

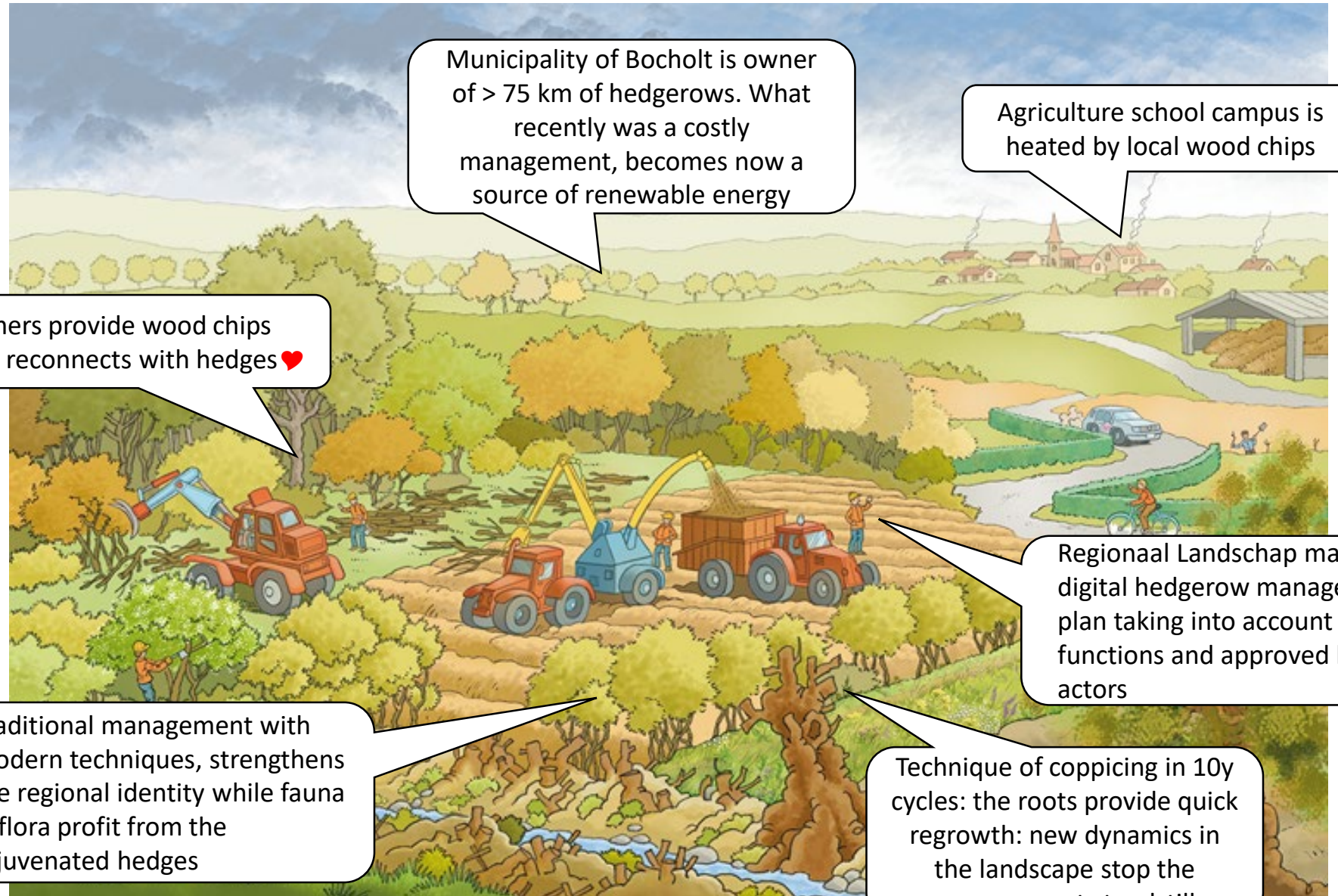
Belgian pilot project: Renewable energy saves biodiversity

The case of a local energy cooperative in Bocholt



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The case of a local energy cooperative in Bocholt



Municipality of Bocholt is owner of > 75 km of hedgerows. What recently was a costly management, becomes now a source of renewable energy

Agriculture school campus is heated by local wood chips

Local farmers provide wood chips -> Farmer reconnects with hedges ❤️

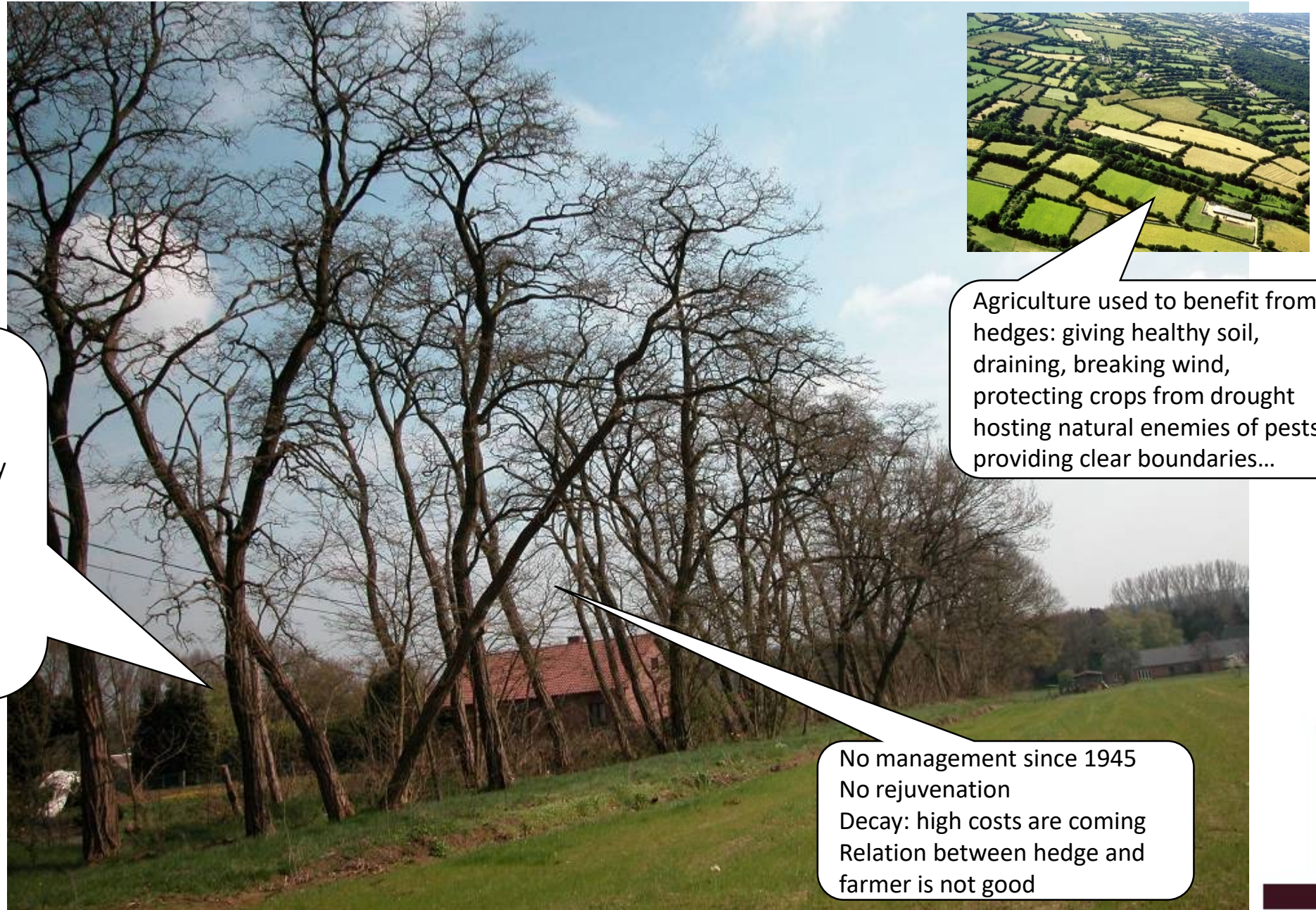
Regionaal Landschap makes a digital hedgerow management plan taking into account all functions and approved by all actors

Traditional management with modern techniques, strengthens the regional identity while fauna & flora profit from the rejuvenated hedges

Technique of coppicing in 10y cycles: the roots provide quick regrowth: new dynamics in the landscape stop the management standstill



Challenge: 'hedgerows' anno 2019 -> patients for the nursing home



Since 1945:

- Coal, oil fuel, gas... replace energy wood
- Chemical fertilizers + machinery
-> farmers detach from local ecosystems
- Economic value of hedgerows decreases
-> hedgerows 'disappear' or are neglected

Agriculture used to benefit from hedgerows: giving healthy soil, draining, breaking wind, protecting crops from drought, hosting natural enemies of pests, providing clear boundaries...

No management since 1945
No rejuvenation
Decay: high costs are coming
Relation between hedge and farmer is not good

Restarting hedgerow management = Keeping the balance between 5 functions

Renewable energy < 50 km's

No short rotation energy
crops on farmland
Rediscover benefits for
farming

food



fuel



feelgood



Look & feel,
regional identity



Positive effect on
fauna and flora

flower



fibre



Biomass for more
valuable applications

Solution: Can we turn the tide ?



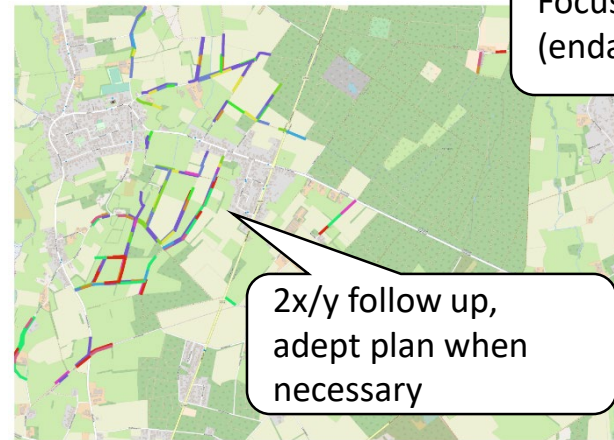
Yes we can ! Results after 2-3y



How did we do this ? We combine: **Green, Local, Social,** Economical

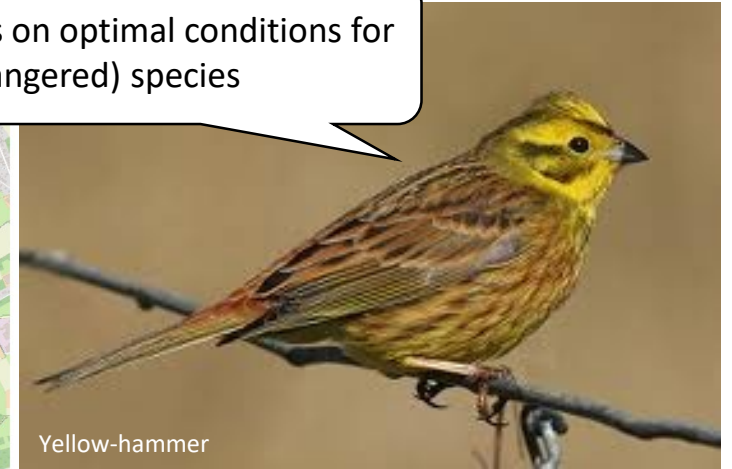


Planning future management with all local actors in dynamic plan



Focus on optimal conditions for (endangered) species

2x/y follow up, adept plan when necessary



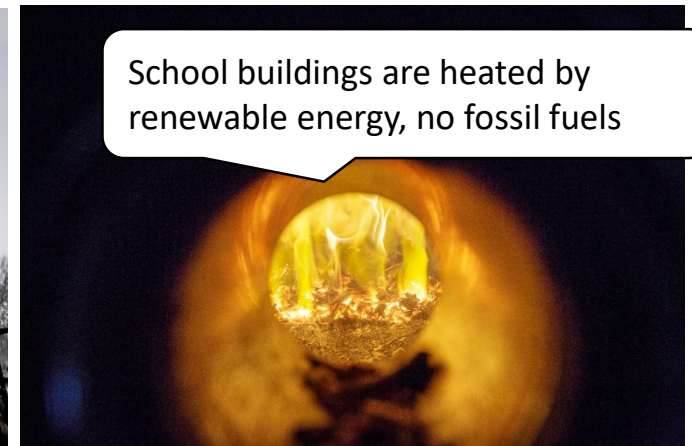
Yellow-hammer



Local farmers harvest and replant trees where commonly decided.



Farmers are paid by the school for the wood chips, so money for the heating stays in the local community

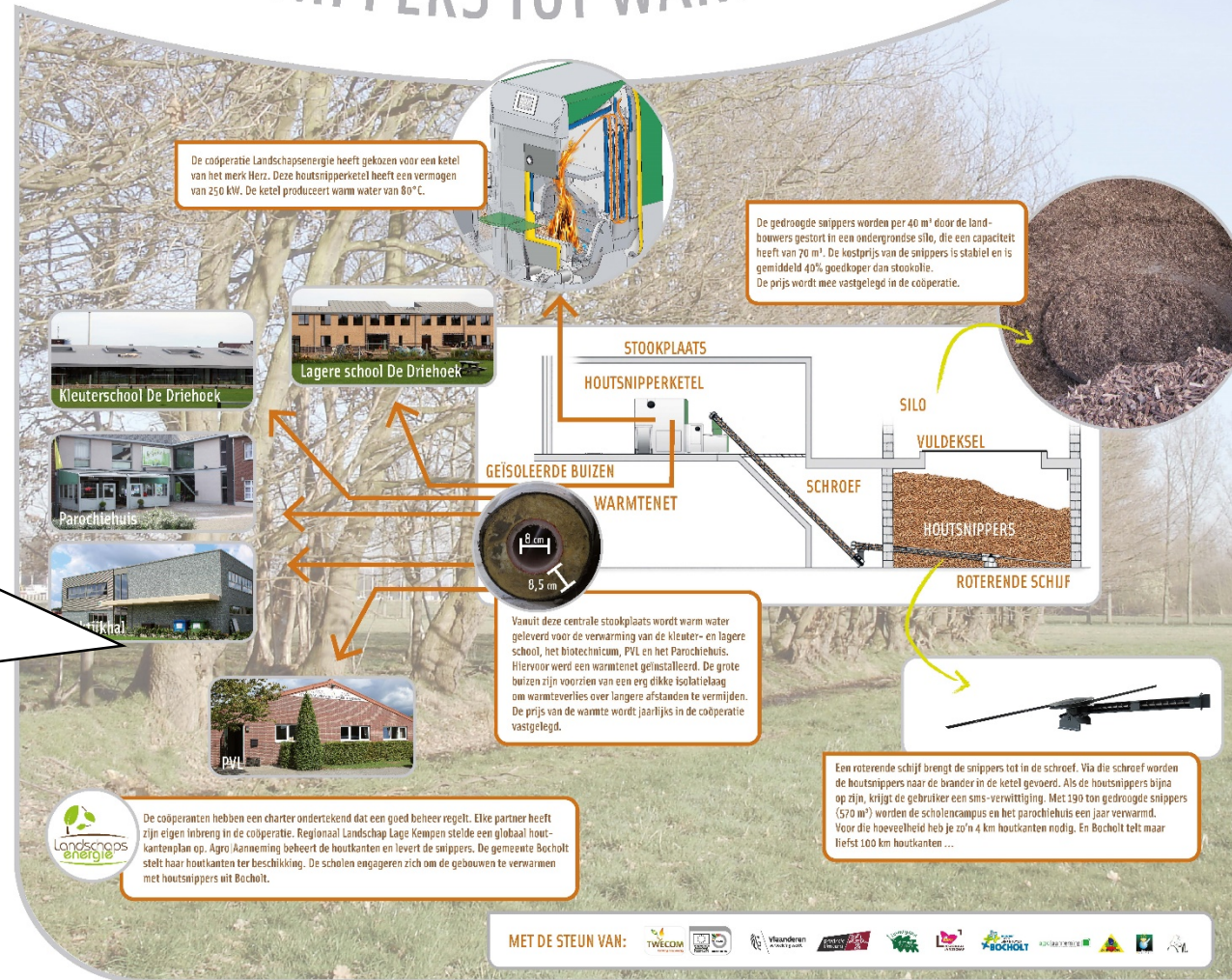


School buildings are heated by renewable energy, no fossil fuels

Heat network connects the 250 Kwh boiler to 5 units on the school campus



VAN SNIPPERS TOT WARMTE



BOILER and HEAT NETWORK are run by a local cooperative that includes all the local partners (the municipality Bocholt, the 4 schools, Regionaal Landschap Lage Kempen, farmers organisation ABC)



- lokale houtsnippers verwarmen gebouwen in de eigen gemeente -

Finding support for energy from the landscape

Investigative journalism: the schoolkids find out why it is not such a bad idea after all...



Numerous guided tours, discussion meetings, visits to similar boilers, leaflets, film, fb, municipal gazette...

The final piece of the puzzle: a central Biomass hub

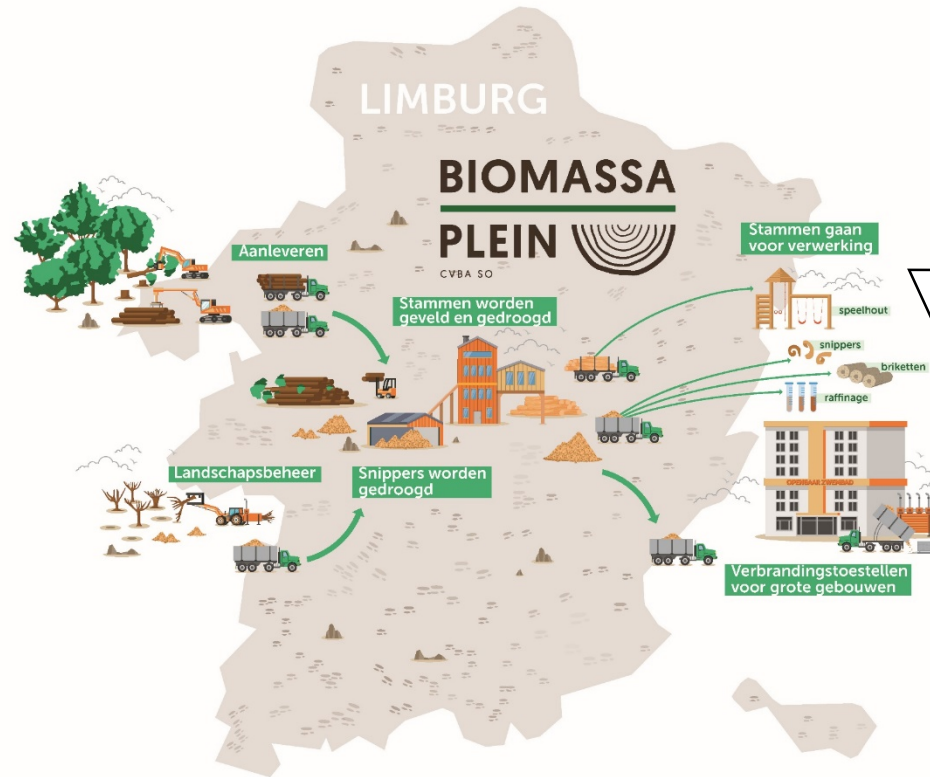


BIOMASSA

PLEIN



CVBA SO



1. Biomass is dried with waste heat from an incinerator
 2. Selection to highest possible value
- PRODUCTS NOW FEASIBLE**
- > woodchips for large high efficiency boilers with filtered emissions
 - > construction wood

FUTURE DEVELOPMENTS

- > cellulose
- > lignin
- > polymers
- > medicine

Giving **value** to local biomass is difficult due to a too small and fragmented scale...

But when we collect, process and market **centrally** we can turn biomass 'waste' into products

Transport < 50 km's CO2