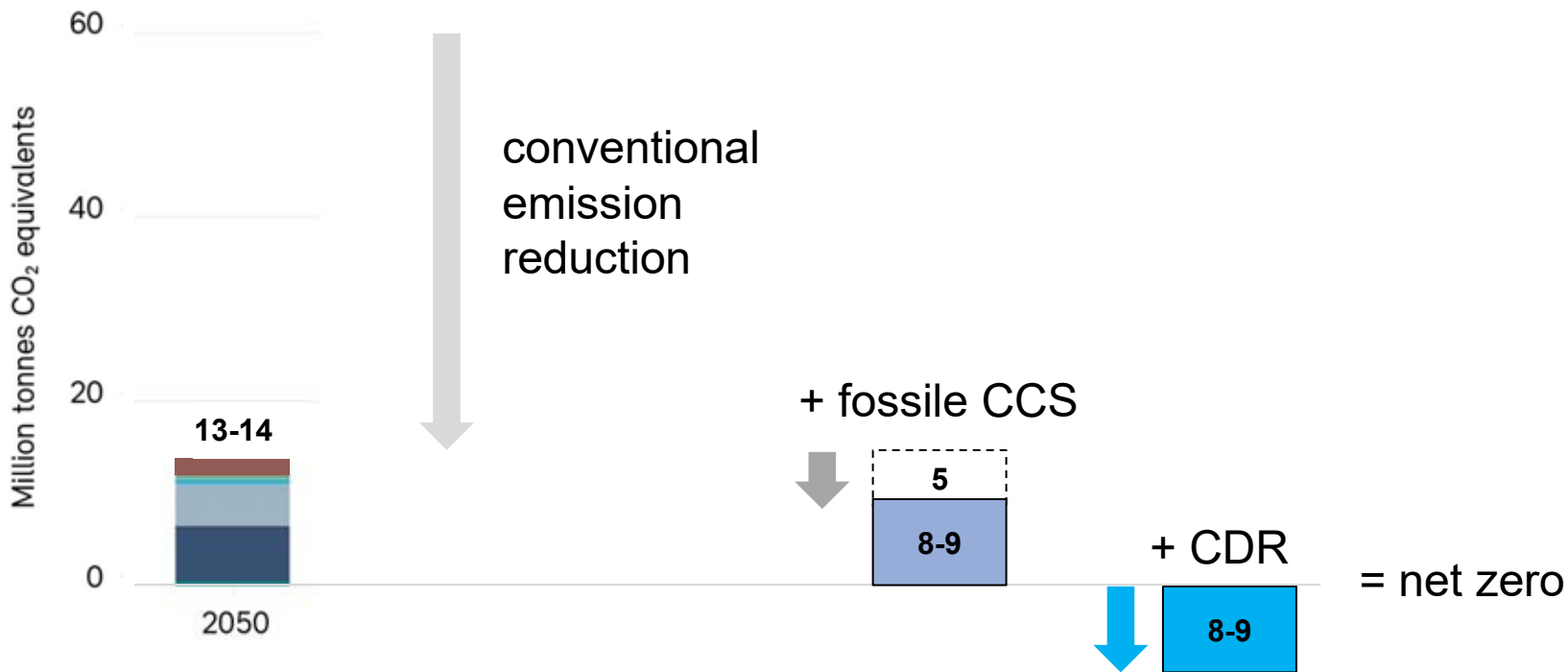
~3 Mt CO₂eq emissions from waste incineration



~1-2 Mt CO₂eq emissions from Int. air transport



Long-term climate strategy: Net Zero





Swiss CCS-System: point-sources



Water-to-energy plants (29)

Total 4.5 Mt CO₂ p.a.,

Cement plants (6)

Total 2.6 Mt CO₂ p.a.,

Chemical & Pharma industry (9)

Total 1.1 Mt CO₂ p.a.

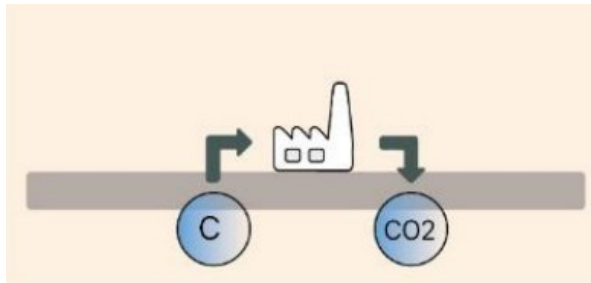
(Data from 2018)

Quelle: [Interim Report](#), DemoUpCARMA



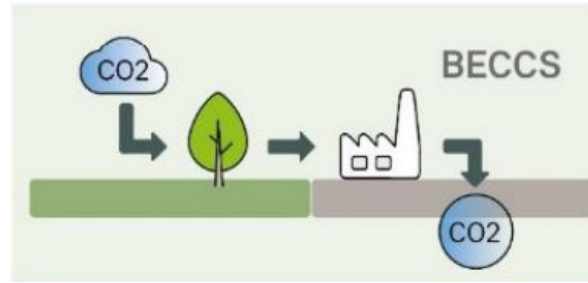
Swiss CCS-System

Fossile-CCS: Carbon capture and storage of fossile und process-based emissions



cement plant

CDR: Bioenergy-CCS
(biogenic emissions)

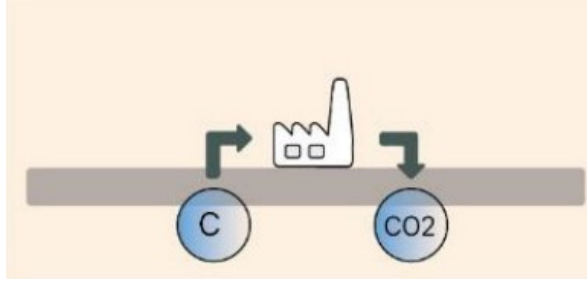


wood-fired energy plant



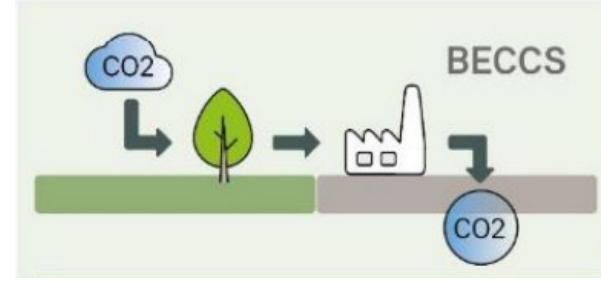
Swiss CCS-System

fossile CCS: Carbon capture and storage of fossile und process-based emissions



50:50

CDR: Bioenergy-CCS
(biogenic emissions)



cement plant



waste-to-energy plant



wood-fired energy plant

Net-zero target 2050: 7 Mio. tons CO₂



Swiss CCS-System: CO₂ transport options

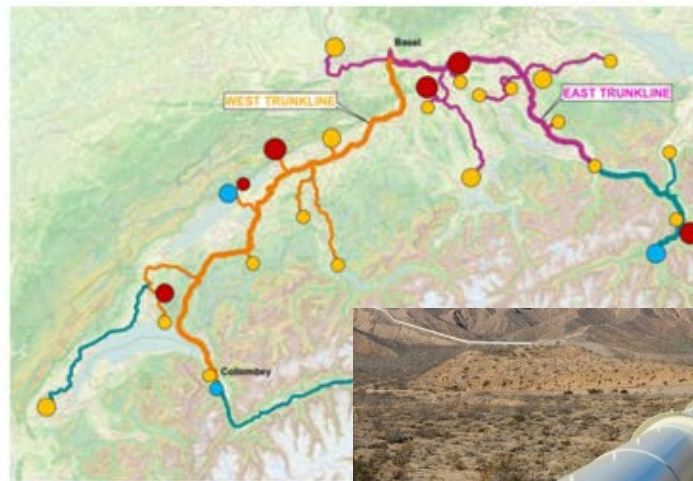
... each year 7 million tons of CO₂ will have to be **transported**...



truck



train



pipeline





Swiss CCS-System: CO₂ storage options

... each year 7 million tons of CO₂ will have to be **durably stored**...

in Switzerland

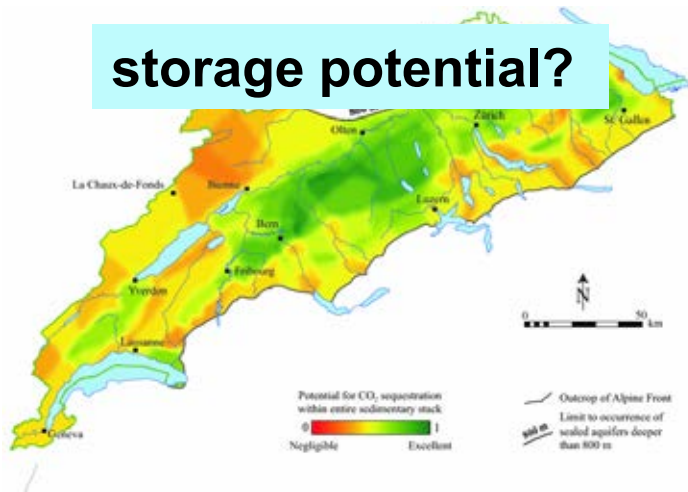
recycled concrete

0.1 Mt CO₂ p.a.



geological storage

storage potential?



abroad

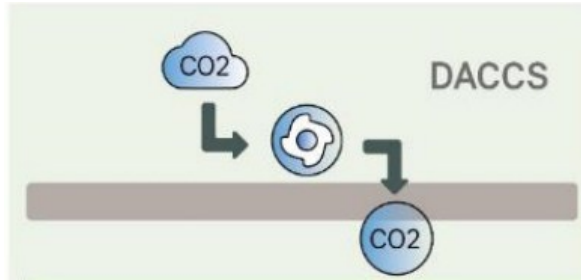
geological storage



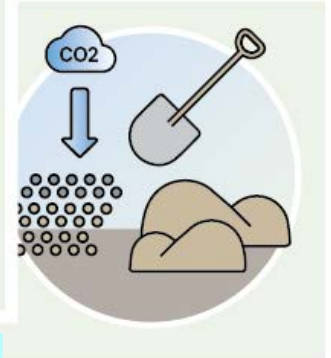
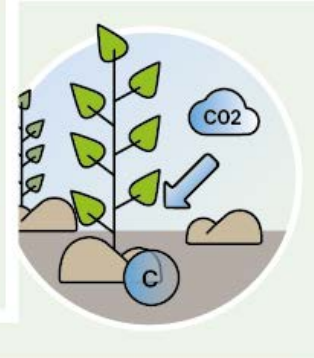
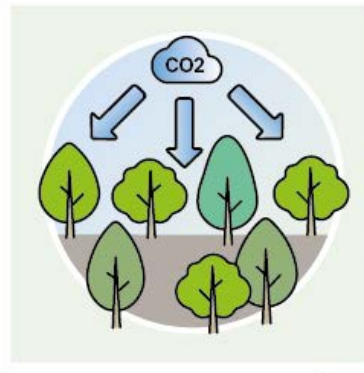


Carbon dioxide removal (CDR)

Direct air capture (DAC) abroad



further approaches

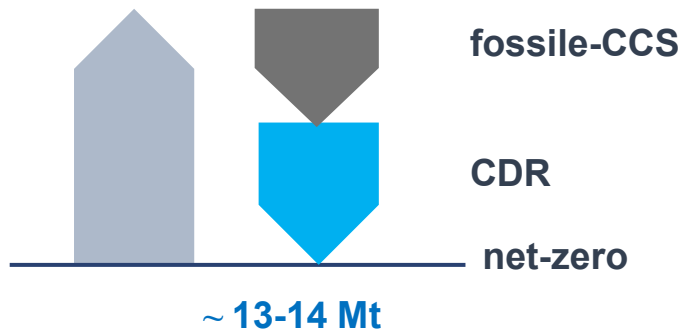


Net-zero target 2050: 6-7 Mio. tons CO₂

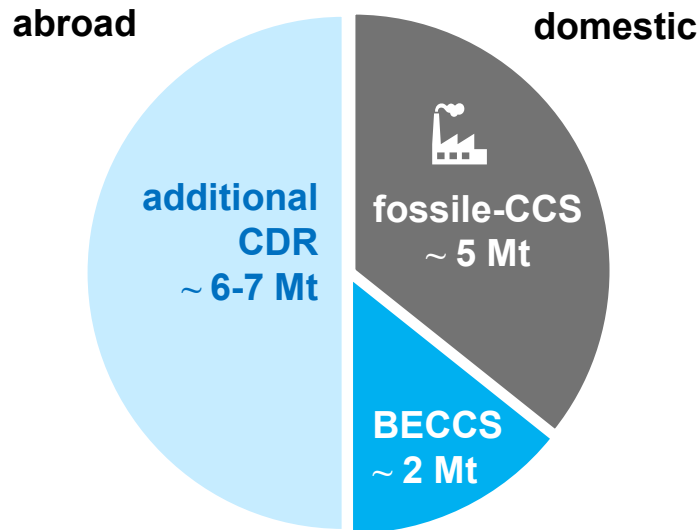


Measures for hard-to-abate emissions

Hard-to-abate emissions



Potential by the year 2050





Adressing challenges in two phases

- ▶ Need to establish CCS Infrastructure in Switzerland
- ▶ Need for international cooperation
- ▶ Need for Companies and administration to buildup CDR

[Link: Roadmap CCS and NET](#)



Image: Andreas Gerth/FOEN



Current climate policy for CCS and CDR

Net zero target in Climate and Innovation Act



- ▶ **Switzerland:** by 2050
- ▶ **Companies:** by 2050 the latest
- ▶ **Federal Administration:** by 2040

CCS and CDR policies

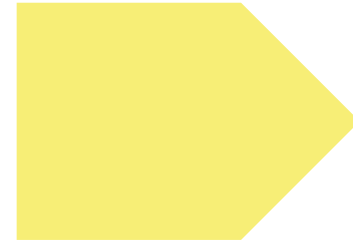


- ▶ Accounting of CCS in ETS from 2025
- ▶ CCS pilot plant under agreement with waste incineration plants
- ▶ Government support for pioneering companies applying novel technologies including CDR in roadmaps to net zero



Pioneering Phase to 2030

Innovation: P&D project DemoUpCARMA 2022



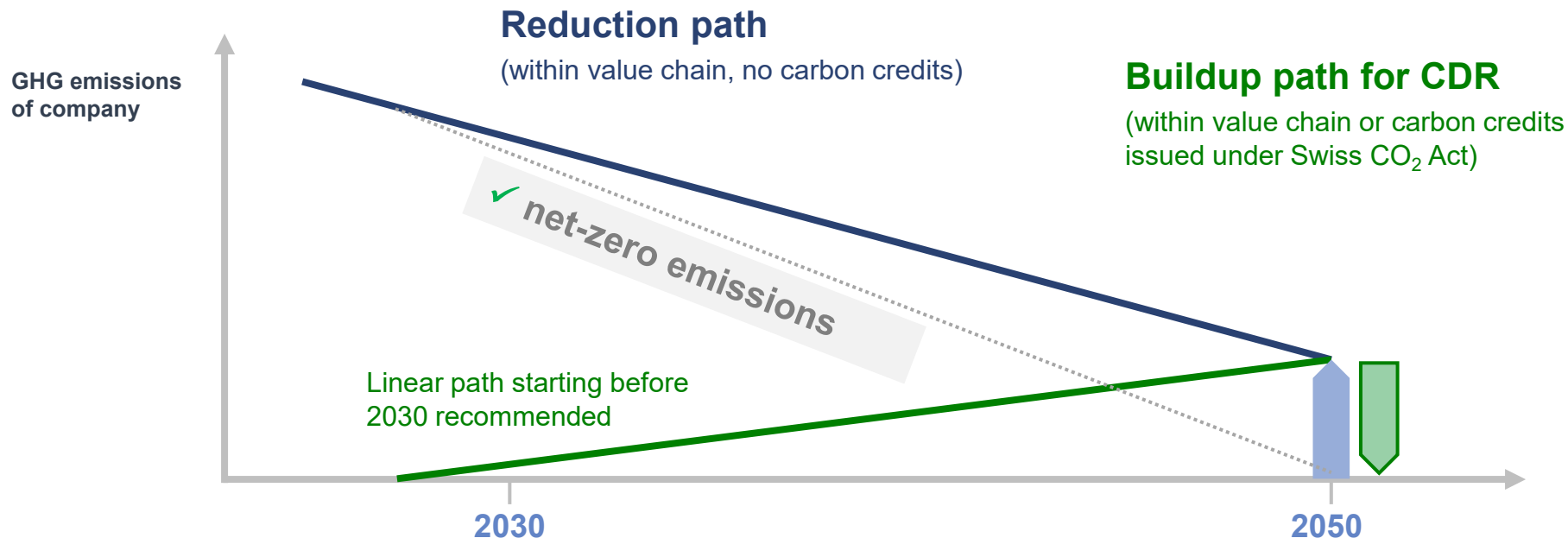
International Cooperation: agreement with Norway 2025





Scaling Companies CDR buildup (illustrative)

Net-zero company roadmaps as tools to decarbonise and integrate CDR



[Link: Netto-Null-Fahrpläne](#)



Scaling phase after 2030

Legislative proposals for a new CCS-Framework law and CO₂-law after 2030

- ▶ harmonized national pipeline and storage legislation
- ▶ improved investment security

public consultation in H2 2026

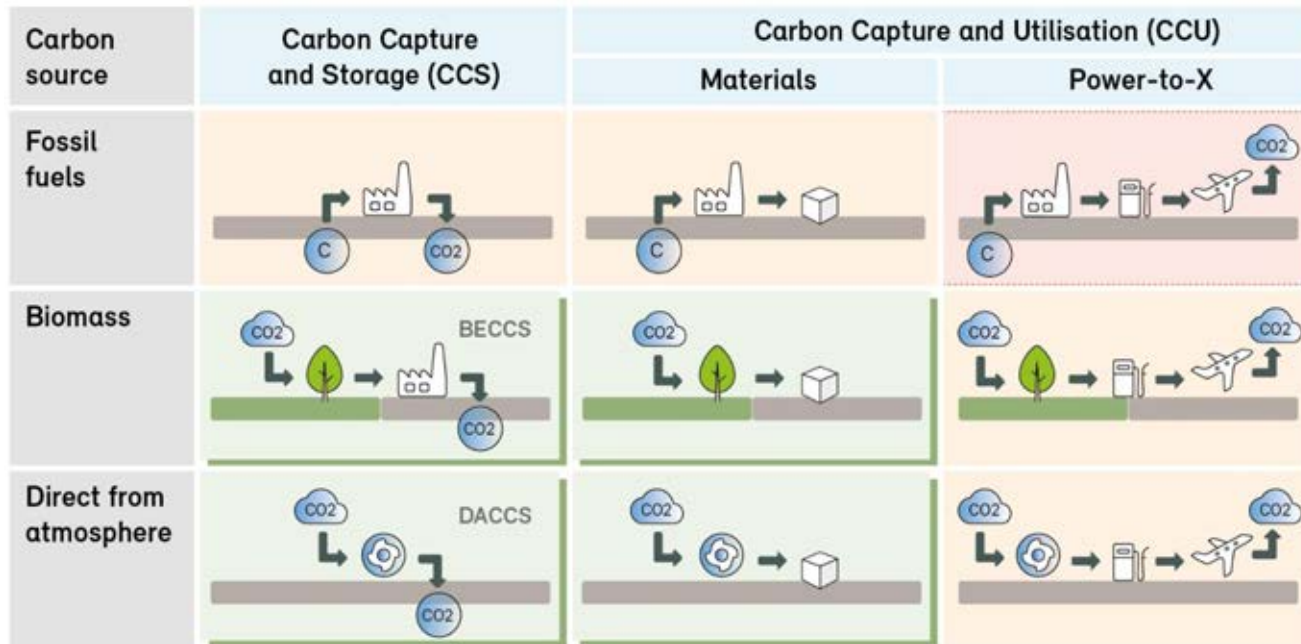




Thank You



Backup Slide



It is assumed that the energy used was generated in a climate-friendly way.

- Negative emissions
- Climate neutral
- CO₂ emissions

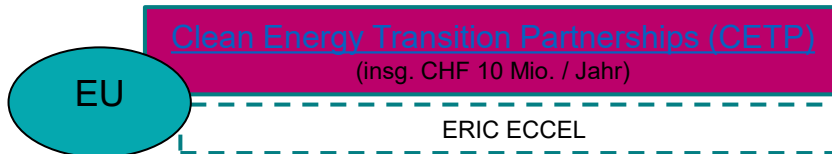
Definition Carbon dioxide capture and utilisation (CCU) A process in which carbon dioxide (CO₂) is captured and the carbon then used in a product. The climate effect of CCU depends on the product lifetime, the product it displaces, and the CO₂ source (fossil, biomass or atmosphere). [IPCC \(AR6 WG III definition\)](#)



CDR Innovation Landscape

Grundlagen
-forschung

Bottom-Up Instrument ([SNF](#)) (ca. 10 Mio. / Jahr extrapol.)



EP27

Angewandte
Forschung &
Entwicklung

[Innosuisse](#) / [Ressortforschung](#) (ca. 5 Mio. / Jahr extrapol.)

[Innosuisse Netto-Null Call](#) (CHF 50 Mio.)

[SWEET NET/CCS](#) (ca. CHF 20 Mio.)

SWEETER

Pilot &
Demo-
Projekte

[Pilot & Demonstrationsprogramm](#) / [Umwelttechnologieförderung](#) (insg. 35 Mio./ Jahr)

[Technologieförderung Art. 6 KIG](#)
(insg. CHF 1.2 Mia.)

[Stiftung Klimarappen](#) (CHF 60 Mio.)

Markt

[Technologiefonds](#) (insg. CHF 25 Mio. / Jahr)

2020

2025

2030

2035