

Carbon sequestration and the Australian hemp fibre industry

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AHC Fibre Forum



Topics

- Introduction – climate maths
- Verra & project boundary
- Central data collection platform
- Structure of carbon offset market
- What's in it for farmers and builders
- onehectareonehome



From this comes the business case for industrial hemp



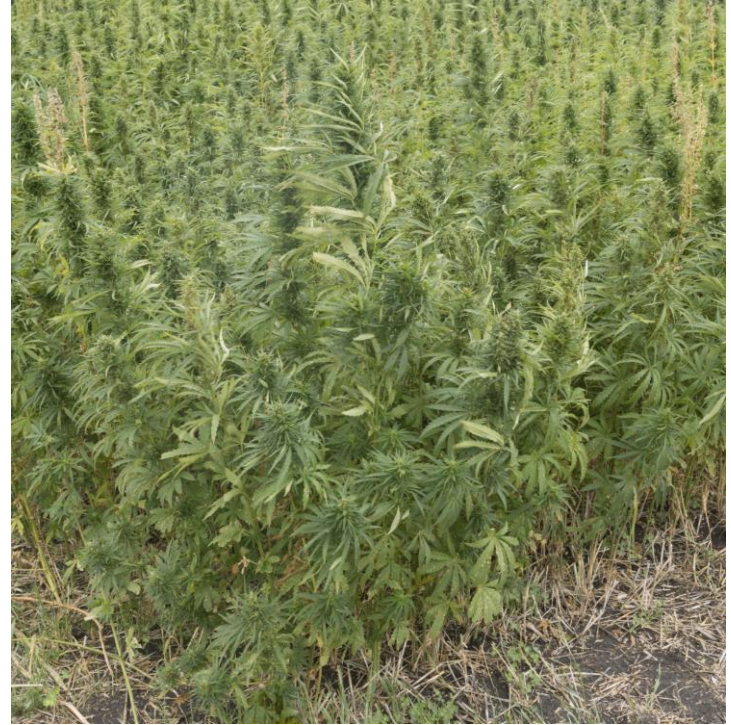
Currently, 51 gigatonnes of greenhouse gas were emitted into the atmosphere last year (2022). If we want to stay at 1.5°C warming we needed those emissions to be no more than 25 gigatonnes. That didn't happen. Therefore, this year we need it to stay at 24 gigatonnes and the following year 23 and so on.

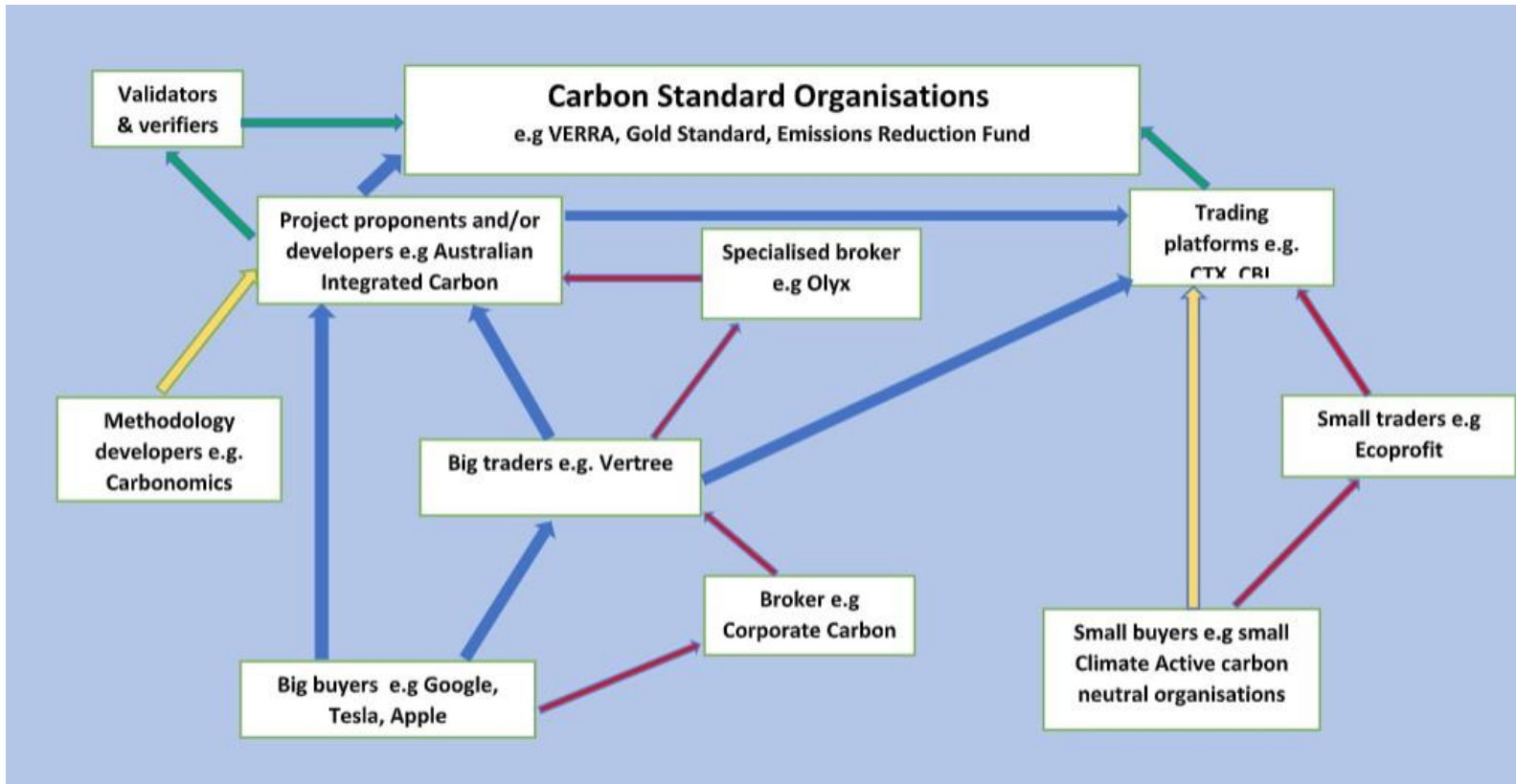
Current total removal offsets 0.15GT. There are efforts to scale up to 2GT by 2030.

Therefore removal offsets needed

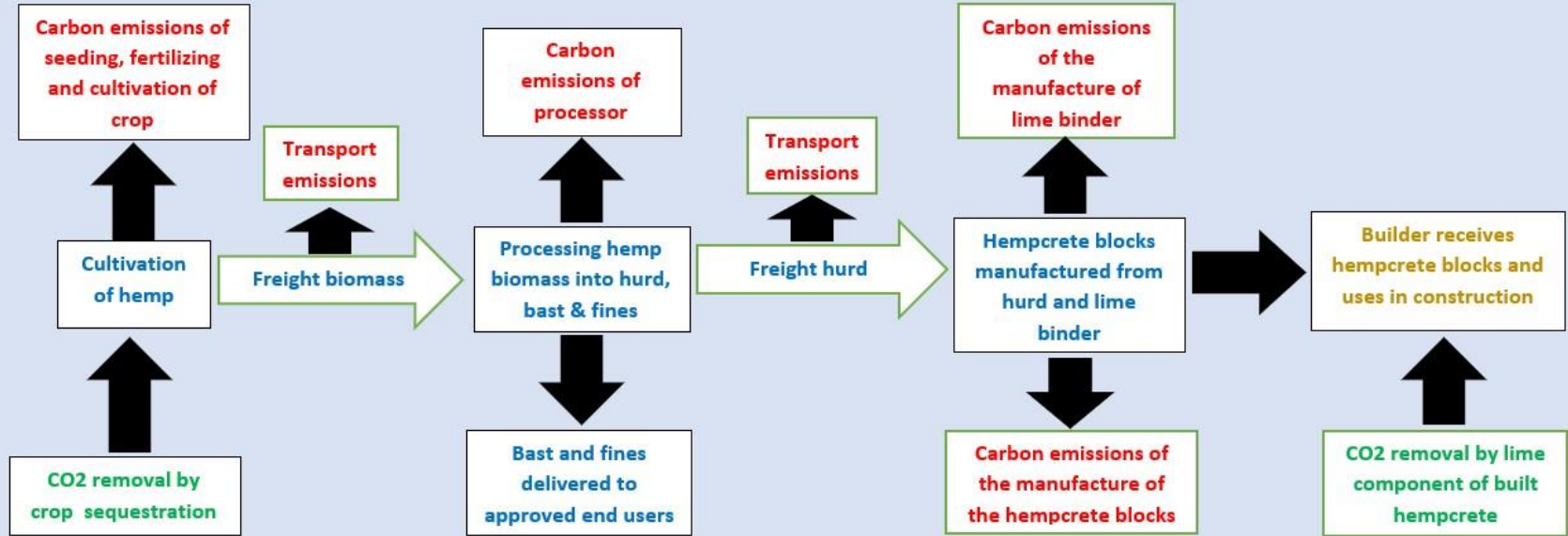
According to a Cambridge University researcher, a hectare of hemp can absorb between 8 – 15 tonnes of CO₂. In comparison, forests capture **2 – 6 tonnes** only depending on the type of trees, region, etc.

Hemp creates employment but needs a methodology. That is when I approached Verra.





Project boundary



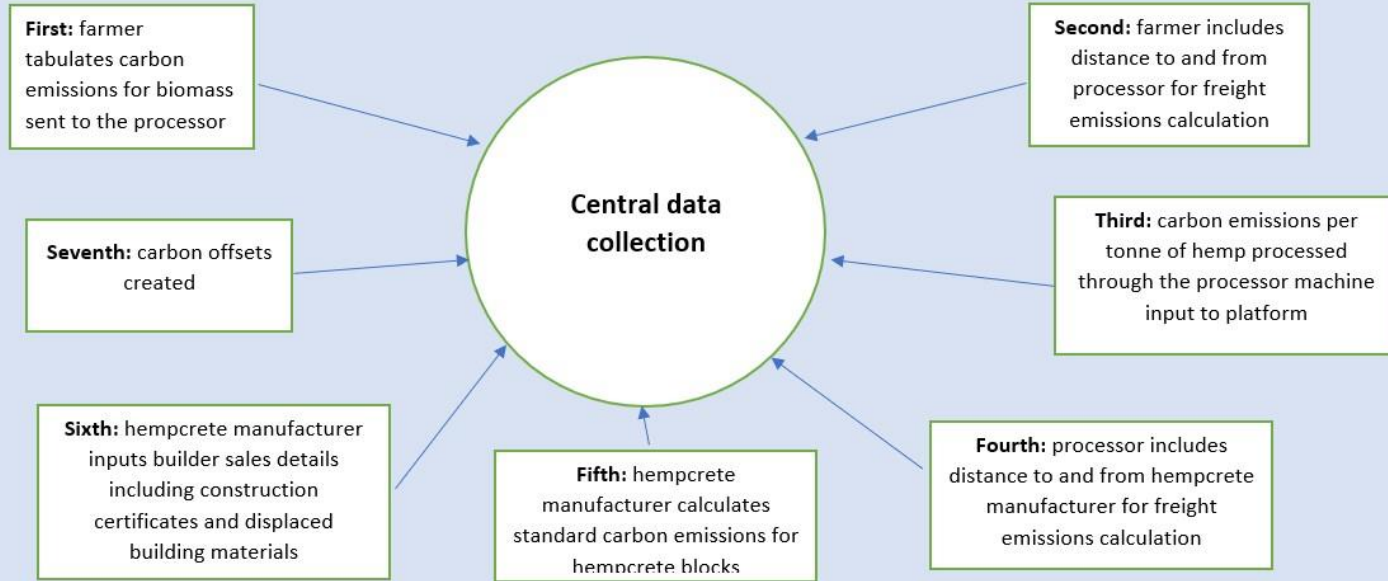
Blue: Input

Red: Source

Green: Removal

Brown: Reservoir

Data collection process - Data flow diagram



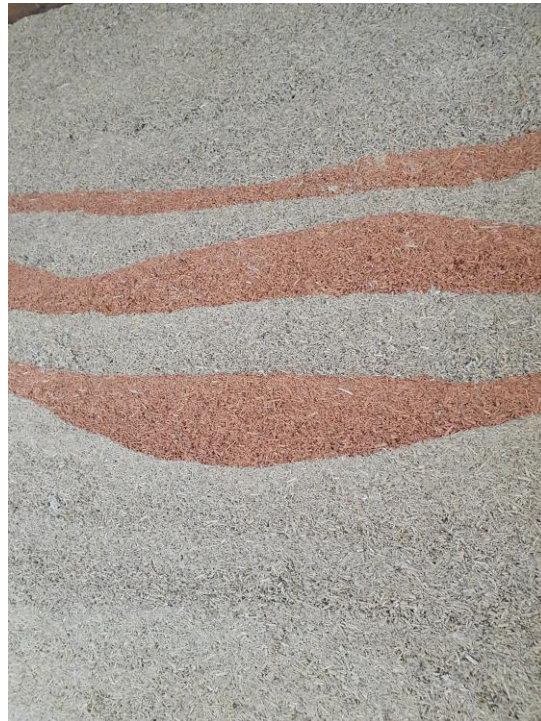
The business case

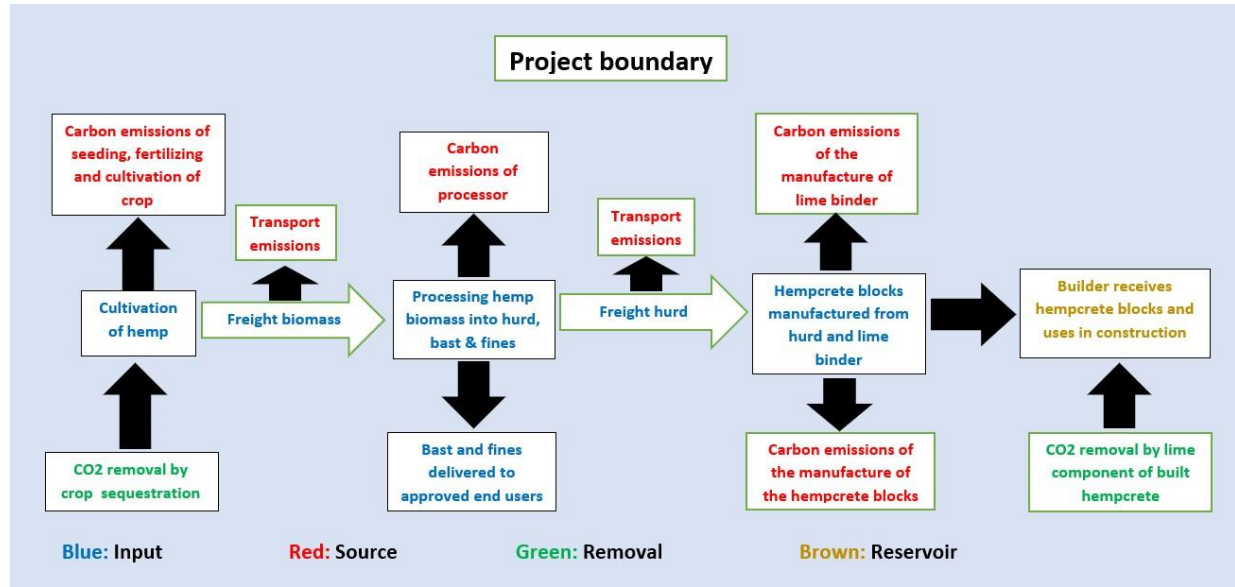
Removals cultivation and manufacture: 11t
Carbonation: 6t

Net removals: 7t
Carbonation: 6t
Total: 13t

Farmer: 7t x \$50 = \$350
7t x \$200 = \$1400

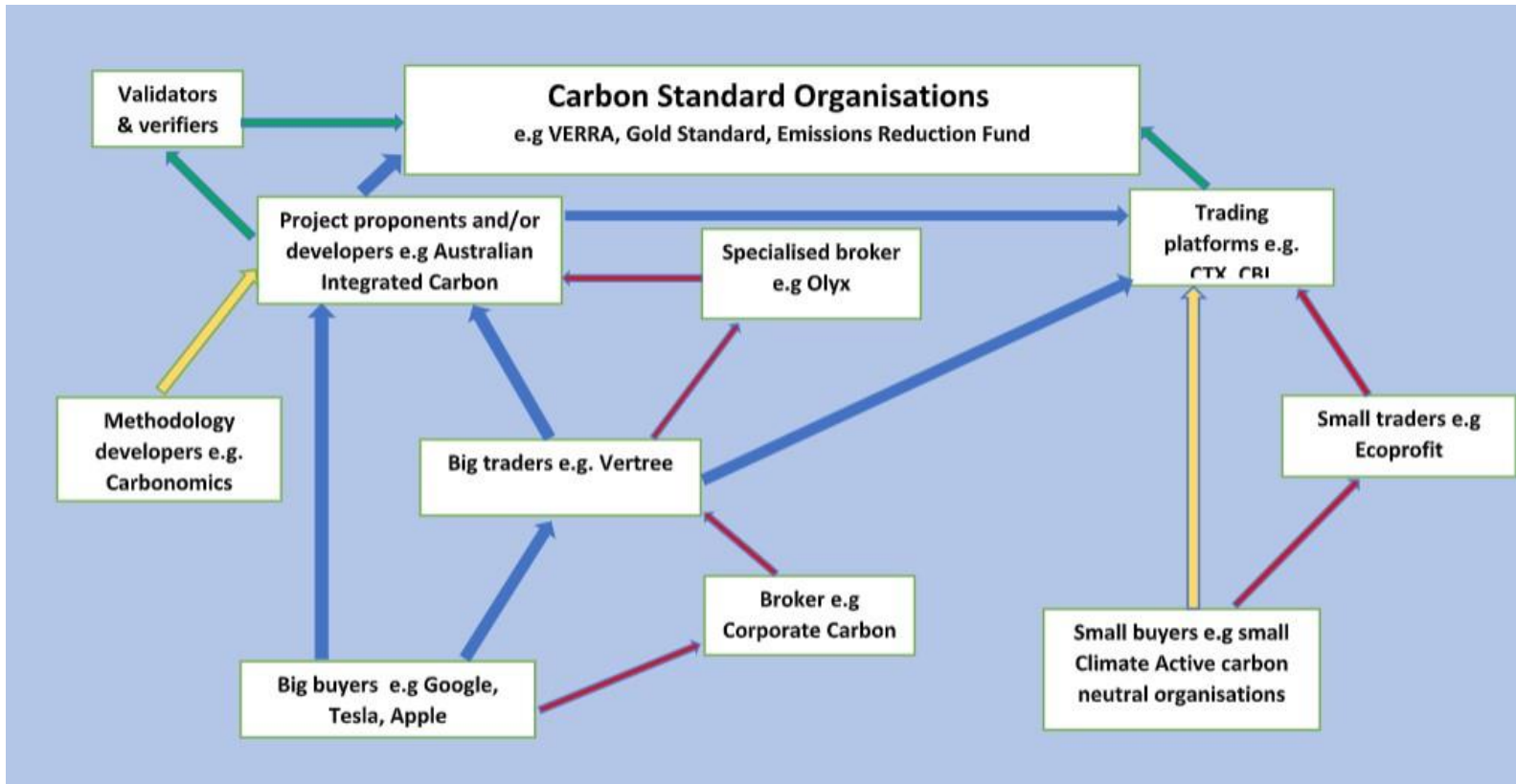
Tax effect to be considered





- Issues:
- Leakage
 - Crediting baseline

Standardization like density standardization
 Darren Christie has proposed an authority to oversee regulation
 in the industry.



Co benefits to note:

1. Improving the soil
1. Creating employment
2. Passive homes
3. SDGs



One hectare one home

Set scenario comparison of a 300 sq metre home between a brick veneer home compared to hempcrete home where hempcrete is incorporated between studs instead of bricks, insulation and gyprock.

1. Embedded carbon comparison
2. Cost comparison



THANKS!

Questions?

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