



# Update on solid biomass in Wallonia

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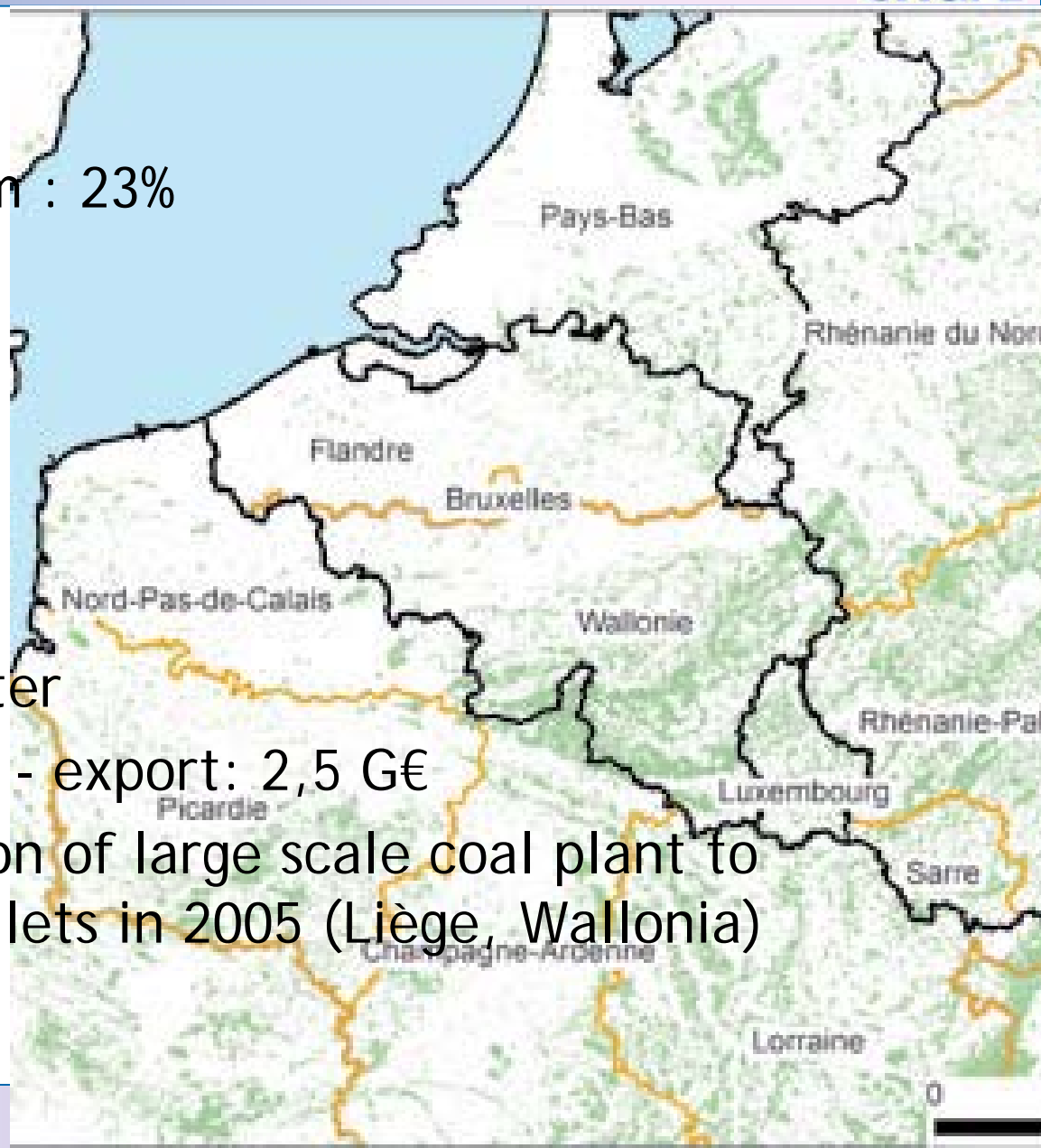
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# Highlights on Belgium & wood

- Wooded area Belgium : 23%
  - Wallonia: 33%

- Belgium = net importer
  - import: 3,3 G€ - export: 2,5 G€

- World's 1st conversion of large scale coal plant to sustainable wood pellets in 2005 (Liège, Wallonia)



$$E = e_{ec} + e_l + e_p + e_{td} + e_u - e_{sca} - e_{ccs} - e_{ccr} - e_{ee} + e_w$$

$E$  = total émissions résultant de l'utilisation du carburant,

$e_{ec}$  = extraction ou de la culture des matières premières,

$e_l$  = modifications des stocks de carbone dues à des changements dans l'affectation des sols, (if sustainable: 0)

$e_p$  = transformation,

$e_{td}$  = transport et distribution;

$e_u$  = usage, (0 for biomass)

$e_{sca}$  = accumulation du carbone dans les sols grâce à une meilleure gestion agricole,

$e_{ccs}$  = piégeage et au stockage géologique du carbone,

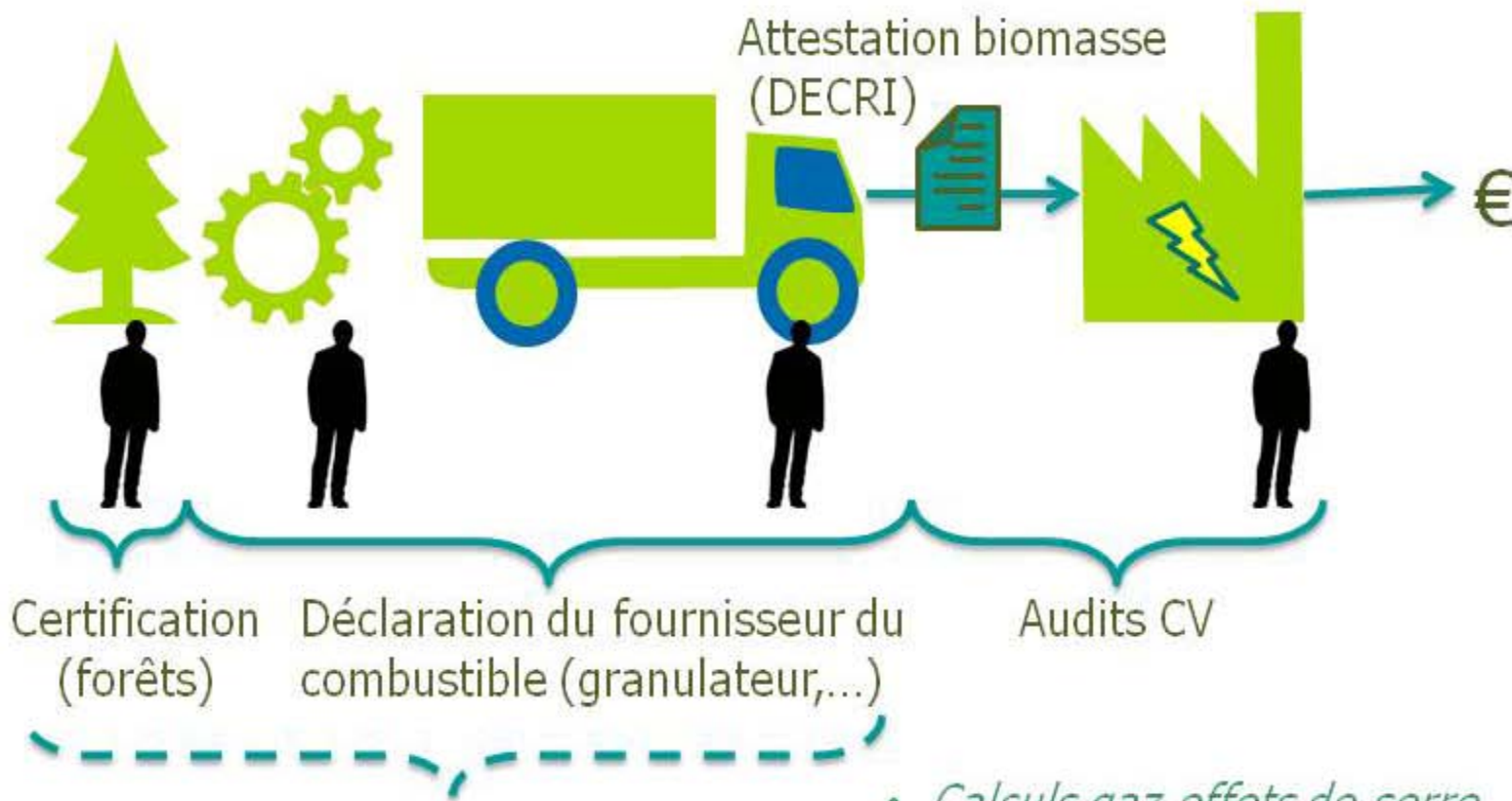
$e_{ccr}$  = piégeage et à la substitution du carbone, et

$e_{ee}$  = production excédentaire d'électricité dans le cadre de la cogénération.

$e_w$  = waste

**RÉDUCTION** =  $(E_F - E_B)/E_F \Rightarrow$  Fossile comparator is CCGT

# Verification process of sustainability



- *Calculs gaz effets de serre*
- *Énergie: Uniquement valeurs observées*
- *CO<sub>2</sub>: valeurs par défaut*
- *Learning by doing*



- Sustainable Forest Management
  - Ministerial Conference on the Protection of Forests in Europe : Helsinki resolution (1993) *“the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems”*.

- **2009/28/EC Directive: Sustainability criteria**
- For biofuels (transport) & bioliquids (electricity + heating)
- Guarantees real carbon savings and protects biodiversity.
- Only biofuels & bioliquids that comply can receive support or count towards national renewable energy targets.
- Criteria
  - Greenhouse gas savings of at least 35% in comparison to fossil fuels.
    - ◆ rises to 50% in 2017 / 60% in 2018 for new plants.
  - Not grown in areas converted from land with previously high carbon stock such as wetlands or forests
  - Not produced from raw materials obtained from land with high biodiversity such as primary forests or highly biodiverse grasslands.

# Comparing evidence of sustainability

Evidence	Sustainability	Traceability	CO2 emissions	Outlook	Note
Sustainable Forest management (FSC, PEFC)	✓ (1)	✓	✗	Future	Missing CO <sub>2</sub>
Sustainable Product (SBP)	! (2)	✓	✓	Past	Different requirements than SFM but acceptable for forest biomass as long as insufficient supply of certified wood
Ad hoc evidence	!(2)	!	!	Past	Case by case

- A voluntary cascade of usages
- A negative list of products excluded from electricity support
  - How to enforce?
- Reduced / controlled support for wood fuel in electricity
- Overview of supply plans
- Resource risk analysis



# Thank you for your attention



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