

Business case of pyrolysis – who will own the carbon credits and how can the GHG-reduction be used?

Lars Villadsgaard Toft
Chief consultant, Biogas & Biorefining

October 2024

STØTTET AF

Promilleafgiftsfonden for landbrug

SEGES
INNOVATION



**Someone has to pay for the carbon
sequestration to make pyrolysis
feasible**

THE VOLUNTARY CARBON CREDIT MARKET

- Carbon credit standards have been established to strengthen the credibility.
- Third-party verifications are typically used to strengthen credibility.
- NASDAQ has established a marketplace for carbon credits from biochar.
- The price of climate credits varies from a few dollars to several hundred dollars, depending on the initiative.
- In 2022 biochar carbon credits of 237,000 ton of CO₂ were sold.

THE VOLUNTARY CARBON CREDIT MARKET



baseret denne teknologi. Foto: Stiesdal.

FØDEVARER

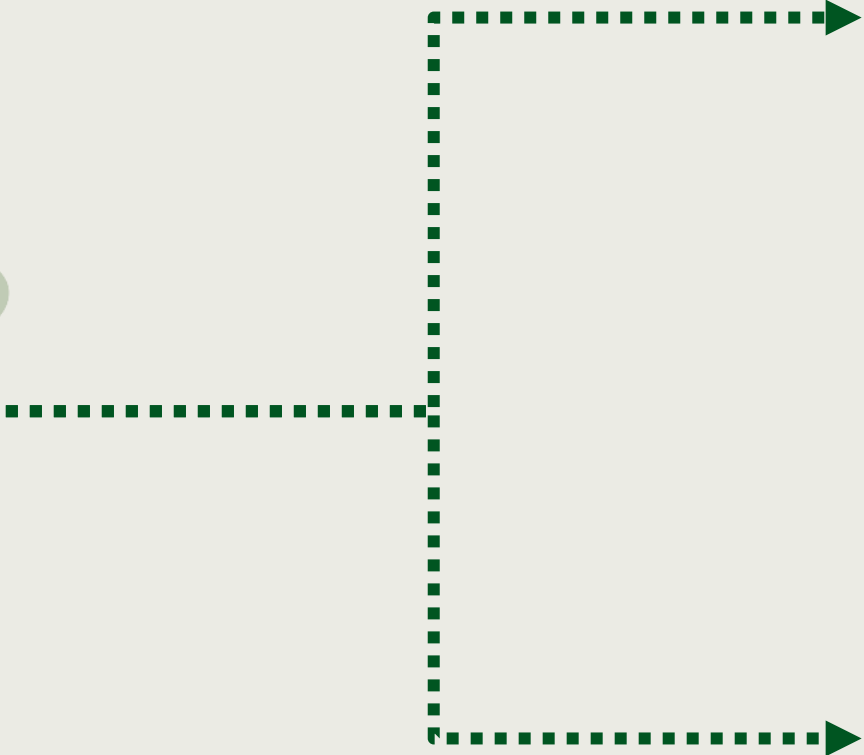
Prisen var 160 euro per ton: Stiesdal sælger Danmarks første klimacertifikater fra biokul til schweizisk helikopterfirma

Det var en skelsættende begivenhed, da Stiesdal mandag den 3. juli solgte det første danske klimacertifikat baseret på biokul. Nu er processen i gang, og det kommer kun til at vokse fra nu af, lover firmaet.

The EU carbon removal certification framework

- Expert groups are working on Technical Assessment paper for agricultural land, biochar and other topics
- The framework is expected to be implemented around 2028
- Additional = beyond national and EU legislation

CARBON CREDITS OR CARBON NEUTRAL PRODUCTS?



Carbon credit



Products with reduced carbon footprint

Options to create and share economic value from carbon sequestration



55-65% reduction of GHG emission in the Danish agricultural sector ✓

EU carbon removal certification framework

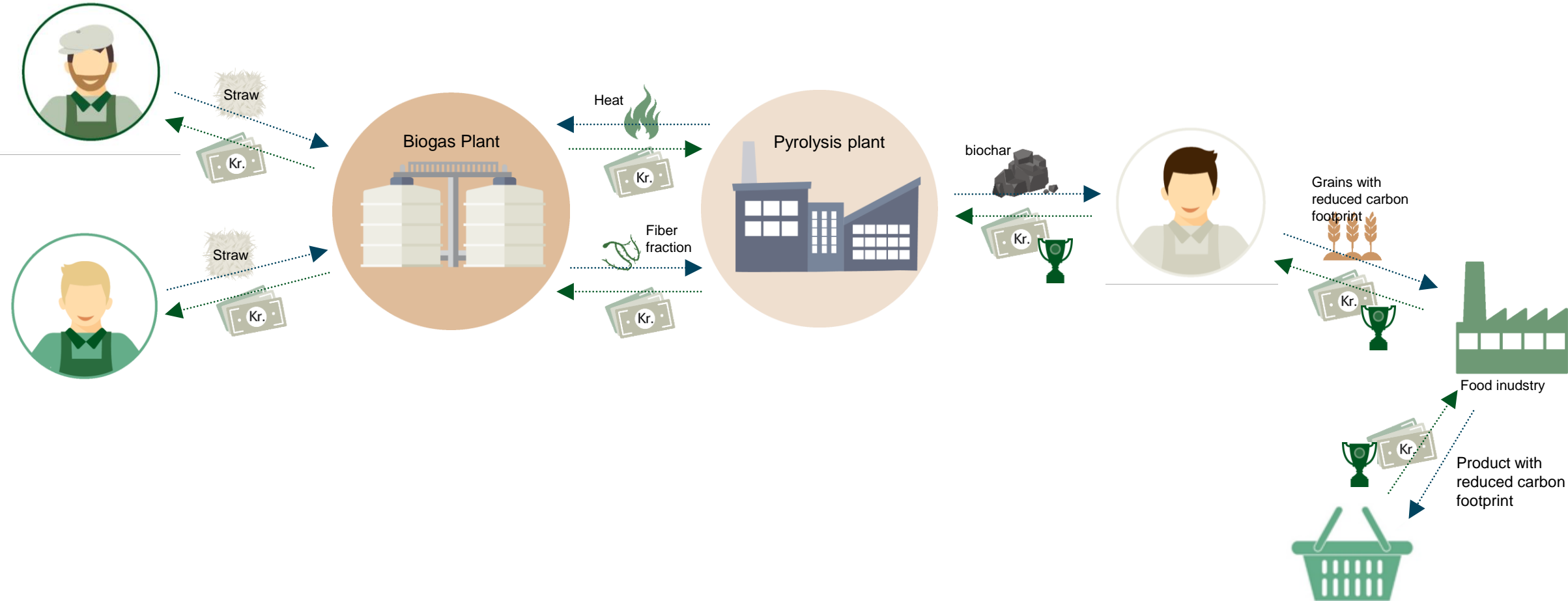
The voluntary carbon market

Products with reduced carbon footprint

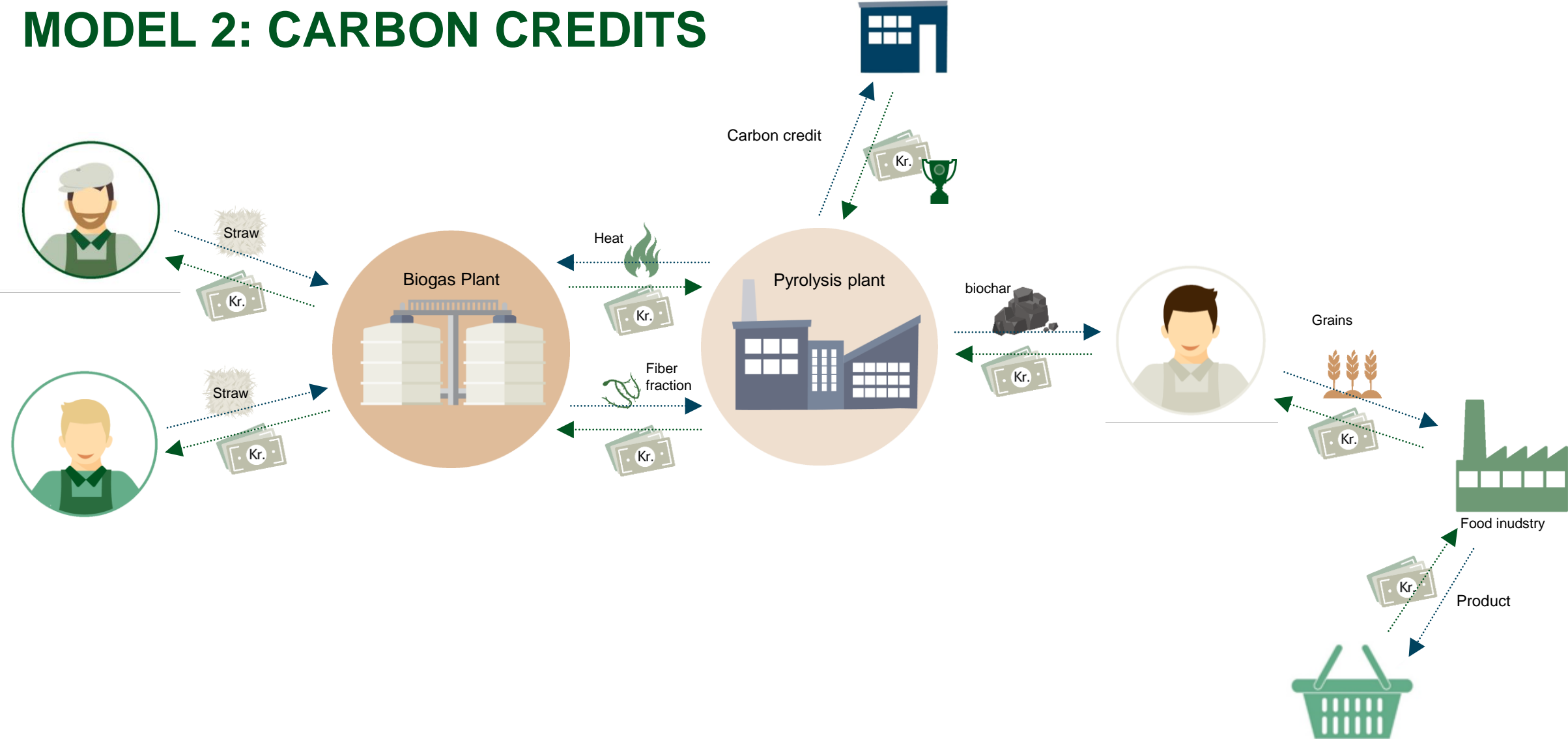
10 billion DKK subsidy scheme for carbon sequestration in biochar

Biochar as tool for mitigation of carbon tax?

MODEL 1: NO CARBON CREDITS



MODEL 2: CARBON CREDITS



QUESTIONS?

