

THE CLIMATE CLEANUP CDR CONFERENCE

28
05

Funding the Future of Carbon Removal



Duurzaam-
ondernemen.nl



greencarbon.nl



NEGATIVE
EMISSIONS
PLATFORM



Scature

provincie
Gelderland



Provincie
Noord-Holland



provincie
Zuid-Holland



PROVINCIE UTRECHT

Welcome

Josine Bakkes

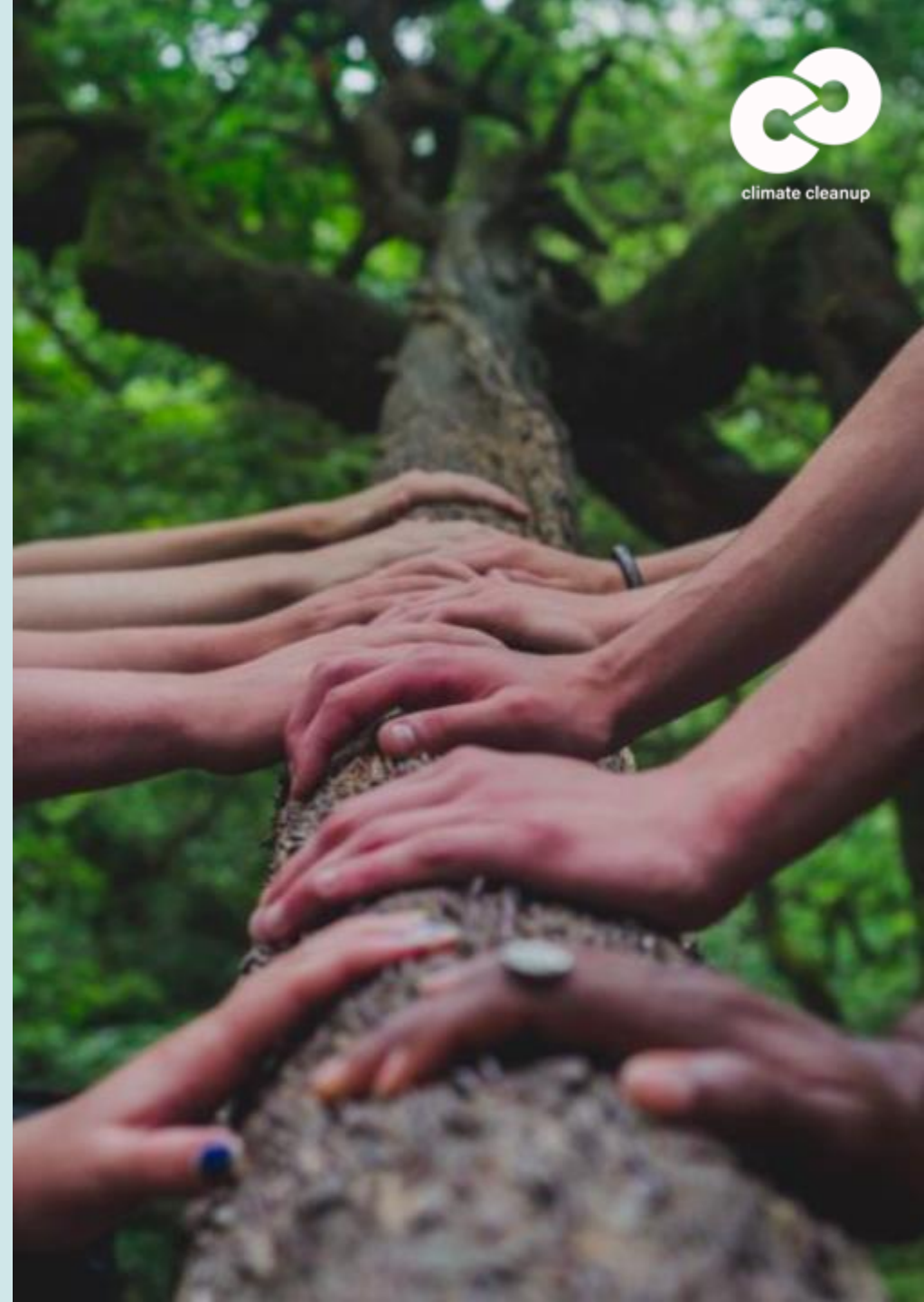
CDR Conference 2025



Opening

Sven Jense
Climate Cleanup

CDR Conference 2025



Green CDR Update May 2025



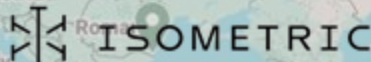
95 projects

13 countries

60 under review

€ 497.868 for removers

181.671 ton CO₂ certified



19.804 tCO₂



23.454 tCO₂



~431.020 tCO₂



1.118.765 tCO₂

1.774.714 tCO₂



registry.oncra.org

CARBON REMOVAL WITH NATURE

-Green CDR Cases



*Seaweed storing carbon;
from problem to solution*

Pablo Besquin
Golden Tides

CDR Conference 2025



Tree-based Foundational Carbon Storage

Kees de Gruiter
Underground Forest

CDR Conference 2025



*How my soil stored over
30x as much as
deemed “realistic”*

Erwin Westers
Horaholm family farm

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A man wearing a blue short-sleeved button-down shirt and a dark baseball cap with a logo is standing in a vast, flat, green field under a clear blue sky. He is gesturing with his hands, with his right hand raised and palm facing forward, and his left hand held lower, palm facing down. The background is a flat expanse of green grass stretching to the horizon.

By 2030, mid-sized and
small businesses

Enhanced Rock Weathering, connected business case

Eric Matzner
MetalPlant

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*Panel discussion:
from pioneers to
regenerative economy*

Bart Van Beuzekom
Scature

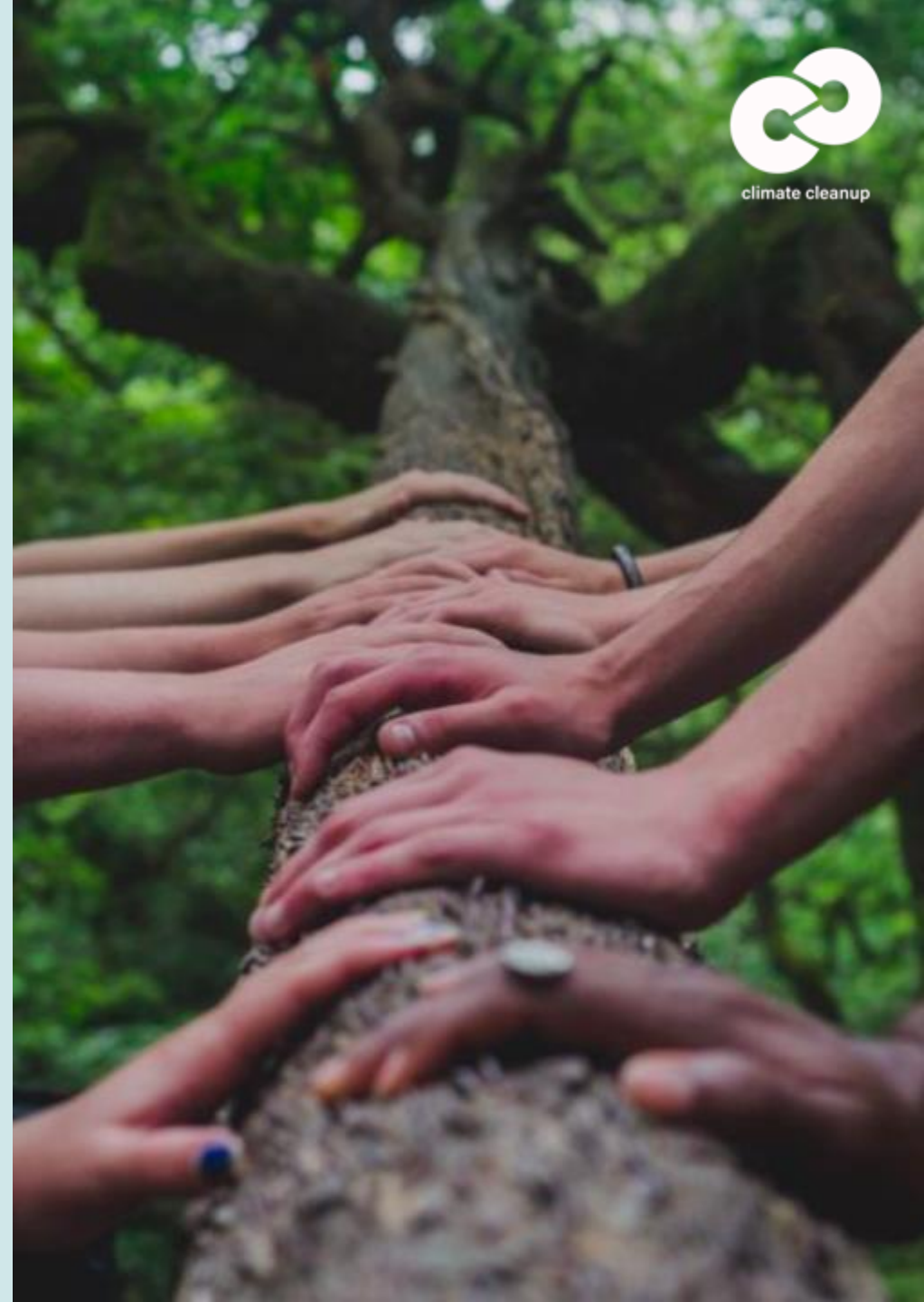
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*Buildings storing carbon:
leveraging the business case*

Pablo van der Lugt
Built by Nature

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BUILDINGS STORING CARBON

LEVERAGING THE BUSINESS CASE

Dr. ir. Pablo van der Lugt

Delft University of Technology | Green Matters Consultancy

Author Tomorrow's Timber & Booming Bamboo

Board member Built by Nature



39% OF GREENHOUSE GAS EMISSIONS

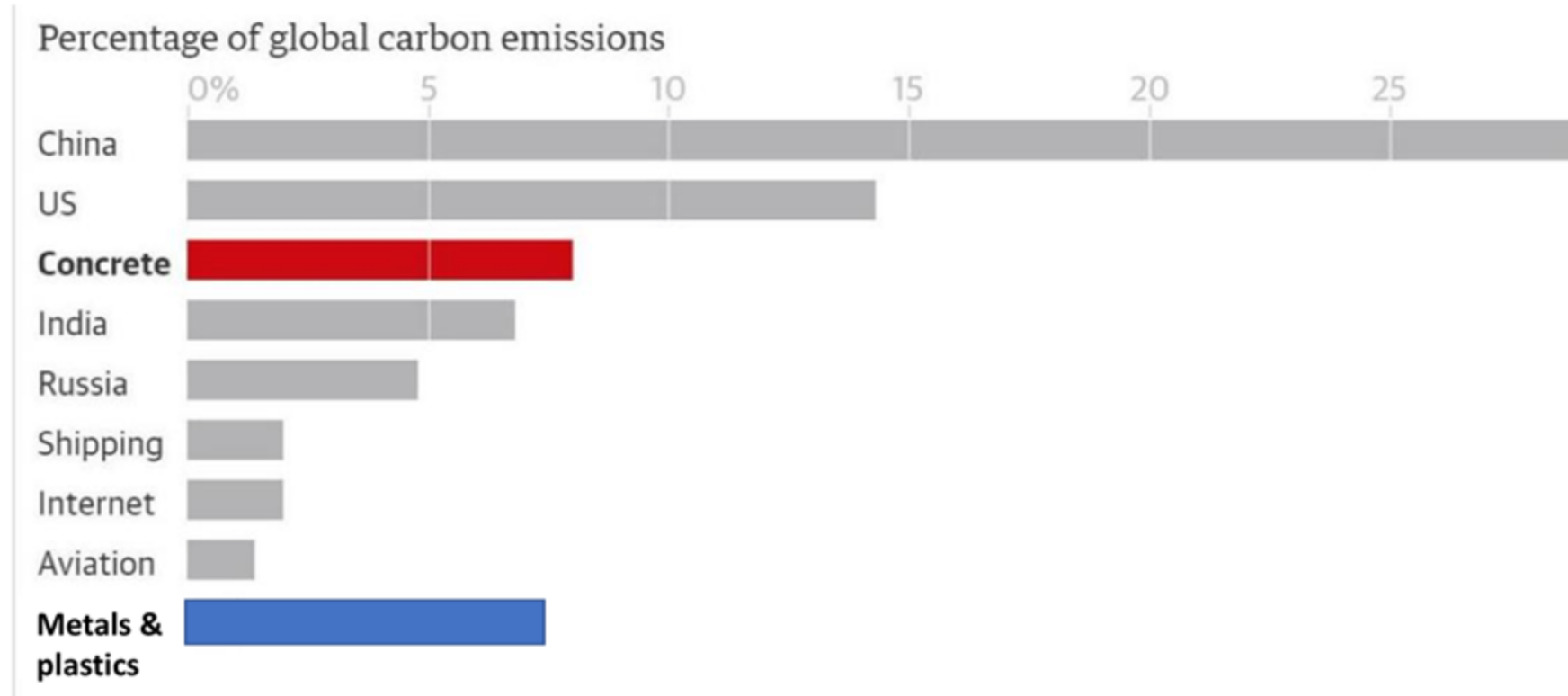
are caused by the built environment

A wide-angle photograph of a massive open-pit mine. The mine's walls are composed of several distinct horizontal layers of reddish-brown rock, showing clear signs of terracing. The bottom of the mine is a flat, dusty area where several pieces of heavy machinery are visible, including a yellow truck, a red excavator, and two drilling rigs. The sky above is a clear, bright blue.

39% OF GREENHOUSE GAS EMISSIONS

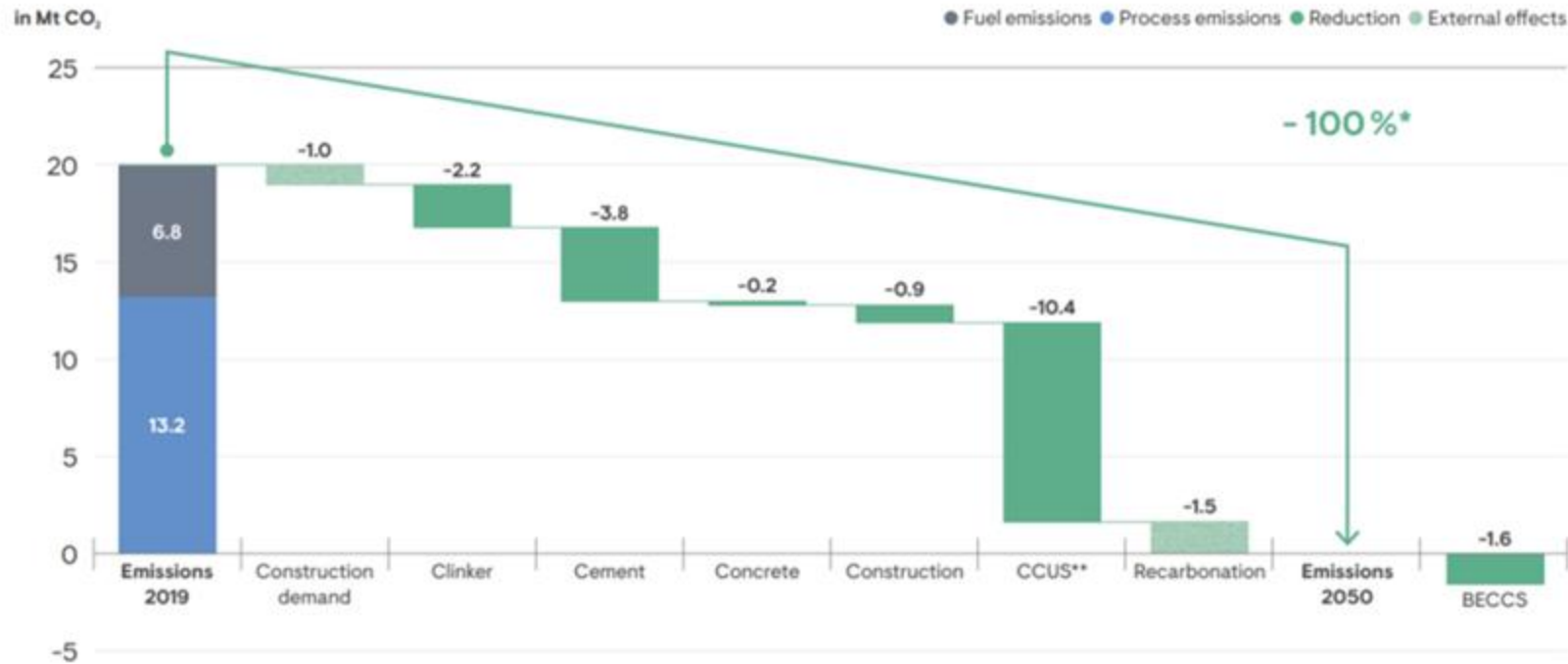
are caused by the built environment

IF CONCRETE & STEEL WERE COUNTRIES...



CARBON CAPTURE & STORAGE (CCS)

CCUS however is the indispensable to get to net zero by 2050 (and in EU by 2040)



* Thereof about 88 % reduction through measures along the value chain. Remaining emissions are reduced by a decreasing construction demand as well as the contribution of recarbonation.

** CCUS: Carbon Capture technologies aiming at reducing CO₂ emissions in the atmosphere through CO₂ storage (CCS) and appropriate procedures for CO₂ utilisation (CCU).

Source: VDZ



- Verbouwing Heidelberg Brevik
- Investering van zo'n 700 miljoen (75% Noorse subsidie)
- Levering Net Zero cement vanaf Q1 2025
- Met amines wordt CO2 vloeibaar gemaakt en afgevangen



- 6 tanks met vloeibare CO2
 - In 4 dagen vol
- CO2 middels tankers naar een lege gasbel in de Noordzee

CARBON CAPTURE & STORAGE (CCS)

CCUS projects require funding + customers valuing carbon free cement

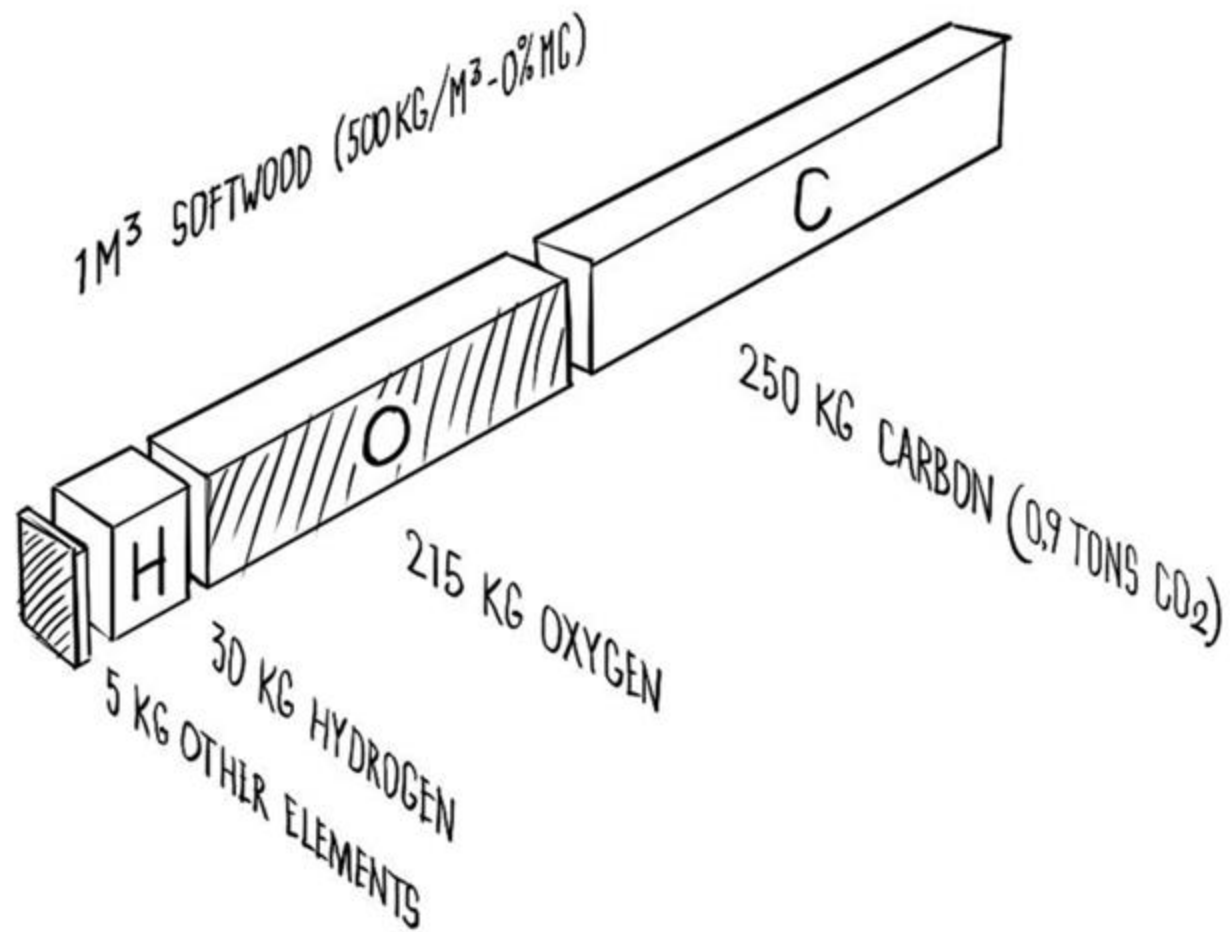


A photograph of a forest with sunlight rays (crepuscular rays) streaming through the trees, creating a dramatic and ethereal atmosphere. The rays are golden and illuminate the misty air between the dark evergreen trees. The foreground shows a grassy slope.

PHOTOSYNTHESIS

$\text{CO}_2 + \text{H}_2\text{O} + \text{solar energy} \rightarrow \text{glucose} + \text{O}_2$

CARBON STORE





MEDIEVAL HOUSES

Location
Strassbourg, France



STAVE CHURCH

12TH CENTURY

Location
Norway

BUILDING AS CARBON STORE

An architectural rendering of a modern building complex. The central focus is a tall, multi-story building with a unique, stepped facade. Each level of the building features a large, cantilevered balcony or terrace that is densely planted with green vegetation, creating a 'vertical forest' effect. The building's structure is composed of light-colored concrete or stone, with the greenery providing a natural contrast. To the right of this central building is a smaller, more modern structure with a blue and white checkered or pixelated facade. Further to the right is a long, multi-story building with a traditional brick facade and many windows. In the foreground, there is a paved pedestrian walkway on the left where several people are walking. A person is also riding a bicycle. To the right of the walkway is a green lawn area where a group of people, including children, are playing. A few trees are scattered throughout the courtyard area. The sky is bright blue with some light, wispy clouds. The overall scene depicts a vibrant, sustainable urban environment.

SAWAI Rotterdam, the Netherlands | Mei architecten + NICE developers



SAWAI Rotterdam, the Netherlands | Mei architects and planners + NICE developers

Credit: Mei architects & planners



CLT PRODUCTION

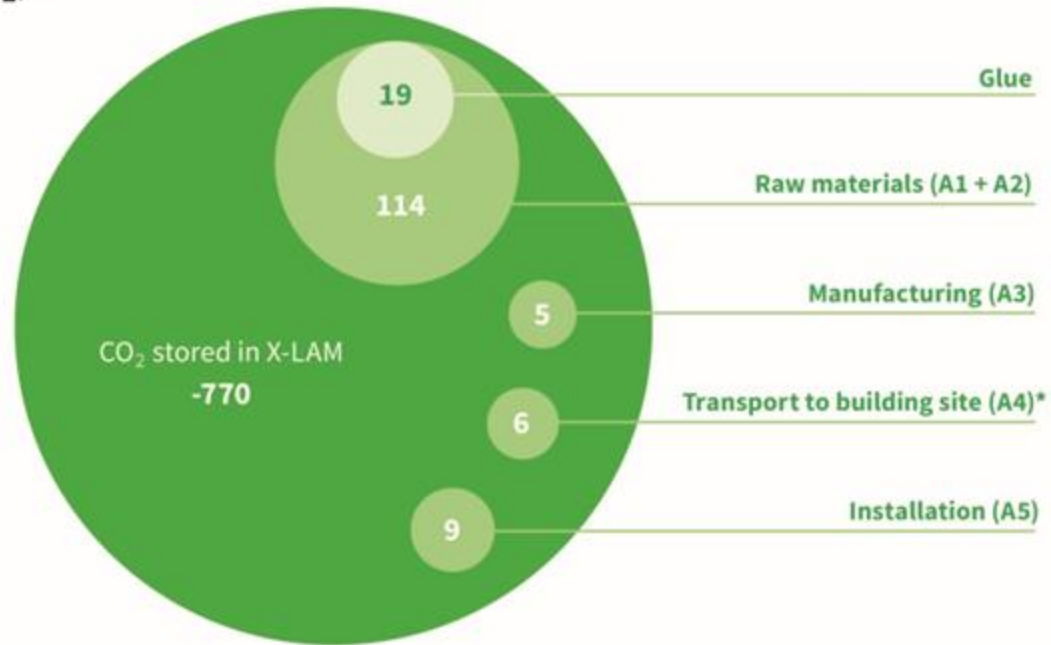


TOMORROW'S TIMBER

Credit: DERIX group

MASS TIMBER PRODUCTION

kg CO₂/m³



*Assumption: 150 km
Based on EPD of DERIX-Group

Construction Stored Carbon

2021

A financial metric for carbon storage in the built environment

ASN Bank & Climate Cleanup

asn bank

climate cleanup

Photo: DERIX group

ASSEMBLY





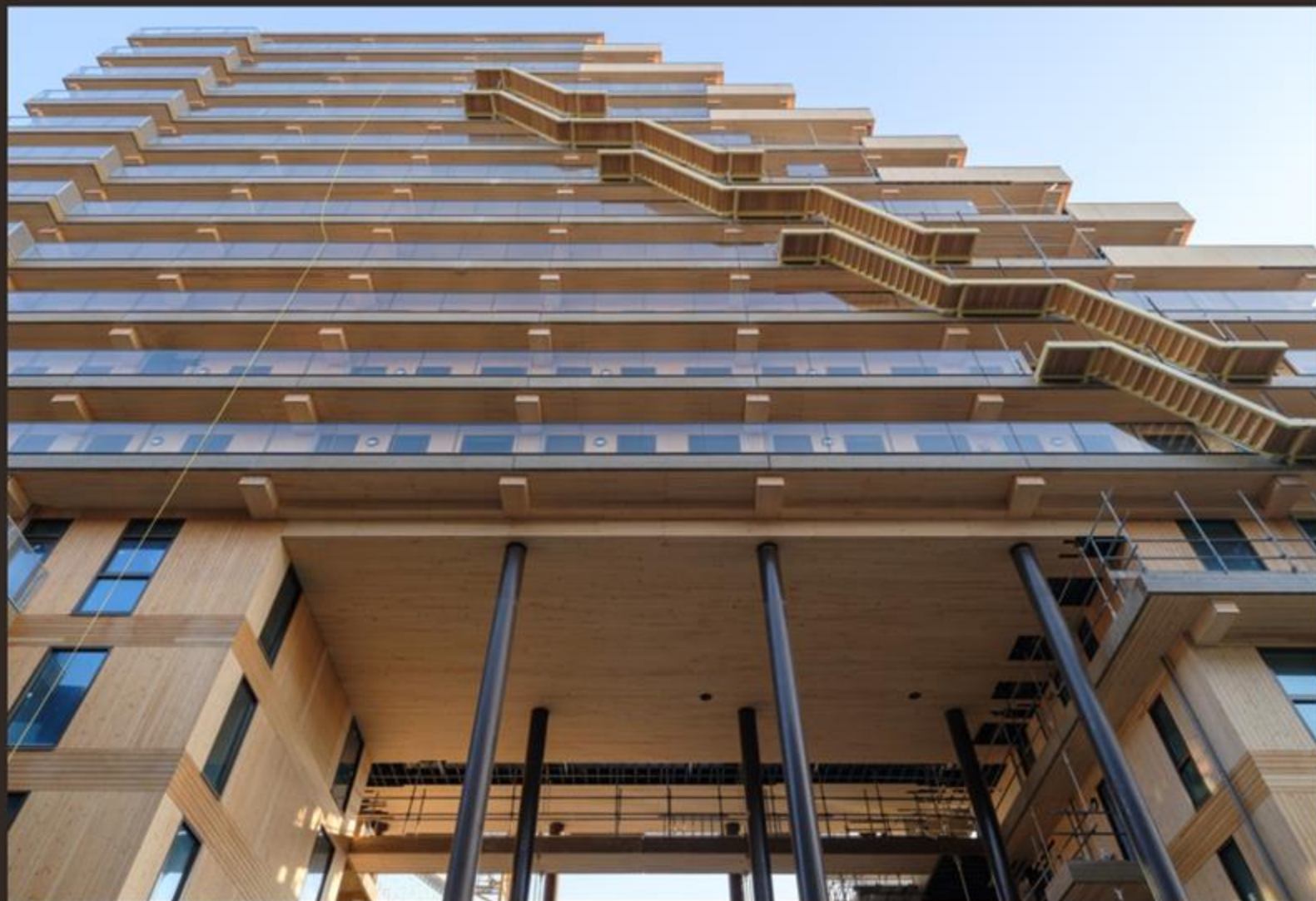
TIME LAPSE (25 WEEKS)





SAWA | Rotterdam, the Netherlands | Mei architects and planners | NICE developers | ERA contour

Photo: Ossip van Duivenbode



SAWA

Location
Rotterdam

Architect
Mei architecten

Mass timber volume
3300 m³

CO₂ stored for lifetime
2550 tons

CARBON REMOVAL CERTIFICATE

PROJECT NAME

SAWA Rotterdam

CARBON REMOVAL UNITS

2550 tonnes CO₂

REMOVER

SAWA VVE



PROJECT CODE

SAWA-C-001

ONCRA VERIFIED CARBON ACCOUNTING
www.oncra.org



Putting a Price on Carbon: Redevco's Path to Sustainable Value Creation

May 21, 2025



By Martijn Horsman, Sustainable Development Manager at Redevco

Implementing a carbon price

We have established a carbon price of €120/tCO₂, in line with IEA Net Zero Emissions 1.5°C Pathway 2050, as a benchmark. Based on the mandates agreed with our investor clients, we either charge this price as an internal carbon fee to the development project, or we apply it as a 'shadow price', to demonstrate the potential future risk of a carbon tax to the investment returns of the project. If we charge the internal carbon fee to the development project, we then invest these funds in nature-based solutions, to neutralise the project's remaining emissions.

This approach encourages our teams and partners to think differently, evaluating materials and design choices through a sustainability lens, and future-proofing assets in line with evolving regulations such as the EU Taxonomy and International Sustainability Standards Board (ISSB). This is especially relevant to our €1 billion pan-European investment strategy. The programme aims to transform and future-proof retail properties across major Western European cities by 2030. Our redevelopment of Elisen Palais in Hamburg demonstrates this decision making in action – we have repurposed materials from the original structure, including steel beams, to reduce the project's embodied-carbon footprint.

Every Redevco project undergoes a Whole Life Carbon Assessment (WLCA), enabling us to track emissions, benchmark performance, and embed impact into each development. As a proud partner of Urban Land Institute's [C Change programme](#), we align with its principles of life-cycle carbon pricing, consistent application, and data-driven decision-making across the real estate sector.

Carbon pricing is more than an accounting exercise. It's about pioneering positive change – putting climate accountability at the heart of real estate regeneration.

Break

10.30 - 11.00

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POLICY IN PRACTICE

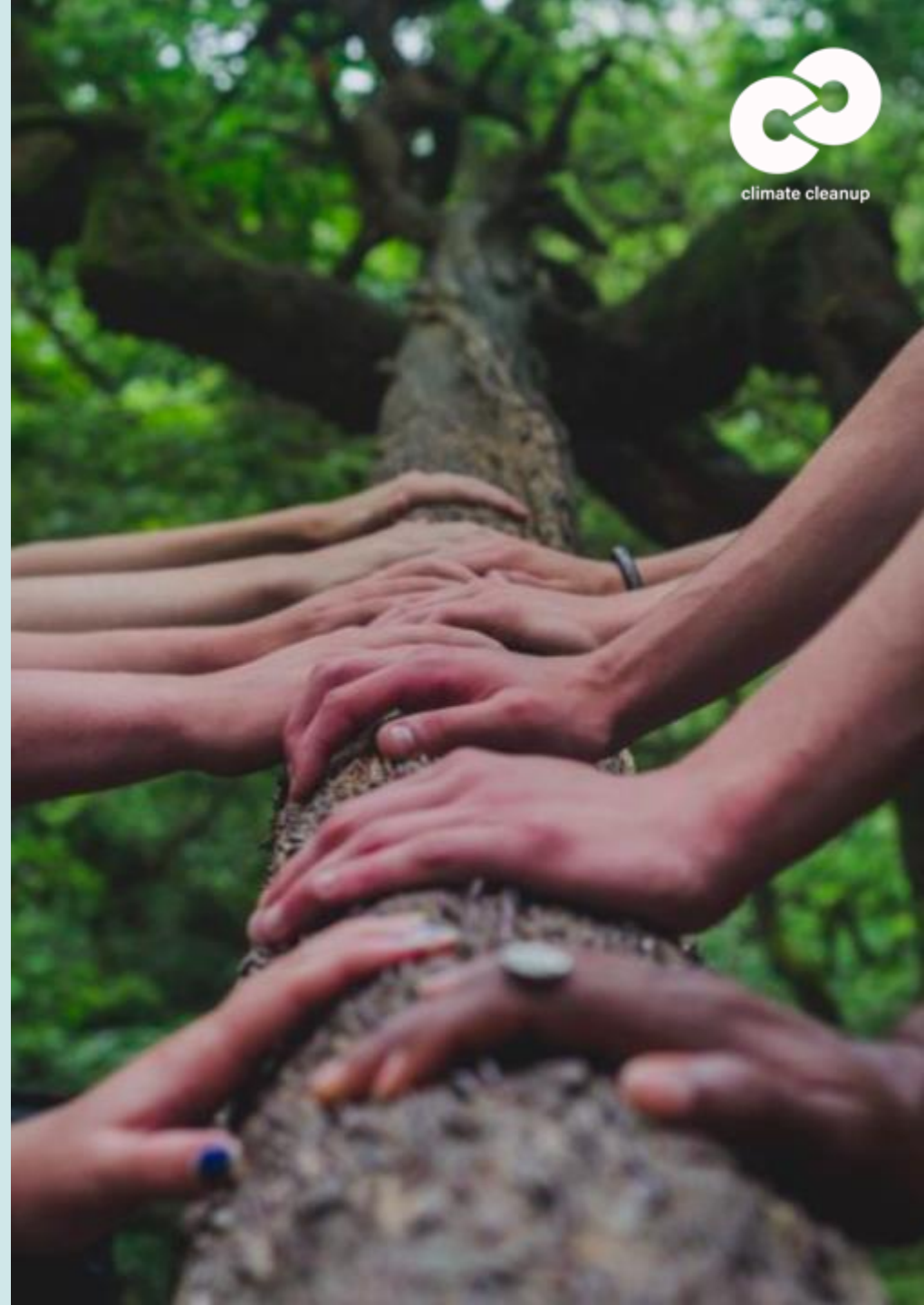
-How policy can enable the new carbon economy



Moderated discussion:
*EU policy stimulating the
CDR movement*

Chris Sherwood
Negative Emission Platform

CDR Conference 2025



Moderated discussion:
*EU policy stimulating the
CDR movement*

Wietse Hermanns
ABC Interreg

CDR Conference 2025



Agro Building Carbon

- Partners
- Discovery Partner



interregeurope.eu/abc



Moderated discussion:
*Dutch roadmap for
carbon removal*

Marcel Berk
**Ministry of Climate Policy
and Green Growth**

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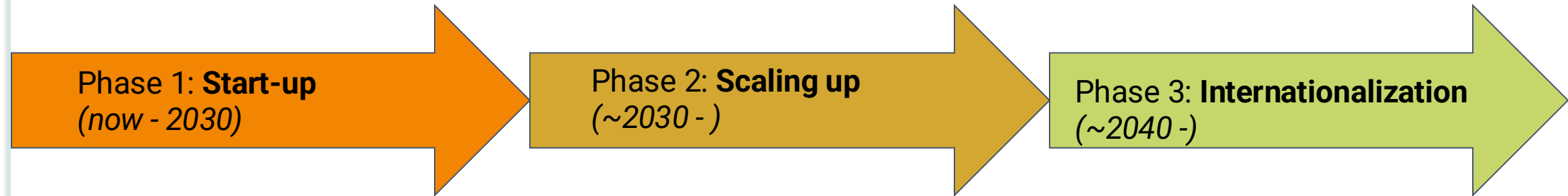


National Roadmap

Five starting points

1. **Reducing emissions remains a priority** to minimise reliance on carbon removal;
2. Long-lived greenhouse gases are offset with permanent carbon removal as much as possible; short-lived greenhouse gases (e.g. methane) can be offset with both **permanent and temporary** carbon removal.
3. Only forms of carbon removal with a **robust methodology and accounting** are used; the aim is the highest possible utilisation of CO₂ storage capacity;
4. Carbon removal is **aligned as much as possible with other policy goals** such as nature, food, energy, water supply, bio-resources, circularity, earning capacity and minimising fossil carbon use;
5. Policies are rolled out Europe-wide and globally as much as possible; the Netherlands only rolls out earlier policies where desirable, such as in **stimulating innovation by our companies as part of green growth**.

National Roadmap Carbon Removal



Global

Agreements on
accounting rules

Trade in carbon removal
increases

Large carbon removal
projects, new agreements
(including for net negative)

European Union

Policy development
(including creating
market demand)

Standards and new policy
instruments create market
demand

Achieving net zero emissions,
considering where carbon
removal incentives lie

Netherlands

Support innovation
+ early scaling

Rollout via regular
instruments, scaling storage
capacity

Achieving net negative emissions,
supporting Dutch companies in
international market

Moderated discussion:
*Why LVVN allocates 50
million to pay for CDR in
land and constructions*

Peter Oei
LVVN Ministry

CDR Conference 2025





Ministerie van Landbouw, Visserij,
Voedselzekerheid en Natuur



National plan for biobased building

Peter Oei, program manager

*Ministry of Agriculture,
Fisheries, Food security and
Nature*

Start



2020 - 2022

Living Lab horticulture (SIGN)

Floriade WorldExpo Almere







Buyer group biobased building materials

Stimulate and increase market:
Help buyers to procure biobased

Example: Interior ministries of
Economic affairs & Agriculture

Central Government Real Estate
Agency

General policy: fixed %
application biobased (interior
walls, doors, insulation etc.)





Building Balance Foundation

- › Proposal 200 million for Climate Fund (ministry of Climate and Green growth)

Three transitions

- › Sufficient biobased raw materials
- › Processing into building materials
- › Building sector adopts biobased materials





Targets biobased building

- › At least 30% new houses in 2030 have 30% (or more) biobased material
- › Existing buildings: at least 30% biobased insulation
- › At least 15% of new bitumen has 80% biobased content
- › 400.000 ton available for building sector in 2030
- › Expected land use 50.000 ha





Four ministries, interlocking goals

- Creating market conditions
- Range of interventions
- Innovation & knowledge 10%

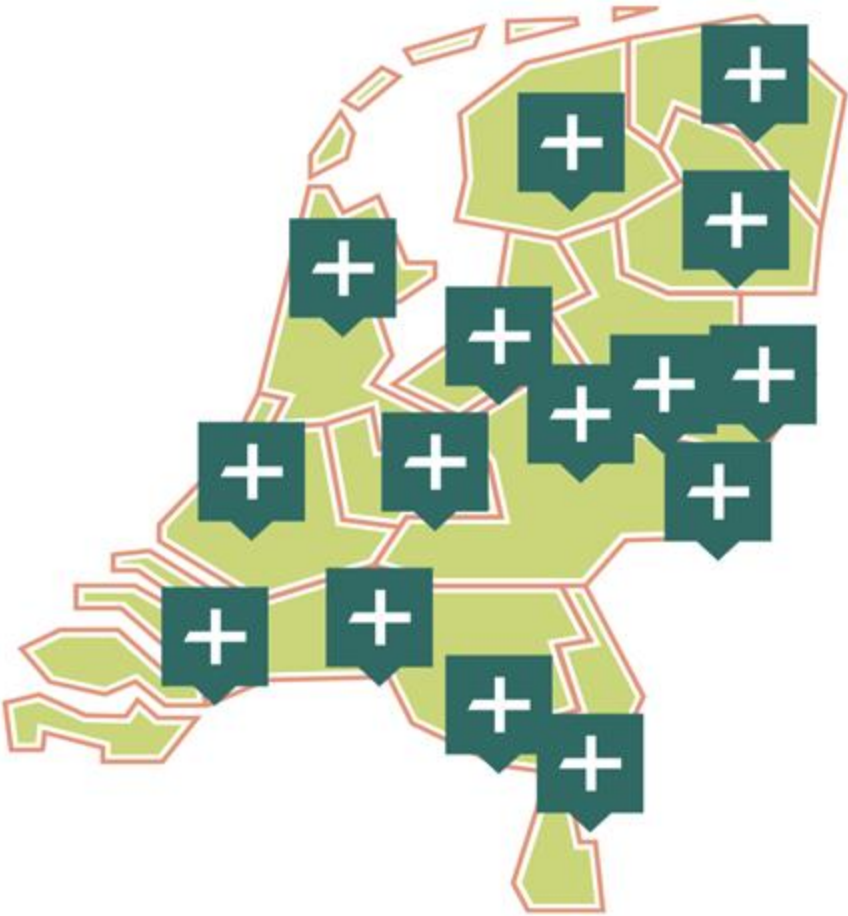
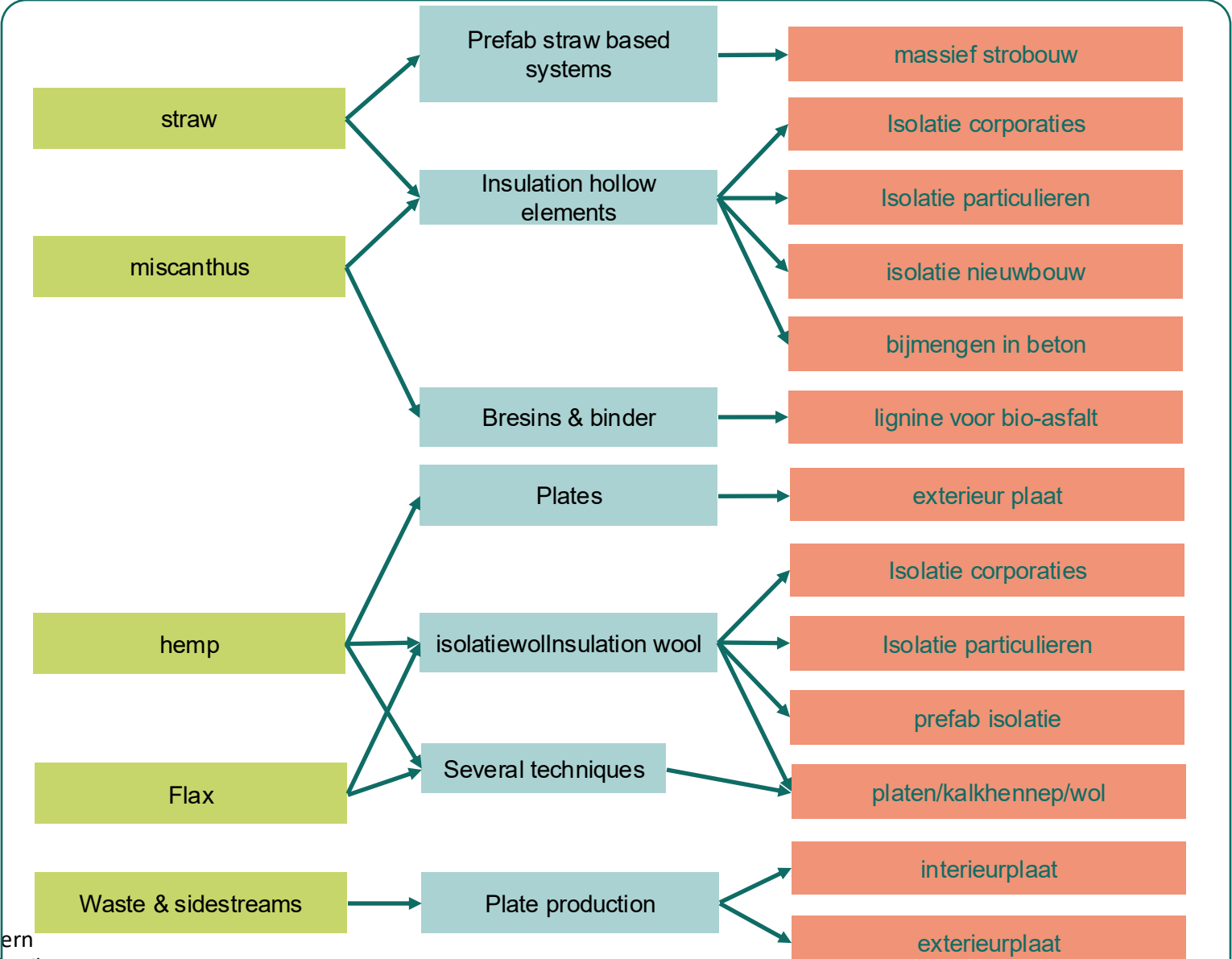


Scaling up biobased housing

Regional programs, national level interaction

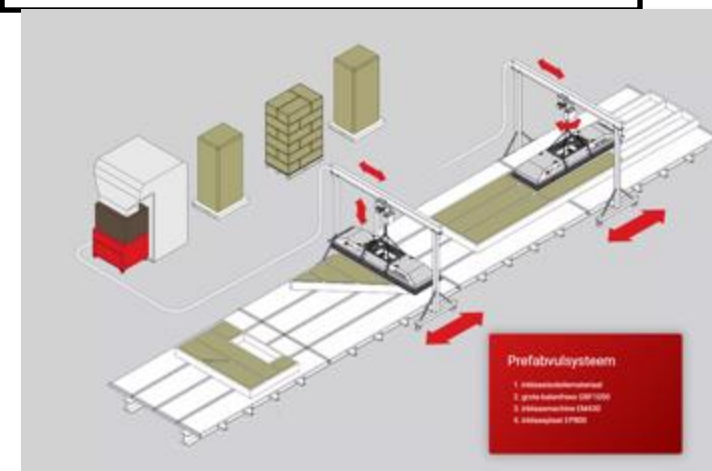


20 regional chains scaling up in each province





Straw and elephant grass: market fit





Dutch construction stored carbon credits 1

New policy instrument

- Standardized methods
carbon credit certification
- Organise chain to building
material





Dutch construction stored carbon credits 2

- Increases liquidity for farmer
- Ensures extra income for farmer
- Revolving fund
- Ensures biomass will go to building material
- 22 million in 2025 - 2030

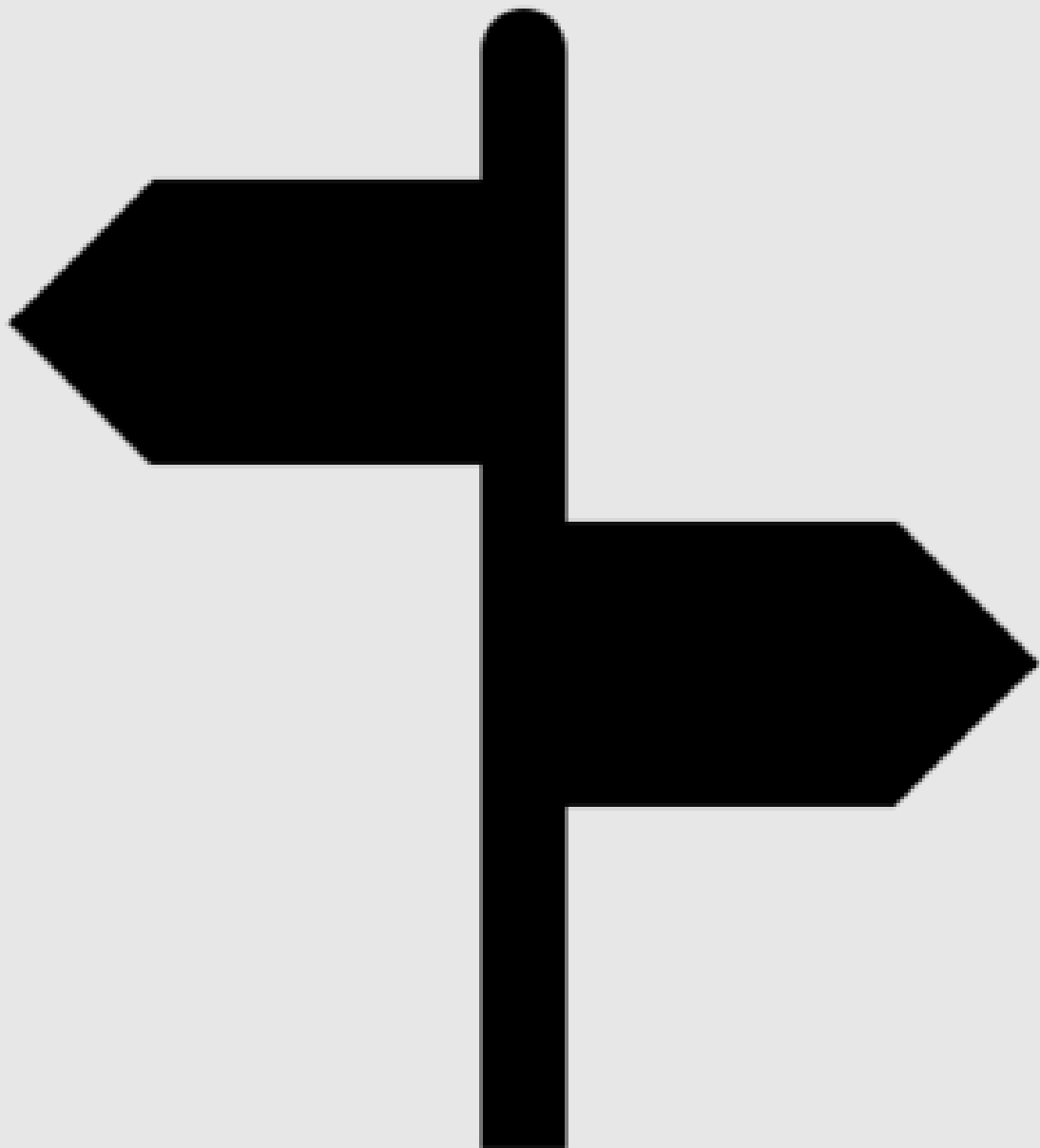




Dutch construction stored carbon credits 3

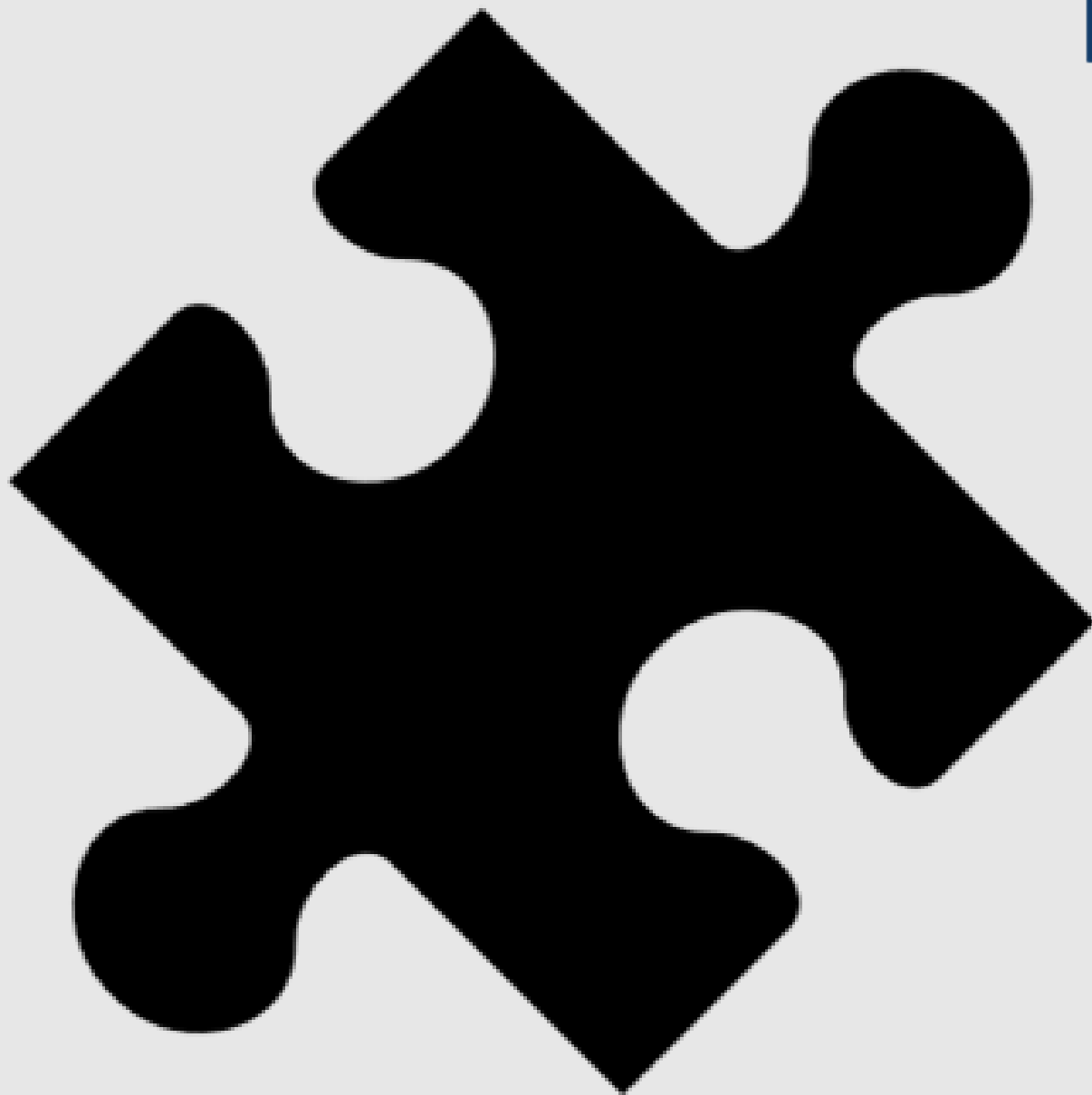


- €75 - €90 / carbon credit
- €500 hemp / hectare
- €4000 miscanthus hectare
- Pilot 2024 / 2-25
1,2 milion / 30 applications
- supply chain limiting factor
- Priority: increase market demand



Next

1. Evaluation pilot (june 2025)
2. Extend to wood, horticulture, other crops?
3. Formal publication 'user case carbon credits'
4. Innovation Impact Challenge: biorefinery / innovative building materials



Questions

How to improve the Dutch construction stored carbon credit scheme?

How to increase the market for biobased building materials?

p.t.oei@minInv.nl

www.buildingbalance.eu

Moderated discussion:

Reindert Augustijn
Province of Gelderland
Relative explanation on market exploration, strategy for CDR at provincial level

Marco van Steekelenburg
Holland

Alexander Heusschen
Utrecht

Megan Maartens
of Noord-Holland

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Province

Province of Zuid-

Province of

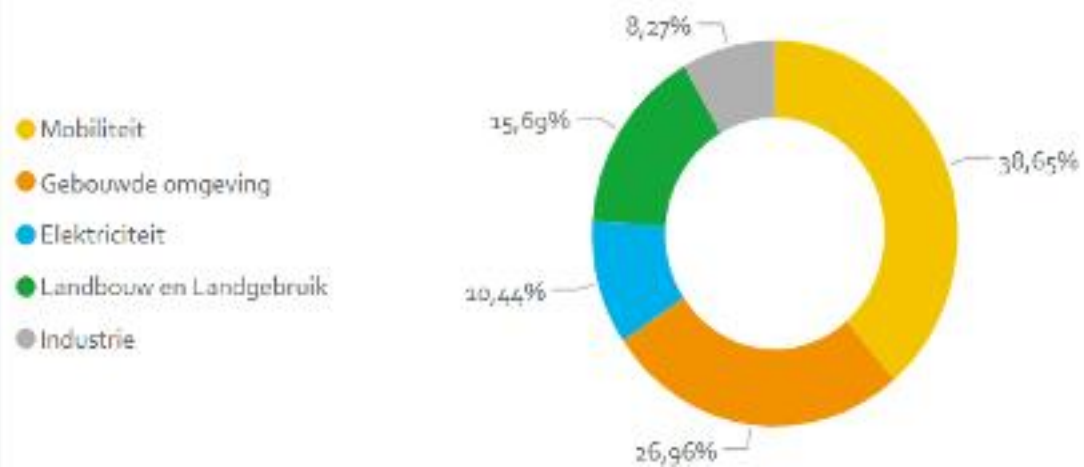
Province





PROVINCIE :: UTRECHT

Emissies per klimaatsector in provincie Utrecht (2021)



	Case 1	
	Materiaal	Energie
Niks doen	x	CO ₂ eq
Huidig plan	↑ CO ₂ eq	↓ CO ₂ eq
Circulair plan	↑ CO ₂ eq	↓ CO ₂ eq

Sequestration of CO₂ an pushed under kid at provinces?



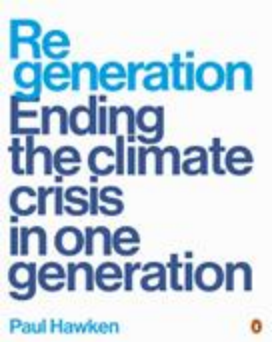
Reduction of emission of greenhouse gases

Domein	Uitstoot 2017	Uitstoot 2021	Uitstoot 2022	Afname in % t.o.v 2017
Gebouwde Omgeving	6,0 MtCO ₂ -eq	4,7 MtCO ₂ -eq	4,2 MtCO ₂ -eq	30%
Mobiliteit	4,9 MtCO ₂ -eq	4,5 MtCO ₂ -eq	4,6 MtCO ₂ -eq	6%
Industrie en bedrijven	3,5 MtCO ₂ -eq	3,1 MtCO ₂ -eq	2,8 MtCO ₂ -eq	20%
Landbouw en landgebruik	3,7 MtCO ₂ -eq	3,5 MtCO ₂ -eq	3,8 MtCO ₂ -eq	-3%

What about sequestration?

CO2 sequestration

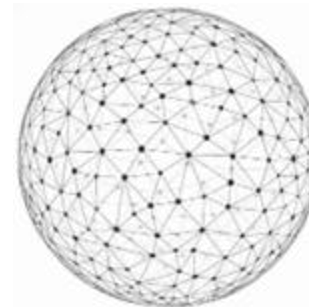
Uitbreiding van bossen aanplant bomen	10.000 ha	0,05 - 0,1 MtCO ₂ /year
Regeneratie van bossen	25.000 ha	0,1 - 0,2 MtCO ₂ /year
Bodemverbetering; Koolstof vastleggen in landbouwbodems	160.000 hectare landbouwgrond	0,05 - 0,1 Mt CO ₂ /year



1. OPEN SOURCE

By working from **measurements** and **publishing all DATA**, fast learning is facilitated which enables distributed scaling – **MANY SMALL** entrepreneurs collectively have huge impact.

Distributed scaling brings speed and by design improves local economies and biodiversity.



2. NATURE BASED

Oncra is the first framework for nature based carbon removal and storage – in bio-based **constructions**, **land**, **oceans** and **rocks**.



3. REQUIREMENTS FOR BUYERS



Oncra considers carbon credit income to be **transition FINANCE** in the nature and climate crisis.

Following the Oxford Offsetting Principles, Oncra only allows for buyers who already reduced their emissions fundamentally. This **reduces REPUTATIONAL risks** for this growing group companies already working regeneratively.

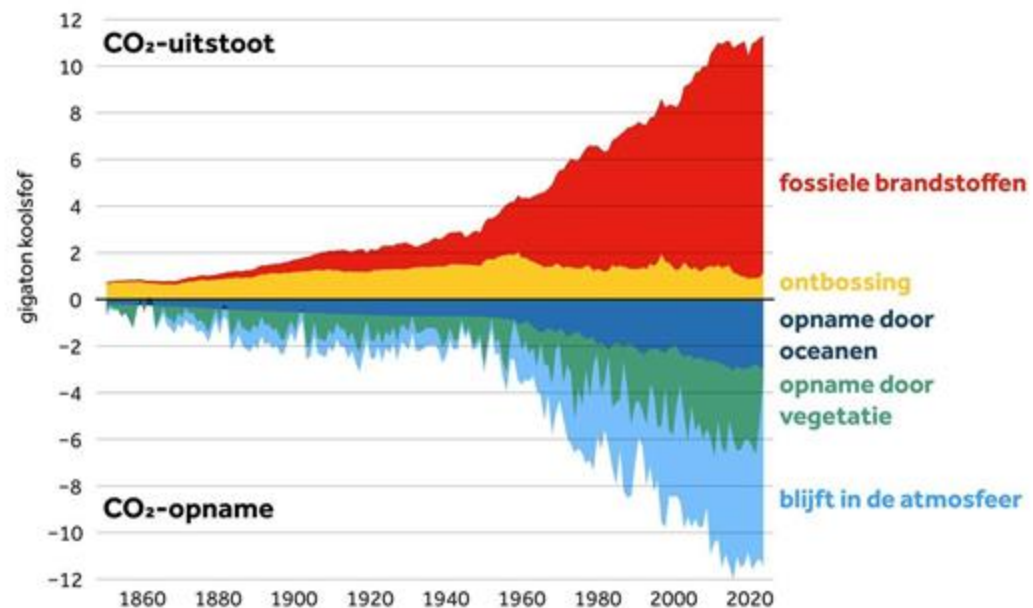


More attention for CO₂ sequestration



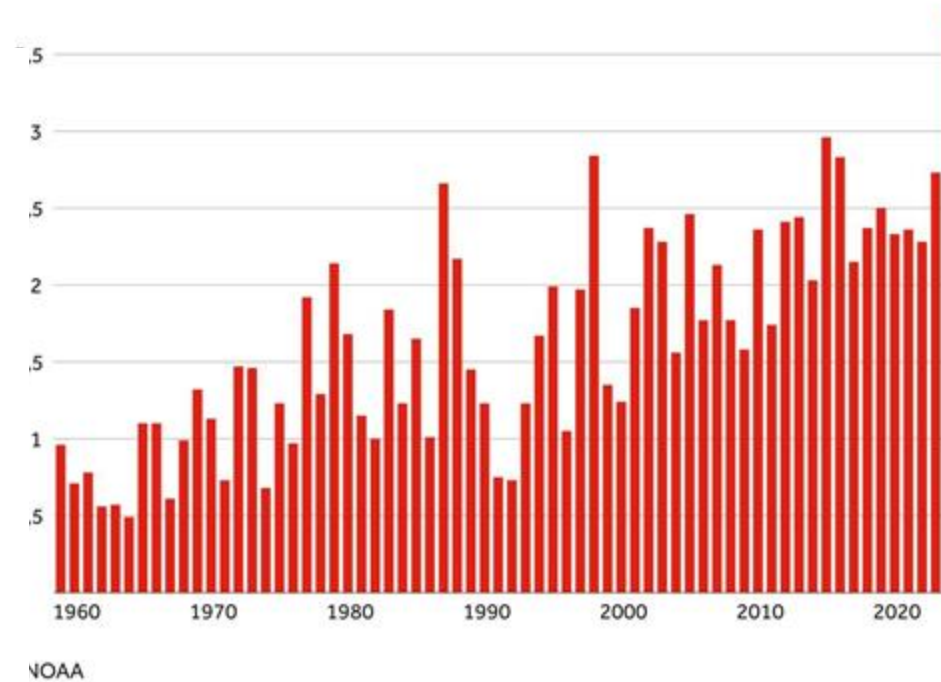
Urgency

CO₂-balans



bron: Global Carbon Project

Jaarlijkse stijging CO₂ in de atmosfeer



Market analysis sequestration



1. Enlarge knowledge
2. Establish registration and monitoring
3. Use true price of CO₂ (€ 875 per ton)
4. Implement CRCF certification
5. Use benefits for transitions
6. Stimulate innovations
7. Integrate into business operations

CE Delft study on CDR policy advice for provinces

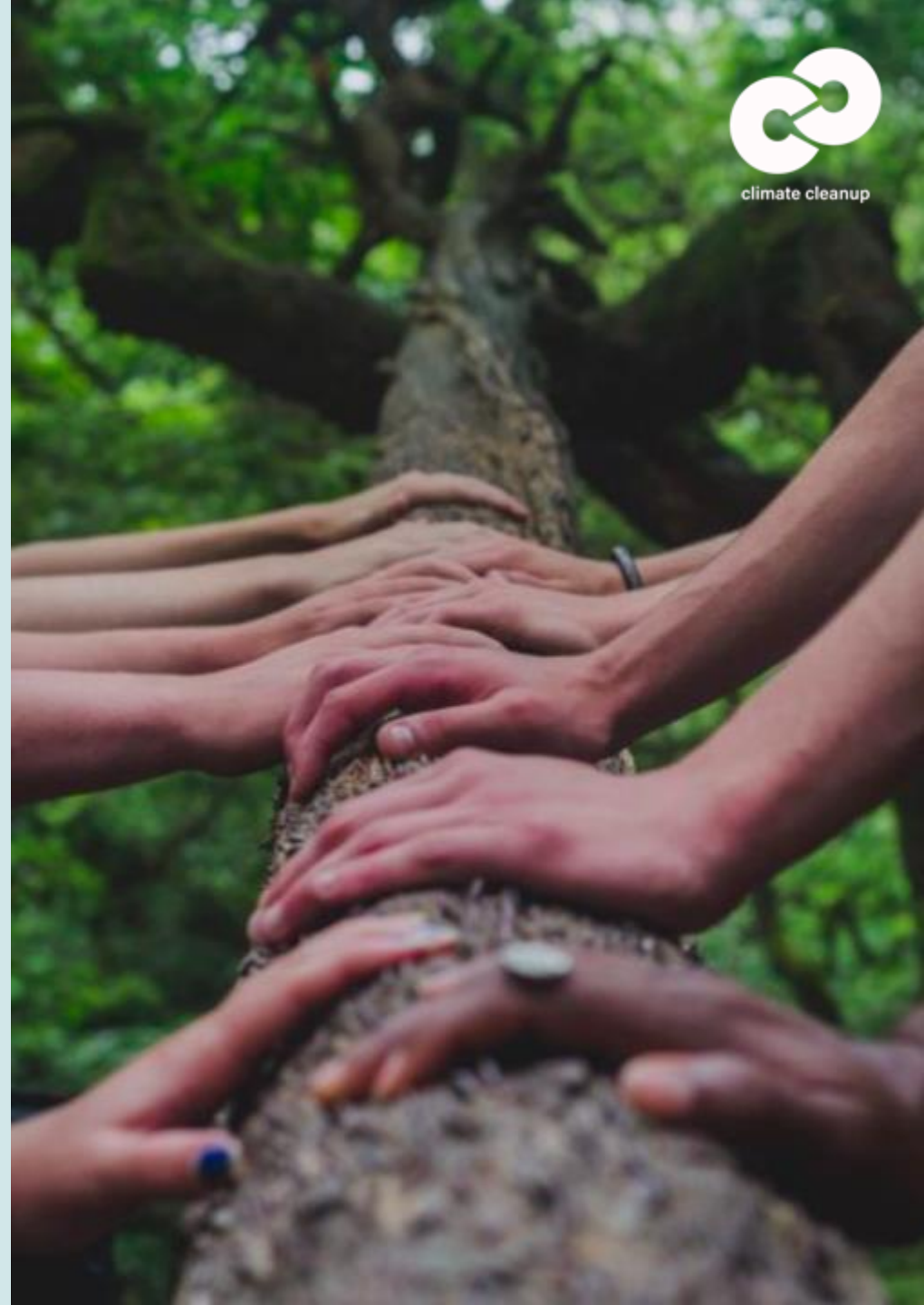
Maarten de Vries

- **Commissioned** by the provinces of Utrecht, Gelderland, South Holland and North Holland
- **Aims to advise provinces on:**
 - Key considerations and trade-offs for CDR policies
 - The roles to take up as a province in this context
 - Concrete actions and key steps in the decision process
- **Method:**
 - Gather information on provinces' policy objectives and ongoing CDR initiatives
 - Develop several coherent sets of related policy choices on a.o. policy objectives, CDR methods to focus on, specific roles to fulfil -> *four policy packages, related to Agriculture & Soil, Nature & Land Use, Industry and Materials*
 - Advise on what packages would suit best and how to set up the decision process
- Also working on **CDR crash course for local governments** and other CDR-related studies at all levels of government
- More info? E-mail me at **m.devries@ce.nl**

What is the societal value of removal in terms of policy integration?

Discussion

CDR Conference 2025



LUNCH

12.00 - 13.15

CDR Conference 2025



FINANCING REMOVAL

- How to finance scaling the green carbon economy



*Green carbon removal,
foundation of circular
carbon economy*

Onno Dwars
Ballast Nedam Development

CDR Conference 2025



BREAKOUT SESSIONS:

13.55

Zonzij room

Corporate

CDR Buyers

Garden house

Biobased Building

Portfolios

14.55

Zonzij room

Government Policy

Working Session

Garden house

Invest in

Carbon Removal

Moderators:

Joost Brinkman, Berend van Geffen

Panelists:

Goos van den Berg, Dr. Kirti Ramesh

Removers:

Marc Moons, Lars Hillewaere, Eddy Wijnker

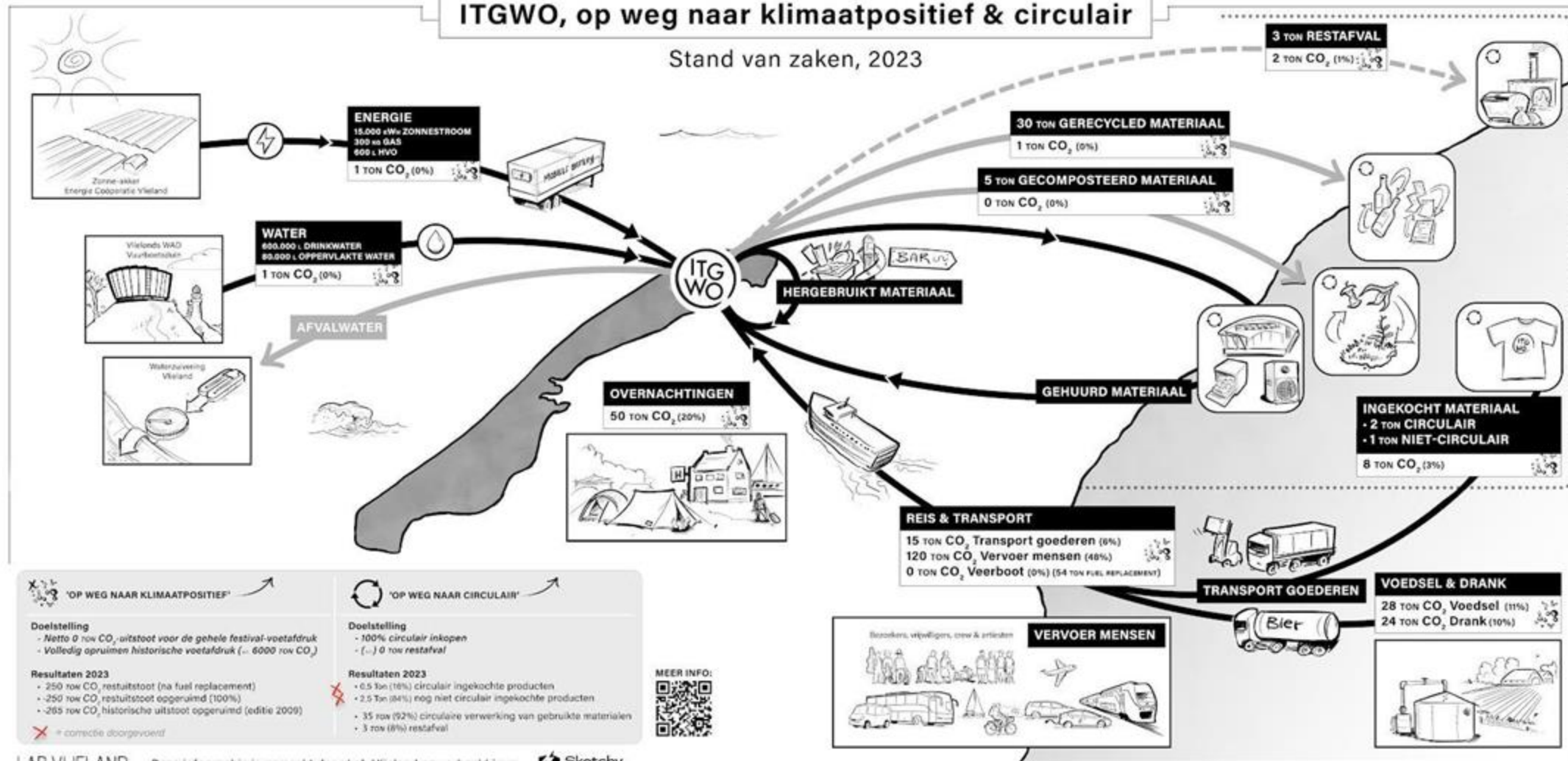
CORPORATE CDR BUYERS

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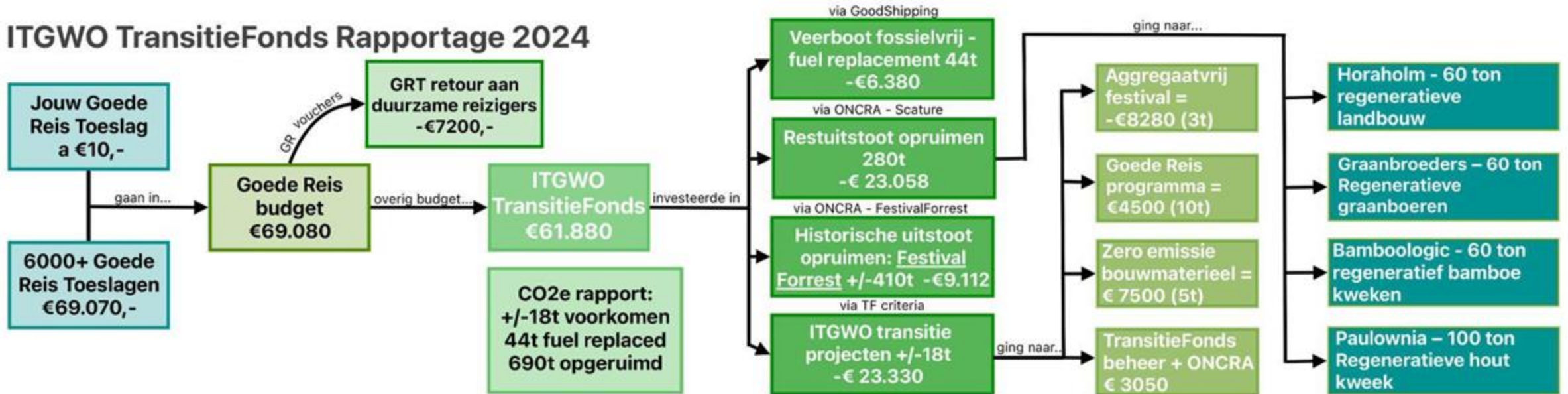


ITGWO, op weg naar klimaatpositief & circulair

Stand van zaken, 2023



ITGWO TransitieFonds Rapportage 2024



Moderators:

Joost Brinkman, Berend van Geffen

Panelists:

Goos van den Berg, Dr. Kirti Ramesh

Removers:

Marc Moons, Lars Hillewaere, Eddy Wijnker

CORPORATE CDR BUYERS

CDR Conference 2025



BREAKOUT SESSIONS:



14.55

Zonzij room

Government Policy

Working Session

Garden house

Invest in

Carbon Removal



Moderator:

Sacha Brons

Panelists:

Jeroen van der Waal, Tom van Haaren,
Megan Maartens, Alexander Heusschen,
Marco van Steekelenburg, Reindert Augustijn

Removers:

Tomas Peeters

GOVERNMENT POLICY WORKING SESSION

CDR Conference 2025



CO₂-vastlegging in biobased bouwmaterialen

Inzichten uit whitepaper



Tolhuistuin
28 mei
2025



Introductie

Wat was de aanleiding voor deze publicatie?

We zagen:

- Potentie in de bouwsector voor CO₂-vastlegging
- Circulaire materialentransitie, o.a. ontwikkeling Het Nieuwe Normaal
- Beweging richting carbon credits
- (negatieve) publiciteit rondom 'global south' carbon credits

Maar..

Gefragmenteerde kennis en behoefte aan praktisch handelingsperspectief



Introductie

Gezamenlijke publicatie Copper8 en Climate Cleanup



**Tomas
Peeters**



**Sybren
Bosch**



**Sacha
Brons**



Meelezers

- Pablo van der Lugt (TU Delft)
- Jan-Willem van de Groep (Building Balance)
- Sam Dijsselbloem (RVO)
- Mark Compeer (NICE Developers)
- Imme Groet (Convenant Houtbouw MRA)
- Cécile van Oppen (Copper8)

Inhoud publicatie

Wat staat er in de publicatie?

Onderwerpen

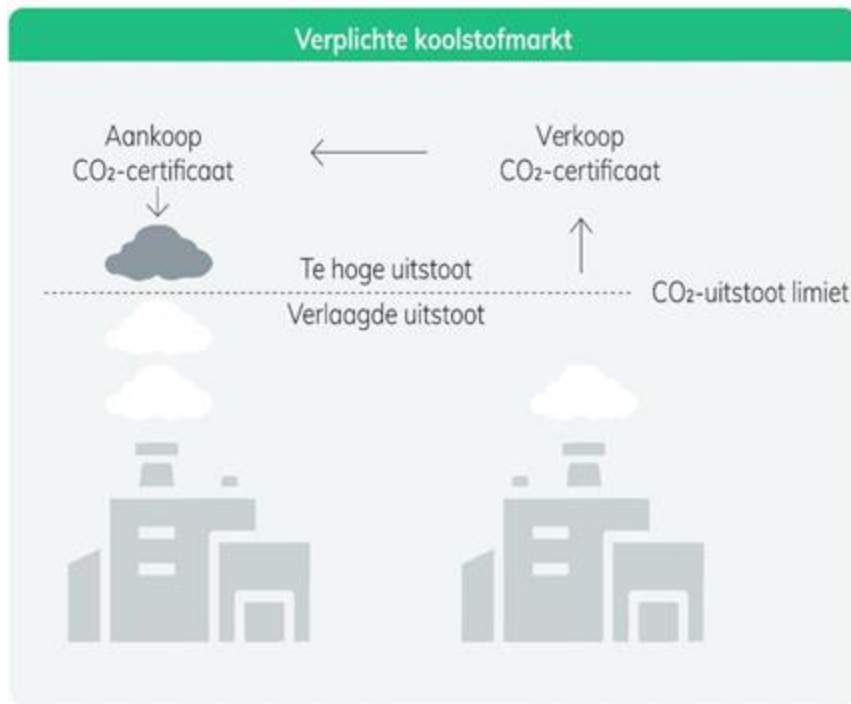
- Definitie **markt** voor carbon credits
- Toepassing voor verschillende **biobased bouwmaterialen**
- Samenhang met **Europees raamwerk**
- **Certificering** van carbon credits
- Toepassing carbon credits op **verschillende niveaus**
- **Aanbevelingen** bouwsector & beleidsmakers



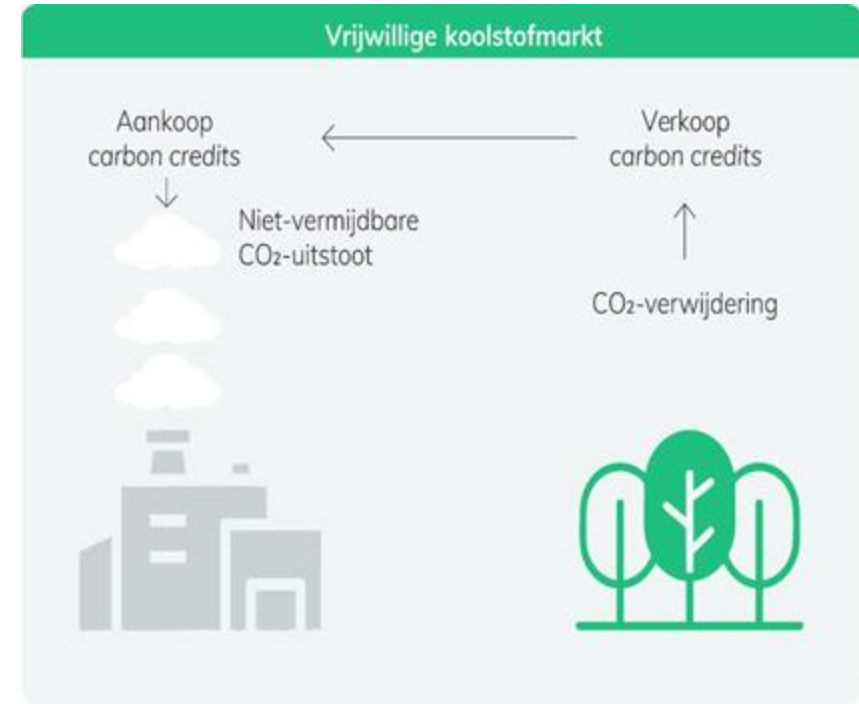
Markt voor CO₂

Op welke markt worden carbon credits verhandeld?

Vrijwillige markt versus verplichte markt



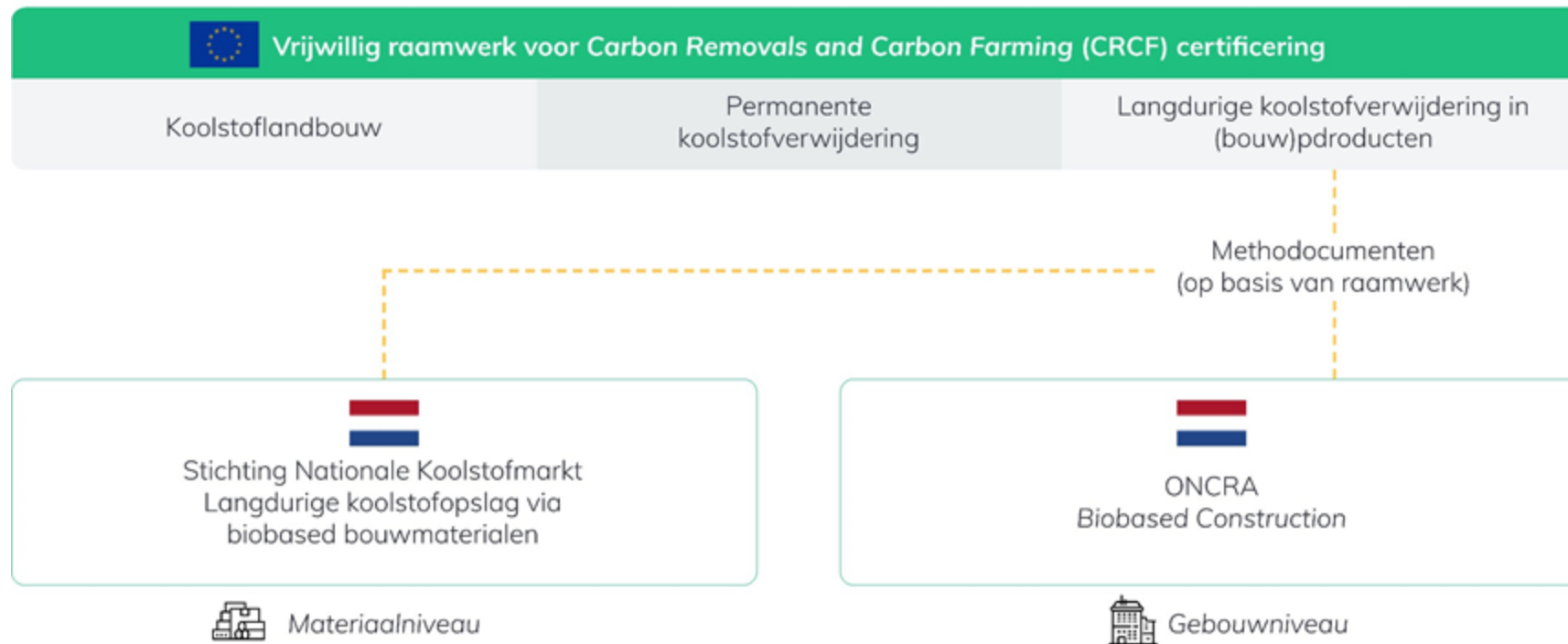
versus



Materiaal- en gebouwniveau

Hoe worden carbon credits toegekend?

Bestaande certificeringsmethodieken



Figuur 4 | Samenhang tussen Europees raamwerk voor CO₂-verwijdering en nationale methodedocumenten voor CO₂-vastlegging in biobased bouwmaterialen

Materiaal- en gebouwniveau

Hoe worden carbon credits toegekend?

Europees raamwerk

Carbon removal and carbon farming framework (CRCF) voor de vrijwillige markt van carbon credits

QUALITY-criteria voor certificaten:

- **Quantification**
- **Additionality**
- **Long term storage**
- **Sustainability**



Materiaal- en gebouwniveau

Illustratie



Organisatieniveau

Wat kunnen organisaties met deze credits?

Oxford Offsetting Principles zijn leidend

- Eisen aan kopers certificaten (ONCRA)
- AFM richtlijnen rondom communicatie & claims

Certificaten in eigen boekhouding of verkoop, rapportage conform:

- CSRD / Omnibus
- Science Based Targets initiative (SBTi)

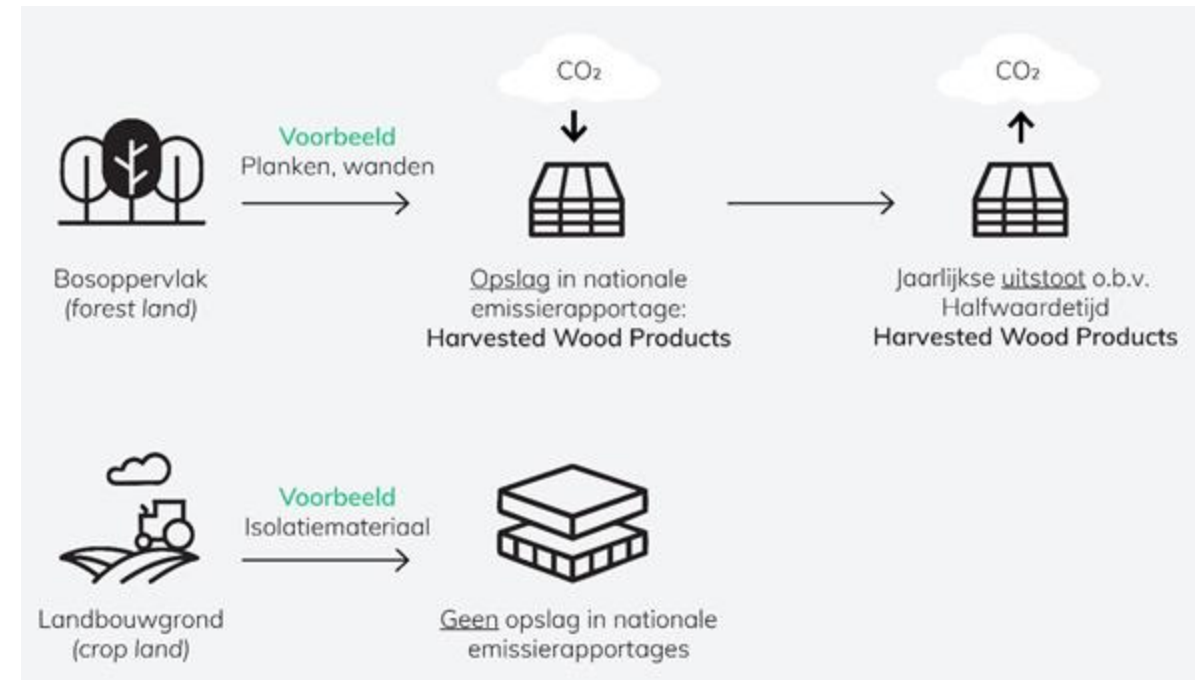


Nationaal niveau

Hoe tellen biobased (half)producten mee in nationale rapportages?

Rapportage vanuit Parijsakkoord en Europese klimaatwetgeving

- Vastlegging in ***Harvested Wood Products*** (HWP) valt in categorie ***Land Use, Land Use Change and Forestry*** (LULUCF)
- Vezelgewassen vallen in z'n geheel **buiten** deze registratie
- Vaste rekenregels op basis van **halfwaardetijd**, met vrijkomende emissies



Aanbevelingen voor beleidsmakers

Wat kunnen beleidsmakers doen?

1. Stuur expliciet op de **toepassing van biobased bouwproducten** om een schaalsprong te maken
2. Ontwikkel een **nationaal monitoringsinstrument** voor CO₂- vastlegging in biobased bouwmaterialen
3. Borg toekenning van CO₂- vastlegging in **biobased gebouwen** en **vezelgewassen** in LULUCF- rekenprotocol
4. Stel de **halfwaardetijd** bij voor kort- en langcyclische biobased bouwproducten



Routekaart koolstofvastlegging

Wat is de koppeling met de Routekaart?

Structurele inzet op koolstofverwijdering, via industrie én via biobased bouwen.

Biobased bouwen:

*"De toepassing van vezelgewassen kan in de bouwsector leiden tot circa 1,6 megaton CO₂-reductie per jaar in 2030 (ten opzichte van business as usual): 0,53 megaton dankzij verdringing van CO₂-intensieve materialen en **1,04 megaton via koolstofvastlegging in bouwwerken.***

*Hierin is de toepassing van hout als bouw materiaal nog **niet** meegewogen."*

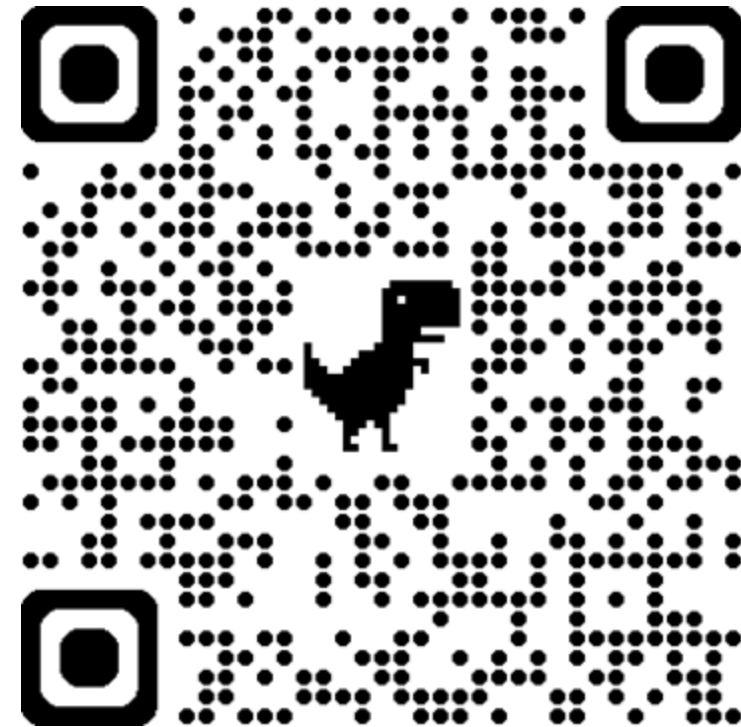


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