



Getting paid for carbon on farms

27 April 2023
6.30 – 7.30pm

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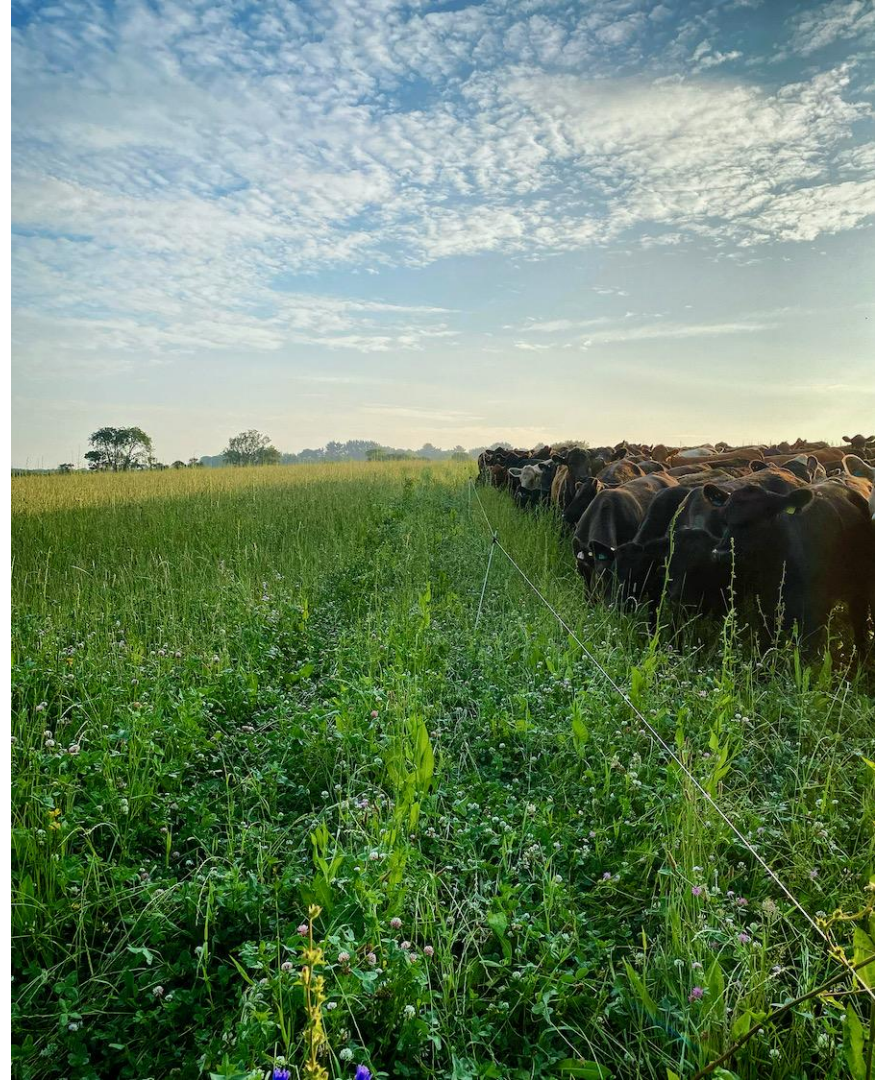
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Agenda

1. Introducing the Farm Carbon Toolkit
2. Context on the increasing interest around carbon and climate change
3. Getting paid for carbon: key concepts and carbon markets
4. Examples
5. So what?



Introduction: Farm Carbon Toolkit

- Established 2009
- Created by farmers for farmers
- Free Farm Carbon Calculator & online toolkit
- Farmer-to-farmer learning, training & support
- Soil Farmer of the Year competition
- Practical advice and research
- Bridge between the science and farming



farmcarbontoolkit.org.uk

Context:

The increasing interest
around carbon

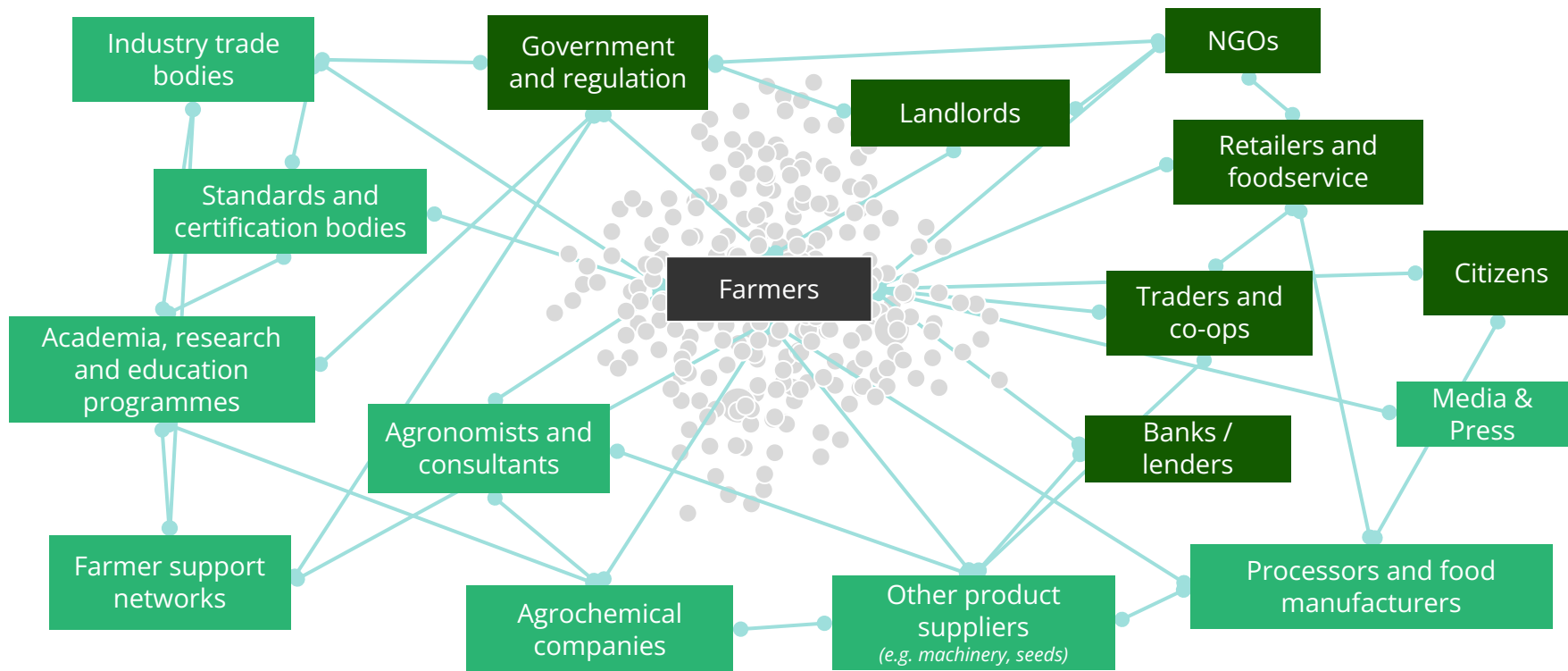
The background of the slide is a solid teal color. On the right side, there is a faint, abstract graphic consisting of several concentric, semi-circular arcs and horizontal lines, creating a sense of depth and movement.

Increasing interest and urgency to act on carbon

- Urgency to act on climate change is becoming ever more real
- Pressure on companies to address their emissions → major commitments
- Carbon increasingly “valued” as something to manage and invest in
- No sector or business is considered exempt from taking action



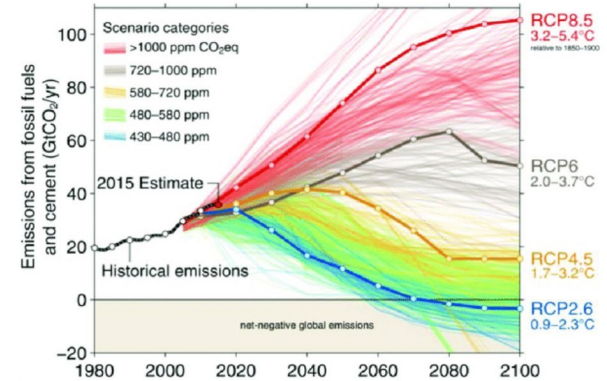
Pressure to decarbonise coming from many angles



How are governments and civil society responding?

FARM
NET
ZERO

- **International commitment** aiming to keep warming below 1.5°C.
2015 Paris Agreement
- **UK target** requiring emissions reductions by at least 100% by 2050
Climate Change Act 2008



How are companies are responding?

Companies are rushing to declare commitment to “net zero” emissions

Recent analysis suggests a fifth of the world’s 2,000 biggest publicly traded firms, with sales of \$14trn a year¹

A selection of food companies...



Commitments on agriculture often framed as **regenerative agriculture**.

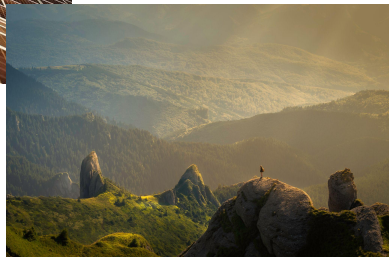
1. The Economist (8 Nov 2021), “Companies’ promises to hit net-zero will be put to the test”. The World Ahead 2022.

Useful reading: Climate Change Committee (2022), [Voluntary Carbon Markets and Offsetting](#).

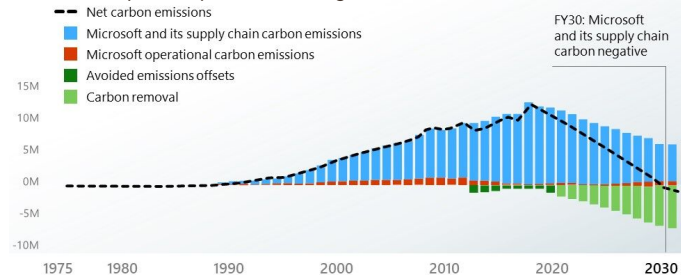
How are companies are responding?

Net Zero commitments – what do we think?

- Aligned with what the science demands.
- Commitments can be slippery & on a long-term horizon.
- Carbon offsets and investment in nature-based solutions a common part of achieving net zero goals
- ... yet should not be a substitute for direct business emissions reduction



Microsoft's pathway to carbon negative:

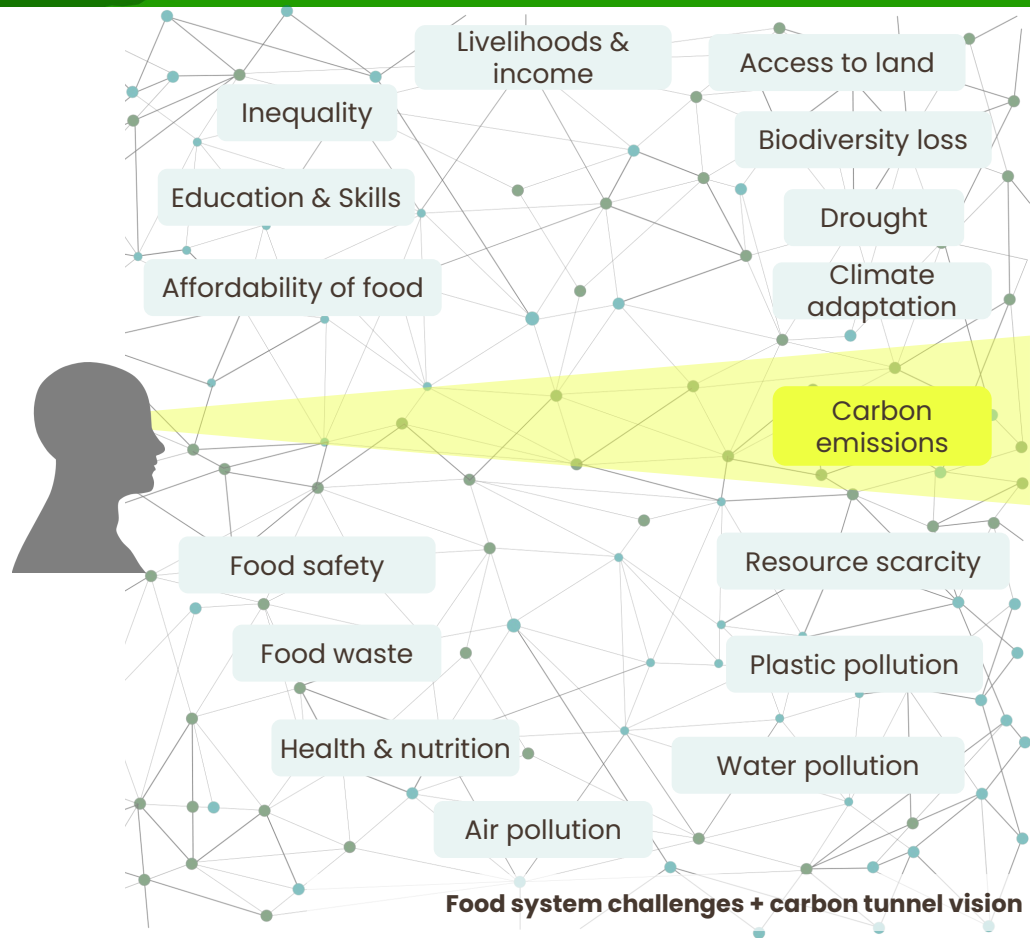


Acting on carbon is one of many critical priorities

While climate change presents an existential crisis for humanity...

...carbon is one aspect of farm and food sustainability

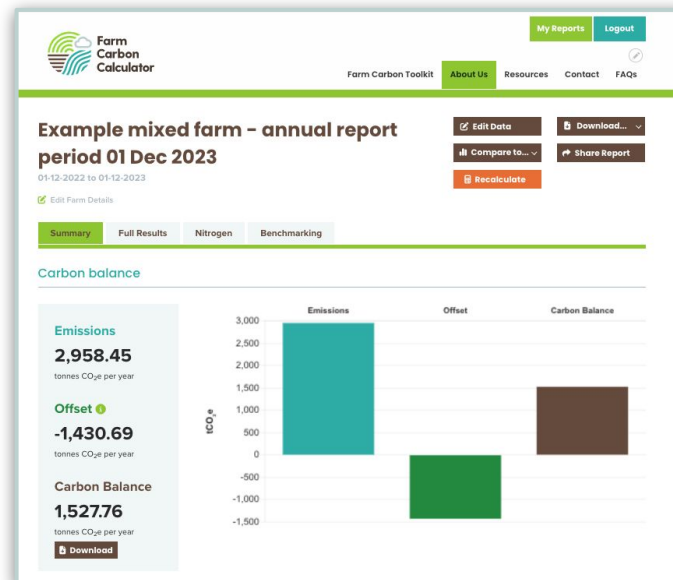
Many critical issues and many are interconnected.



Farming is in a unique position to help

FARM
NET
ZERO

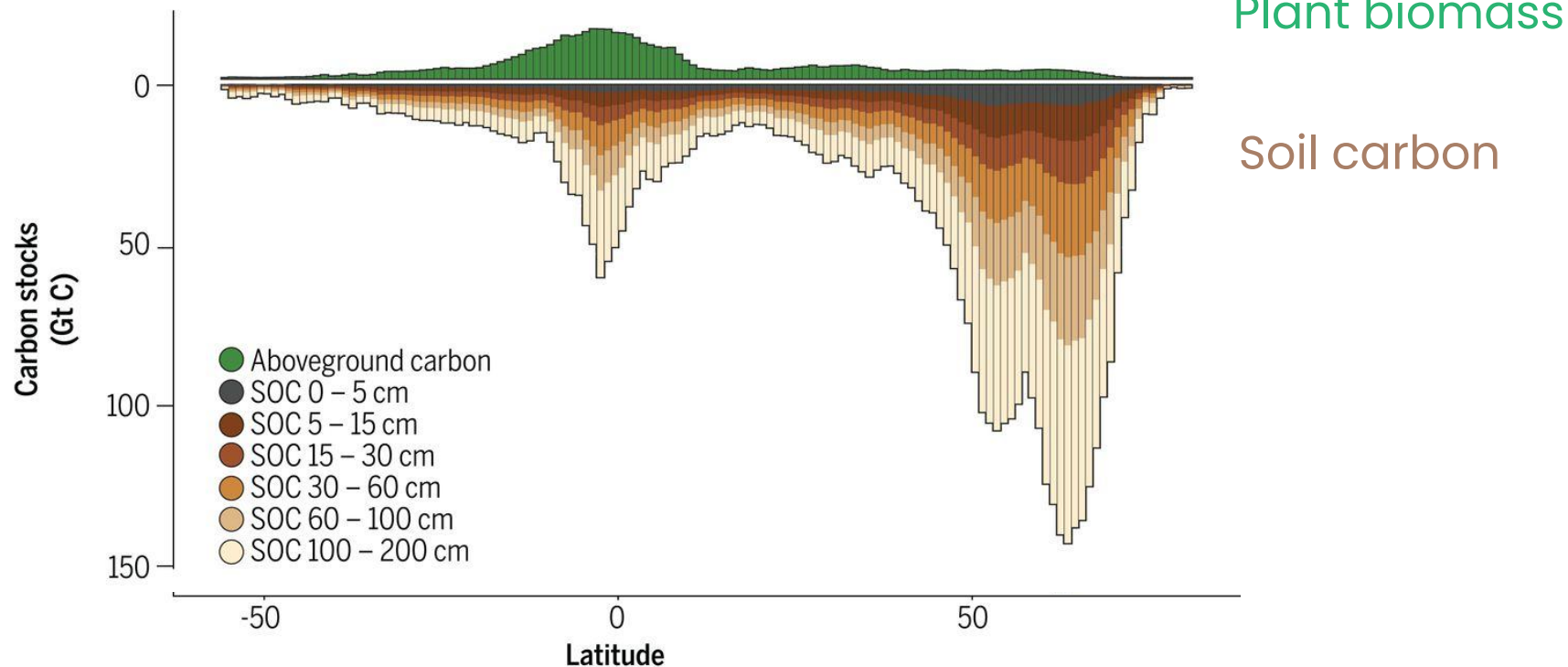
- Farms can sequester and store carbon.
Most other businesses can't do this.
- Carbon footprinting is the first step to quantifying a farms contribution to climate change
- Helps identify areas of improvement and make more informed decisions.



Use our free Farm Carbon Calculator:
farmcarbontoolkit.org.uk

The importance of soil carbon stocks

Terrestrial carbon stocks



Getting paid for carbon:

key concepts and
carbon markets



Getting paid for carbon on farms

Various schemes already **pay for sustainability**.

Either:

- (1) for specific practices or activities, or
- (2) outcomes-based.

Might directly or indirectly support carbon reduction.

e.g.

- Government schemes for “public goods”: SFI, Countryside Stewardship
- Supply chain projects
- Water companies
- Grant funded projects like Farm Net Zero
- Developers paying for biodiversity net gain
- Other: e.g. Westcountry Rivers Trust – Channel Payments for Ecosystem Services

Fewer schemes **pay farmers specifically for carbon** reduction or sequestration:

- **Woodland creation**
under the Woodland Carbon Code.
- **Peatland Restoration Code**
- **NEW: Soil carbon, Hedgerow carbon**

e.g.

- Woodlands: Forest Carbon, Woodland Trust, TillHill
- Soil carbon: Agreena, Soil Capital, Trinity AgTech
- Farms and soils: specific supply chain projects
e.g. Nestle / FirstMilk

Projects may involve carbon **offsetting** or **insetting**...

Carbon **offsetting** vs Carbon **insetting**

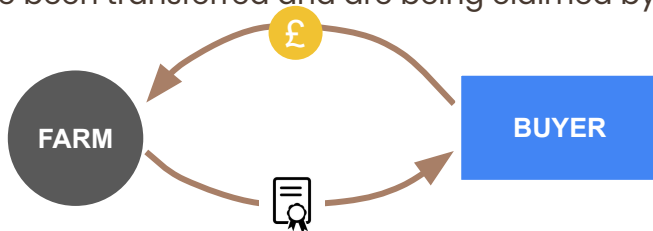
payment could be
from anywhere

is within a supply or value chain

How you “sell” your carbon

Carbon offsetting example:

- An airline company buys 100 carbon offset credits.
- 1 credit = 1 tonne of carbon (CO₂e)
- The purchase supports a project to reduce or sequester 100 t CO₂e. e.g. woodland creation
- Project must be additional: it wouldn't have happened otherwise.
- Buying the credits enables the airline company to claim the reduction towards their own GHG reduction goals.
- The farm cannot legitimately claim a carbon improvement, as carbon credits have been transferred and are being claimed by the buyer.

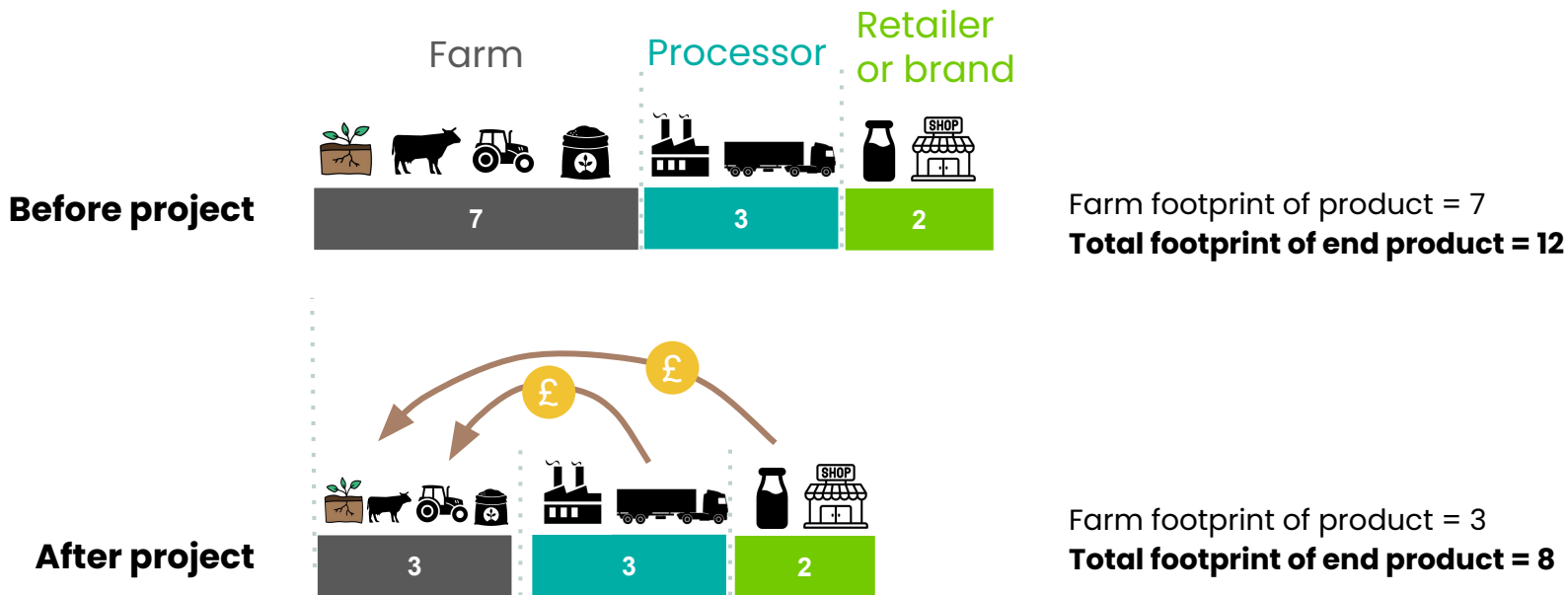


This is referred to as the **voluntary carbon market** - as it's voluntarily done by organisations, compared to compliance offset markets such as the [Clean Development Mechanism](#).

- **Existed for decades** to help fund environmental projects around the world
- **Often tree-planting, clean cookstoves, early-renewable energy projects.** Not agriculture.
- **Quality and trust is variable:** many schemes have suffered reputational damage for false or inaccurate claims, or lacking permanence.
- **Common principle that companies must do as much as they can to reduce their own emissions first.** Offsetting is a last-resort or temporary action.

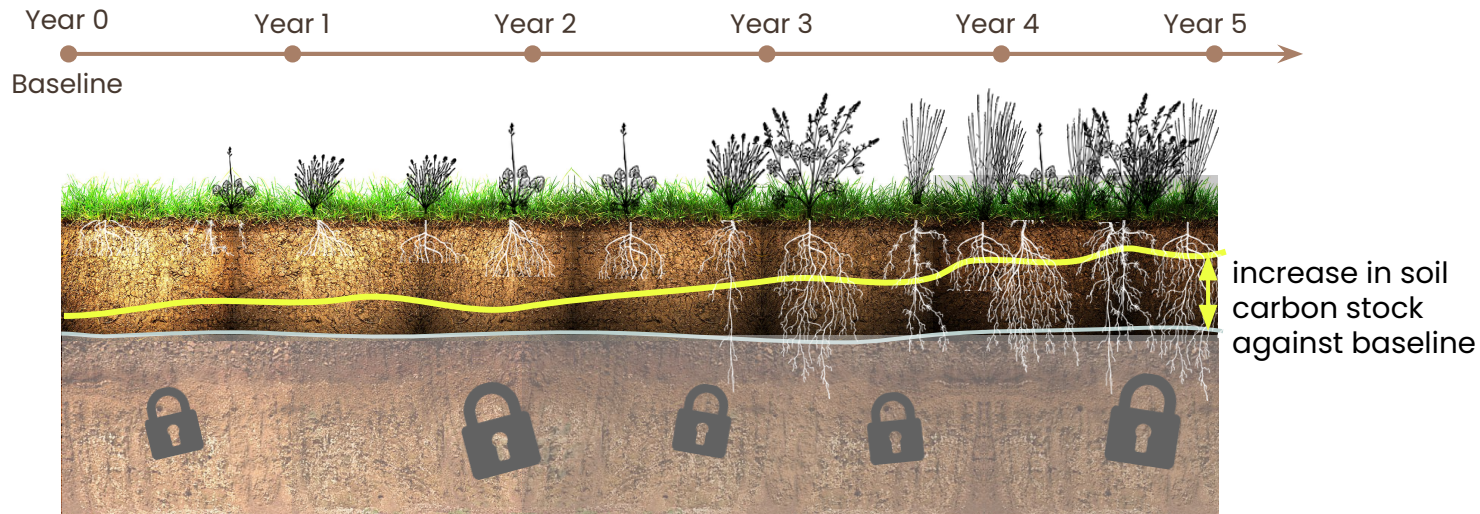
Carbon offsetting vs carbon insetting

Simplistic example of carbon insetting



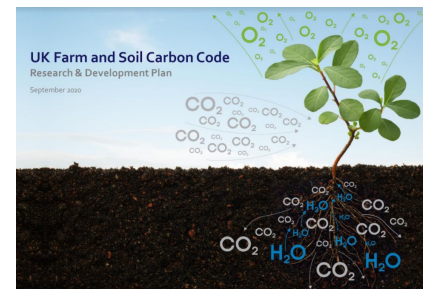
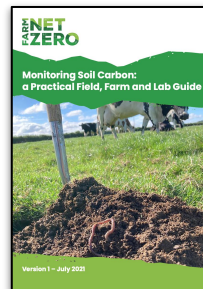
What is being traded/invested in?

Farmers are not being asked to
trade all the carbon in their soil



The design and quality of all these schemes vary significantly:

- **Is the method for measurement and verification robust?**
 - Robust evidence-based models?
 - Physical measurements or remote sensing?
 - Accurate measurement?
- **What's the scope?**
 - whole farm
 - per field
 - product specific



Issues specific to offsetting:

- **Who “owns” the carbon?**
tenant or landlord?
- **Additionality:**
was it going to happen anyway?
- **Permanence:**
how long will the greenhouse gases stay out of the atmosphere? How guaranteed is this?
- **Double counting**
Buyer has exclusive claim to the carbon.
What’s the footprint of your crops/farm now?
What can you report to your supply chain?
- **Carbon leakage**
Does the project result in an increase in emissions elsewhere?

Examples of schemes



Examples of schemes in the UK paying farmers for carbon

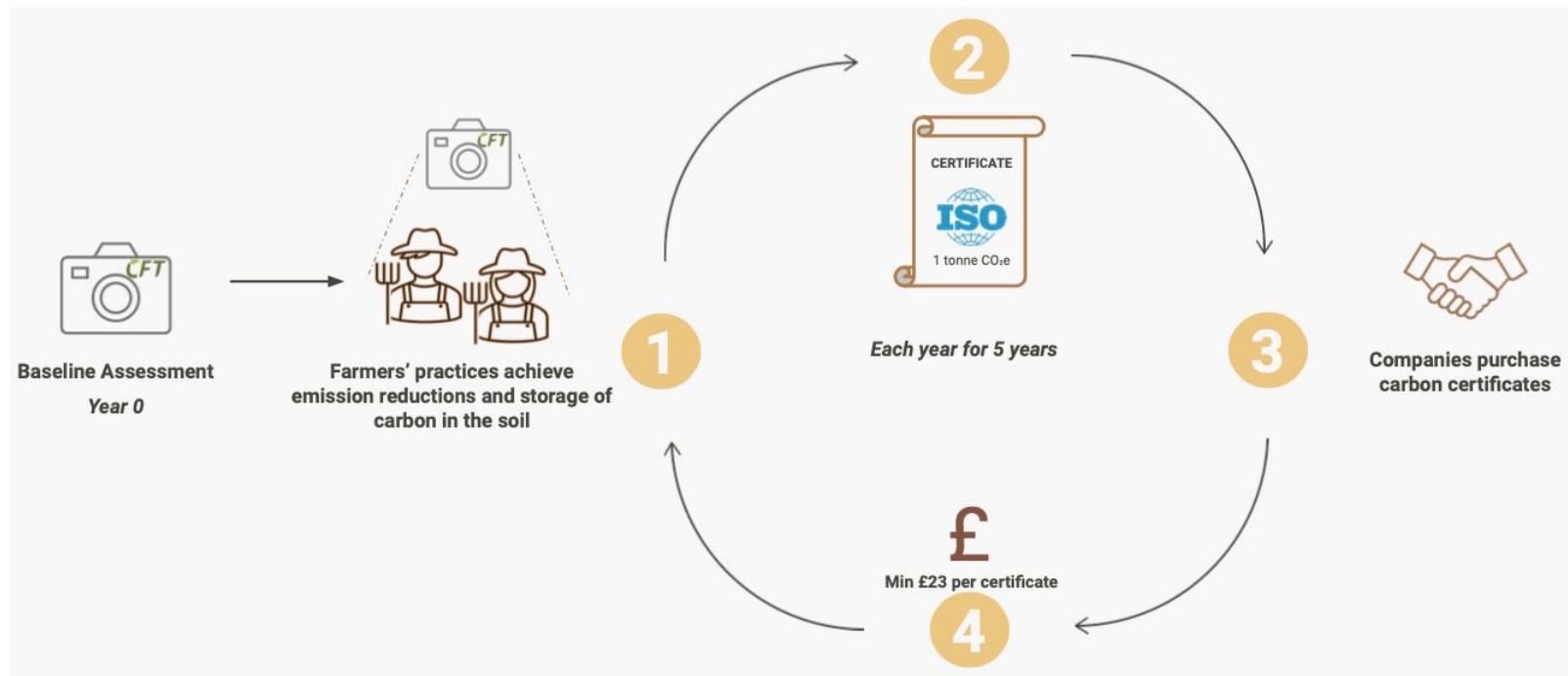
- Soil Capital
- Agreena
- Green Farm Collective
linked with Trinity AgTech
- Trinity AgTech (Sandy)





- **UK, France & Belgium:**
1,025 participating farmers to date
- **Arable focused at field-level:** stubble to stubble
- **Insetting* not offsetting**
**except it's not necessarily involving your direct supply chain*

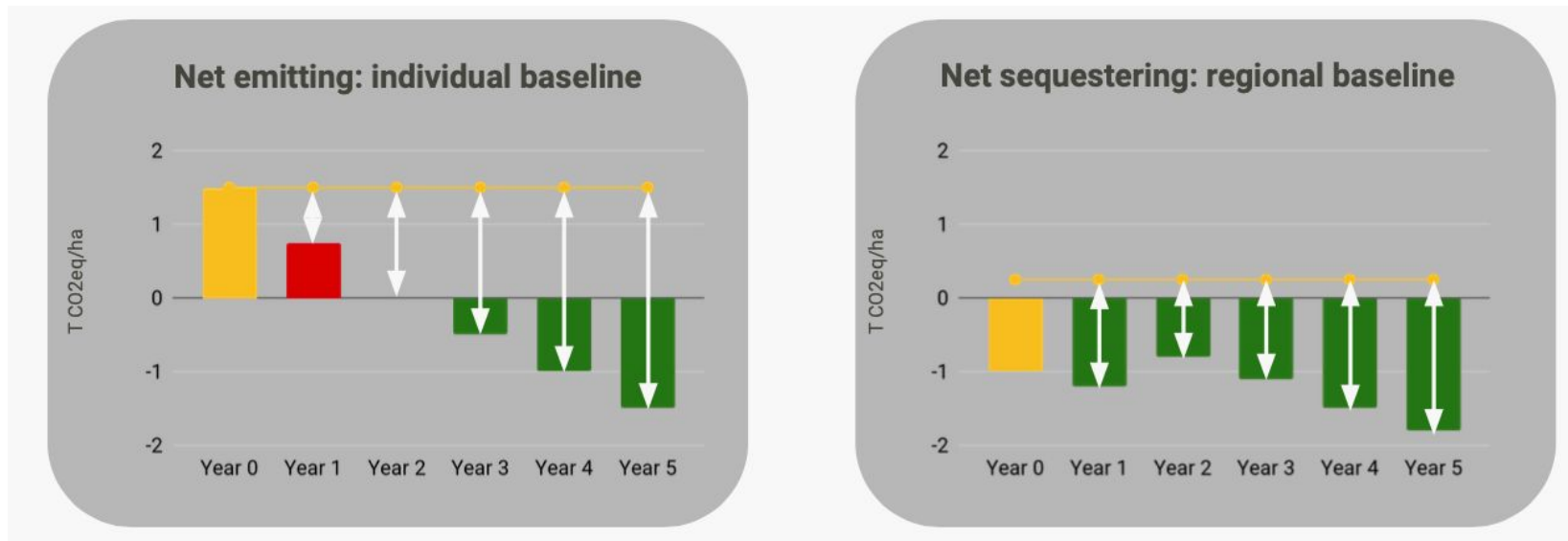
Actual soil analysis measurement in year 0 & 5
Uses Cool Farm Tool as calculation engine





- **Annual carbon payments, over 5 year crediting period**
min. price £23 per tonne CO₂e
Most farms earn £1,000 - £10k, medium = £4,125
- Have an ISO standard: their “rule book”
- **20% buffer** is retained for further 10 year period when there is satellite monitoring
- **No clawback:** ability to leave at anytime (you just lose the 20% buffer)

Two methodologies for how carbon credits may be generated:



If you are a net emitter: against the results of your own baseline assessment

If you are a net sequester: against a standard baseline for your region

So what?

Conclusions



- Farmers should be rewarded for doing the right thing: for carbon and beyond
- Blended finance models make sense – for supporting the many services farmers can provide to society beyond food/fibre
- Offsetting has various challenges associated with it: go careful!
- Issues of fairness: each farm has a different starting point – through historical work and sheer luck of location etc.
- It is complicated for mixed / livestock businesses so no need to rush into anything – data from FNZ may well help to inform the viability of these models for livestock systems.....
- For any scheme the starting point is a baseline

So what does this mean for farmers?

- There is a lot of noise but presently the markets for offsetting are only available to arable farmers
- Model versus measurement – what difference does this make in terms of entry requirements?
- The importance of baselining
- How do we baseline soil carbon for future payments?
- Don't forget the wider benefits of implementing practices
- Any practices need to align with the farm's strategic direction – don't just follow the money



Thank you

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Becky Willson



www.farmcarbontoolkit.org.uk/farmnetzero

