



Netherlands Enterprise Agency

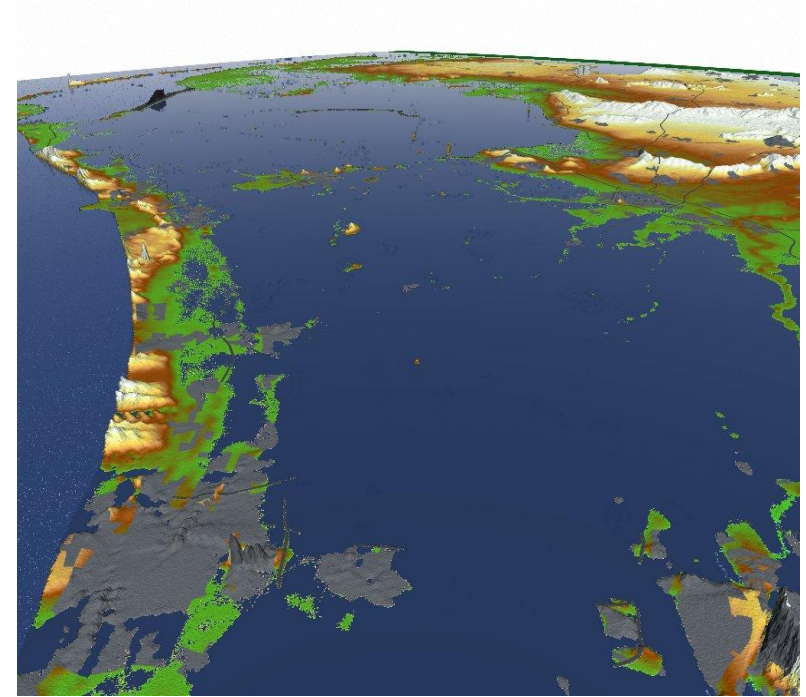
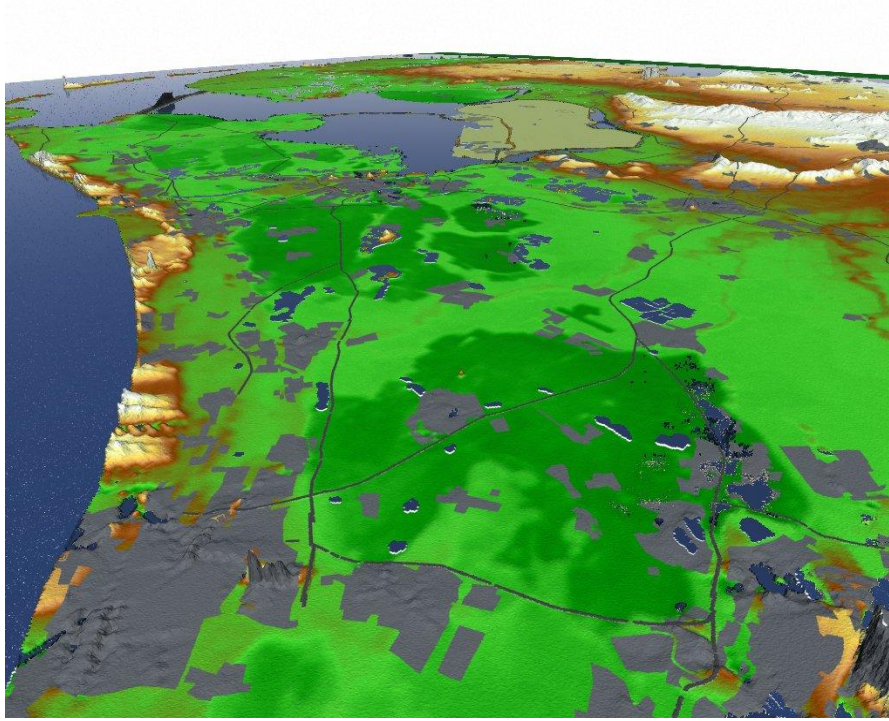
Biofuel Policies in the Netherlands

Ir. Kees W. Kwant





Netherlands now and in the year ???





EU 2020 Targets

- **Renewable Energy Directive**

- Minimum of 10% renewable energy in transport in 2020
- Electric, biofuels, biogas
- At least applicable to road transport, opt in for shipping/air
- Double counting 2nd generation biofuels (waste/residues/cellulosic)

- **Fuel Quality Directive**

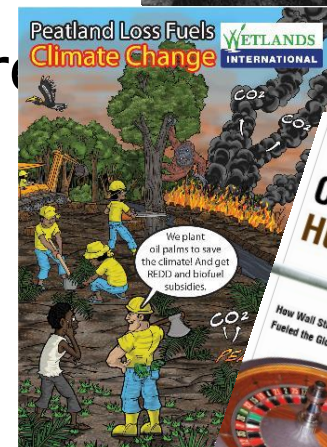
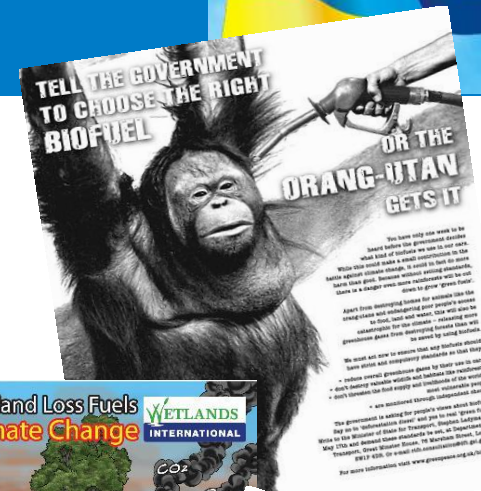
- Life Cycle Analysis, CO₂-reduction of 6% compared to 2010
- Looks at the whole chain of production and use of fuels
- No double counting 2nd generation biofuels





Concerns about biofuels

- Competition with food (price spikes 2007/2008)
- Land use change (direct and indirect)
- Loss of biodiversity
- Loss of GHG sinks
- Other sustainability effects:
 - Locally: soil, water, air
 - Social (poverty, land rights)





EU Sustainability Requirements

- **For biofuels and other bio liquids for energy purposes:**
 - GHG-emissions: \geq 35% better than fossil equivalent, 2017 50% existing and 60% new installations
 - Biodiversity: no go areas
 - Carbon sinks: preservation of status of areas
 - EU: cross compliance requirements (agriculture and nature protection)
 - Reporting requirements: food security and food prices, ILO, land security
- For waste, residues and solid biomass:
 - Waste and residues (not from agriculture, aquaculture, fishery, forest): only GHG-emission requirement
 - For solid biomass for energy possibility of national sustainability requirements





Voluntary certification schemes

- Schemes being developed by consortia / roundtables

- **Bonsucro (formerly BSI, sugarcane) –**

- www.bettersugarcane.com

- **ISCC – www.iscc-system.org**

- NTA 8080/8081 – www.sustainable-biomass.org

- **REDcert – www.redcert.org**

- **RSB – www.rsb.epfl.ch**

- RSPO (palm oil) – www.rspo.org

- **RTRS (soy) – www.responsiblesoy.org**



ROUNDTABLE ON SUSTAINABLE BIOFUELS

- Schemes being developed by companies

- **Abengoa (RED Bioenergy Sustainability Assurance)**

- **Greenenergy: www.greenenergy.com**

- **French stakeholders – 2BSvs**

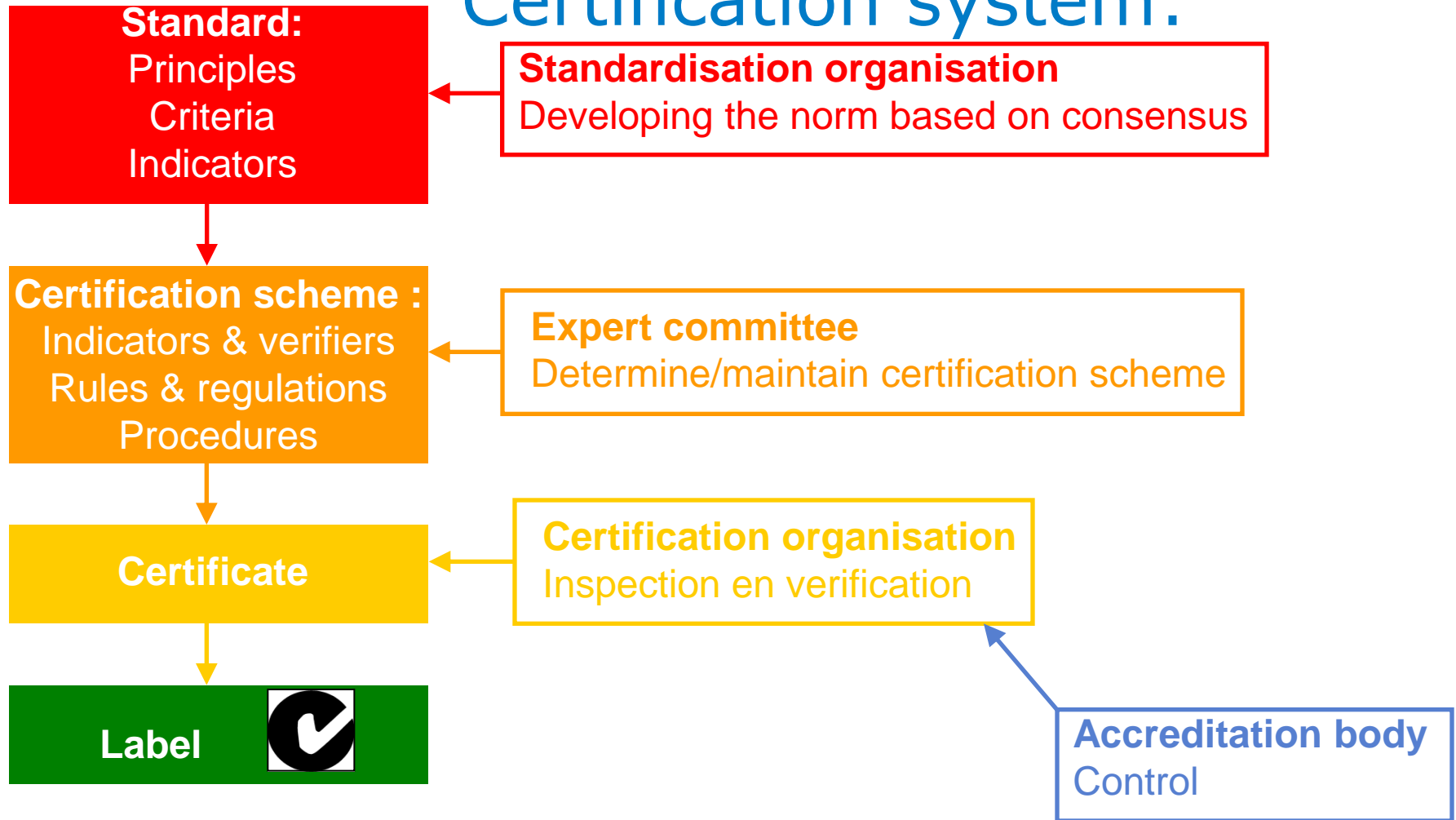
- Nesté Oil

- Red Tractor – <http://www.nfuonline.com/News/Red-Tractor-scheme-proposed-for-biofuels/>

- SEKAB/UNICA – www.sustainableethanolinitiative.com

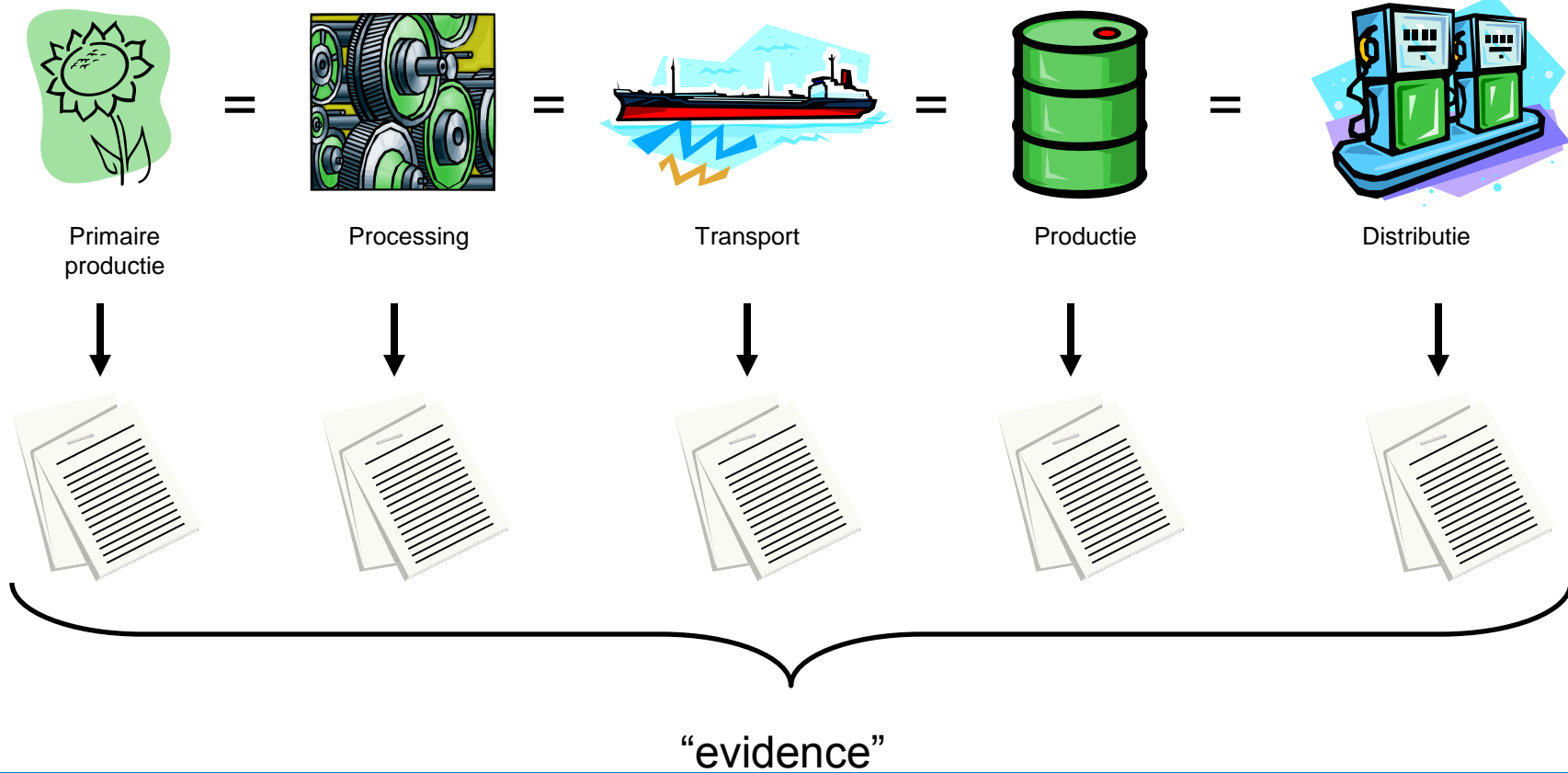


Certification system:





Chain of Custody

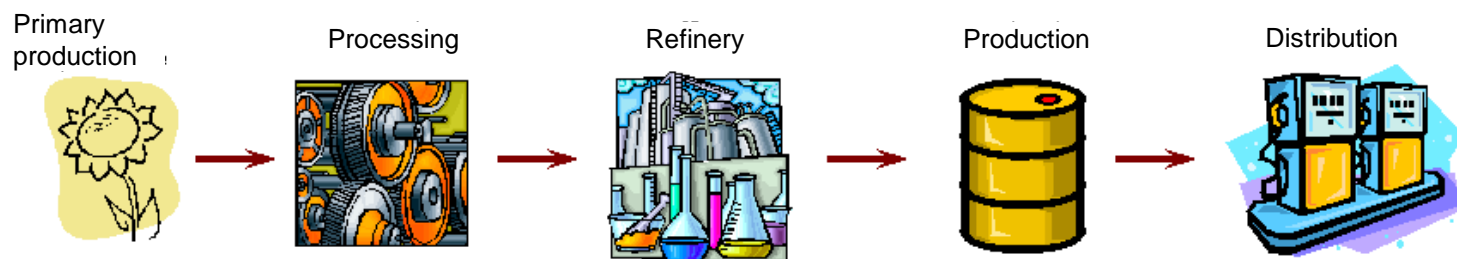
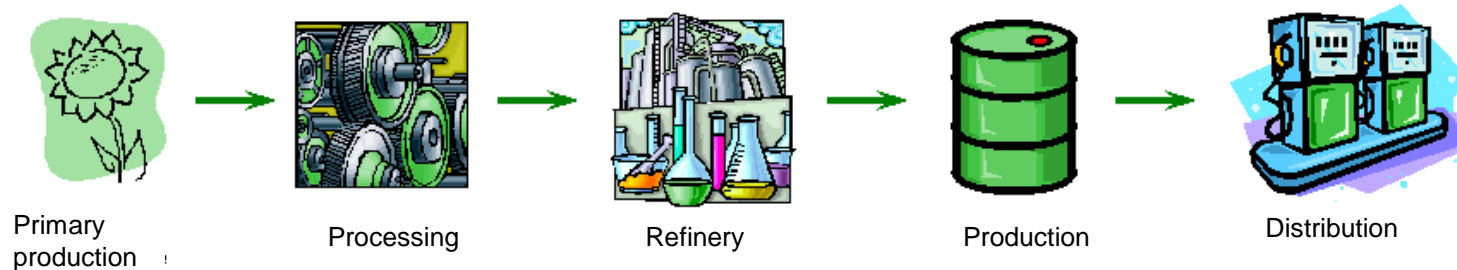




Segregation: Chain of custody

- Segregation (= 100% mass balance)

Certified chain



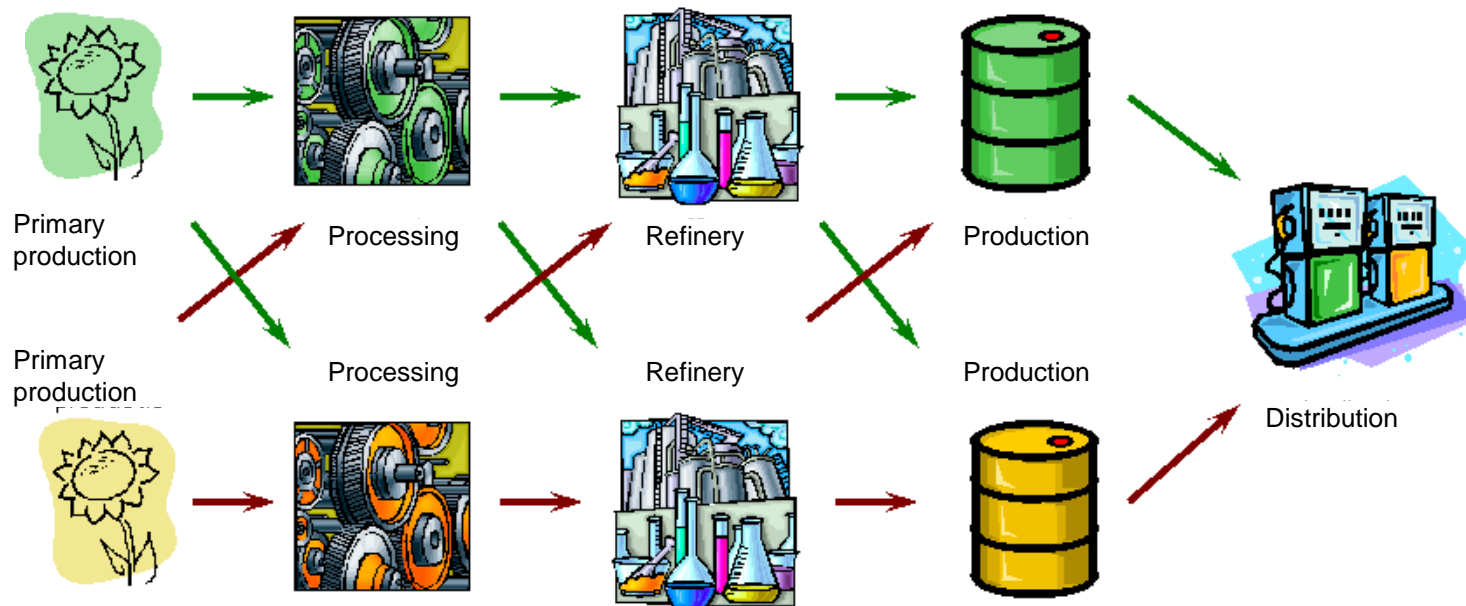
Regular (uncertified) chain



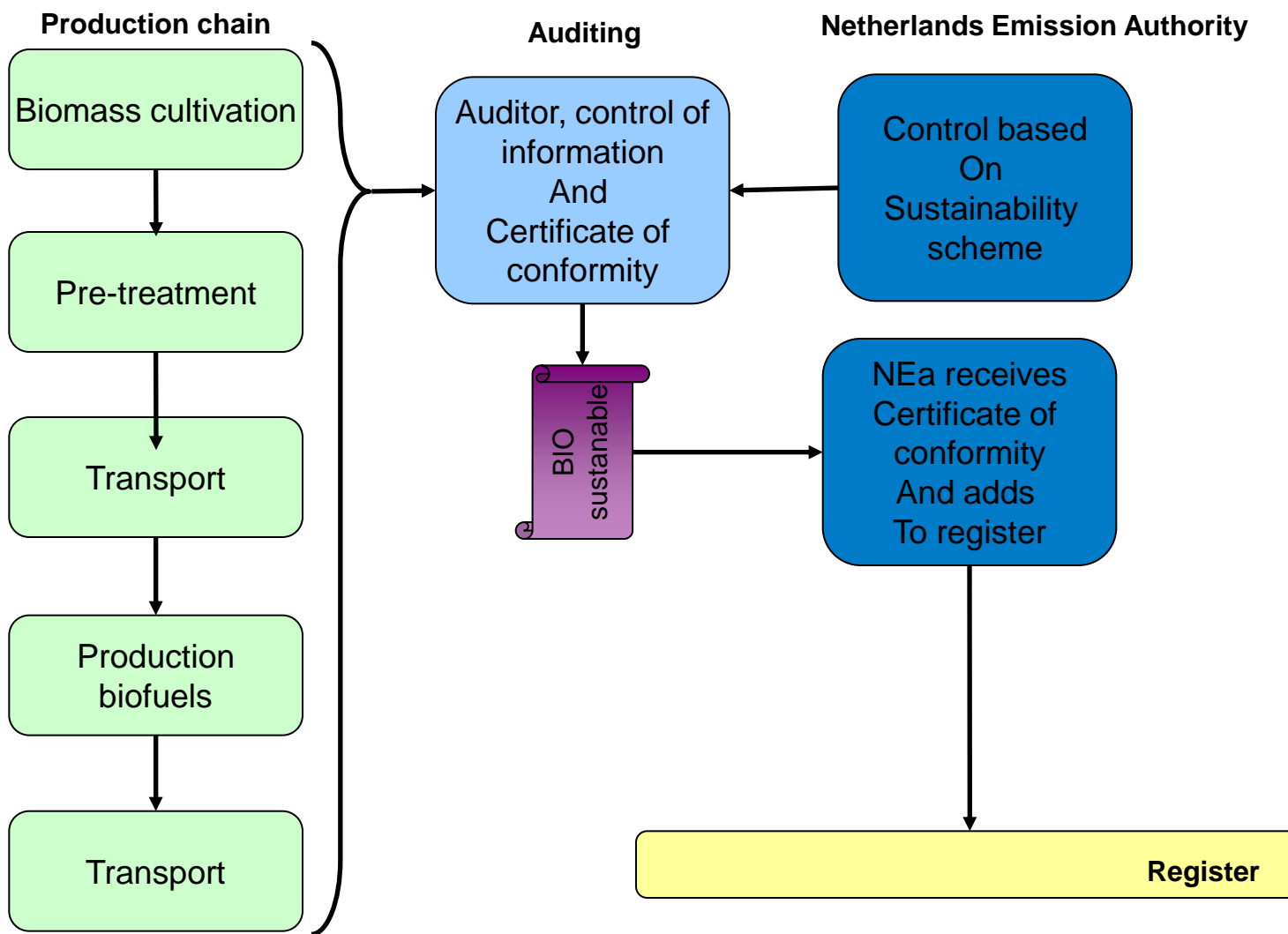
Mass Balance: Chain of custody

- Mass balance (required by RED, 2009/28/EC)

Certified chain



Regular (uncertified) chain





Practical implementation

- Fuel suppliers have an obligation (e.g. 2014 5,5% and 2015 6,25%) written in Environmental Law, article 9.7
- Dutch Emission Authority (NEA) is registering and controlling the Dutch biofuel market
- Sustainability must be shown by an adopted voluntary certification system incl. independent audit
 - We have a mass balance system.
 - 25% carry over to next year
- NEA controls and in case obligation is not met, or fraud is expected the prosecutor is informed and action taken
- Taxes on biofuels are the same as for fossil fuels (about 150%_ Consumer pays 1.3 €/liter diesels in NL)



New register from 2015 on

- A fuel supplier in the chain of custody notice renewable fuel at NEA
 - Book into register
 - Pure or blend
- Gets renewable energy tickets HBE's (Biotickets) on account in register
 - Amount of energy may only traded once.
 - Fuel is for NL transport market, not allowed to export
 - HBE's can be used to fulfill target and show compliance to sustainability criteria or may be traded between parties with over- and under output 1 HBE = 1GJ



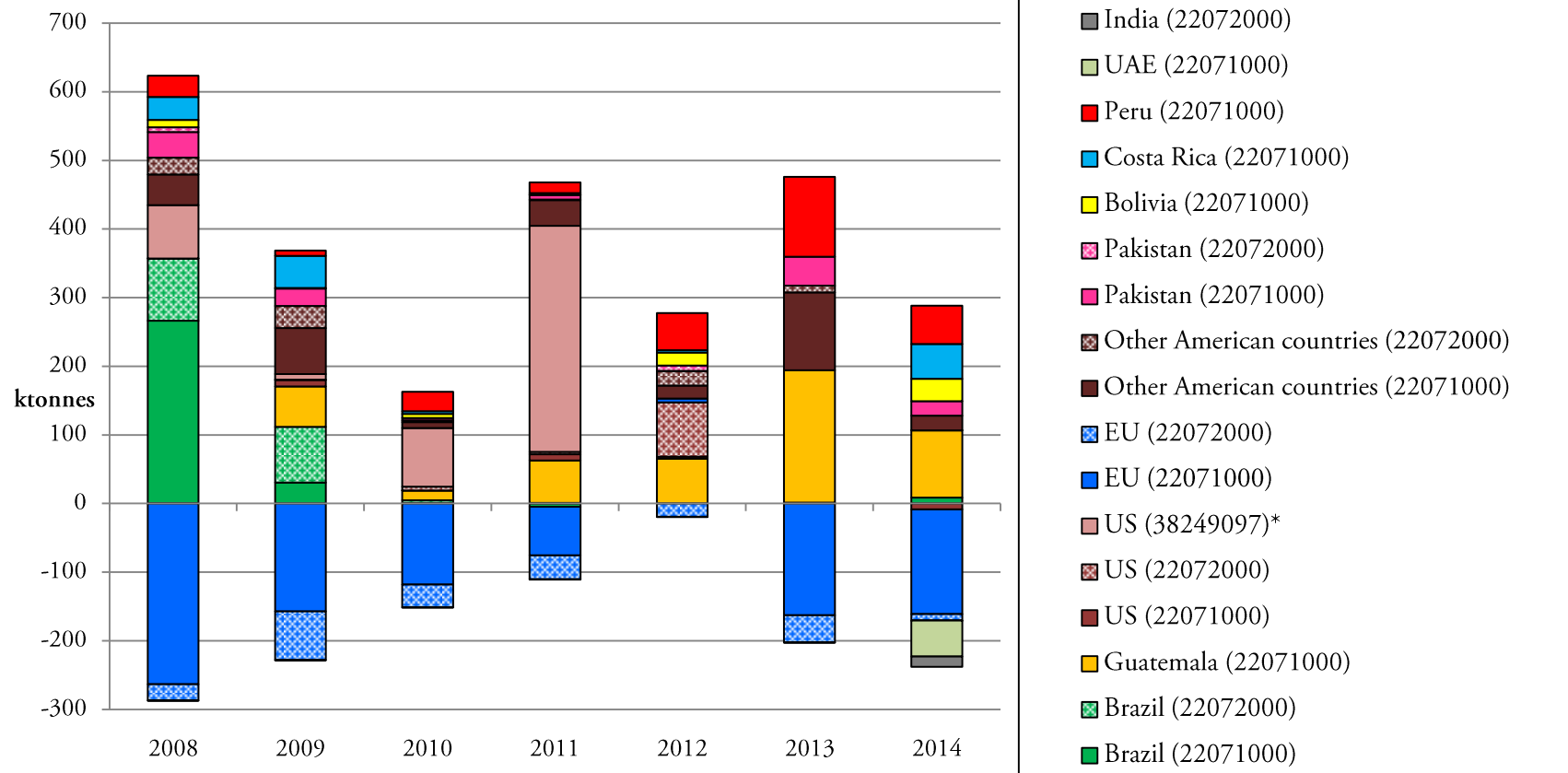


Biofuel volumes

- Tax codes:
 - undenatured alcohol: CN 22071000
 - Denatured ethanol: CN 22072000
 - > Not drinkable; spiritus, blended with methanol/ petrol
 - Chemical compound: CN 38249097
- Trading with different countries,
 - Different tax regimes over time

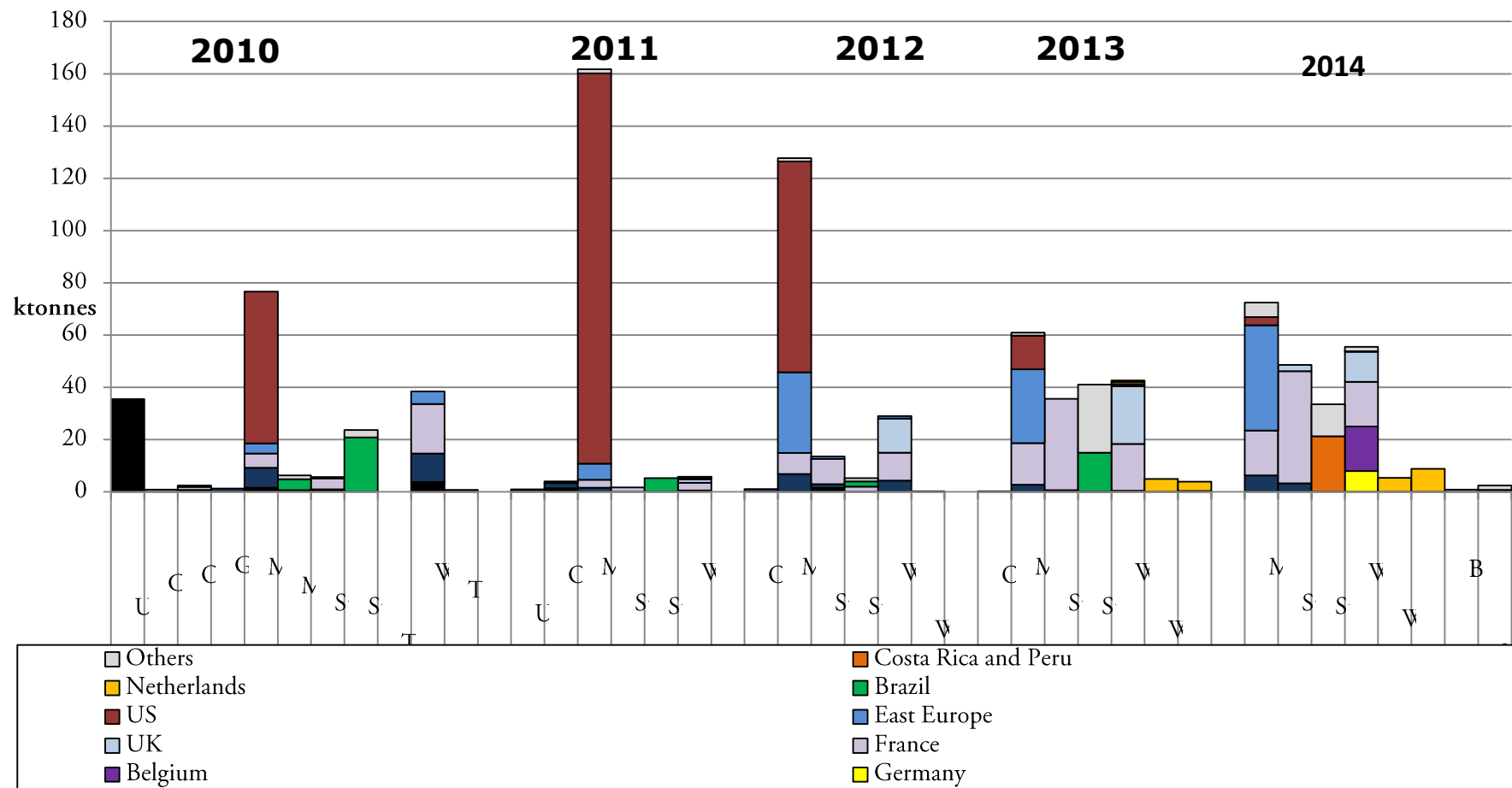


Ethanol trade to/from different countries





Agricultural source of bioethanol use in NL





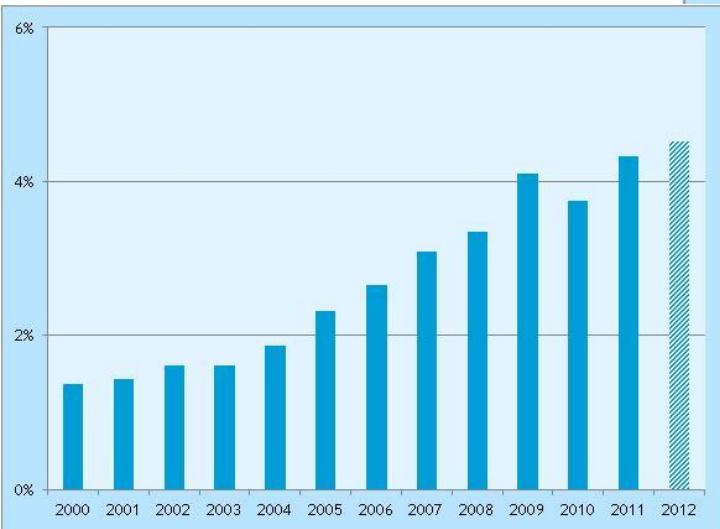
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**Biofuels contribute to
Renewable Energy
Obligation RED (COM
2009/28)**





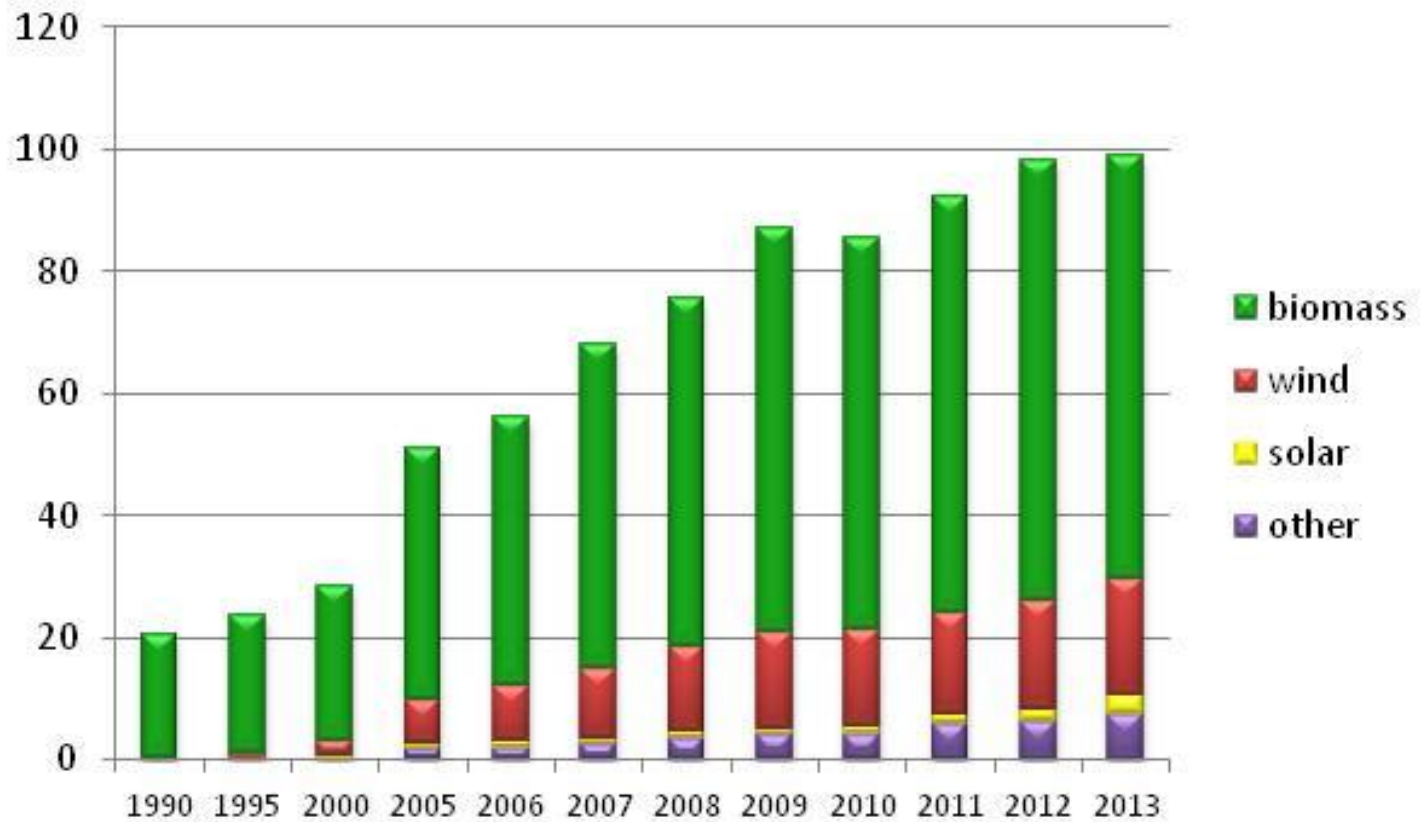
RE targets: RED: 2020: 14%





Results: About 70% realised with Bioenergy

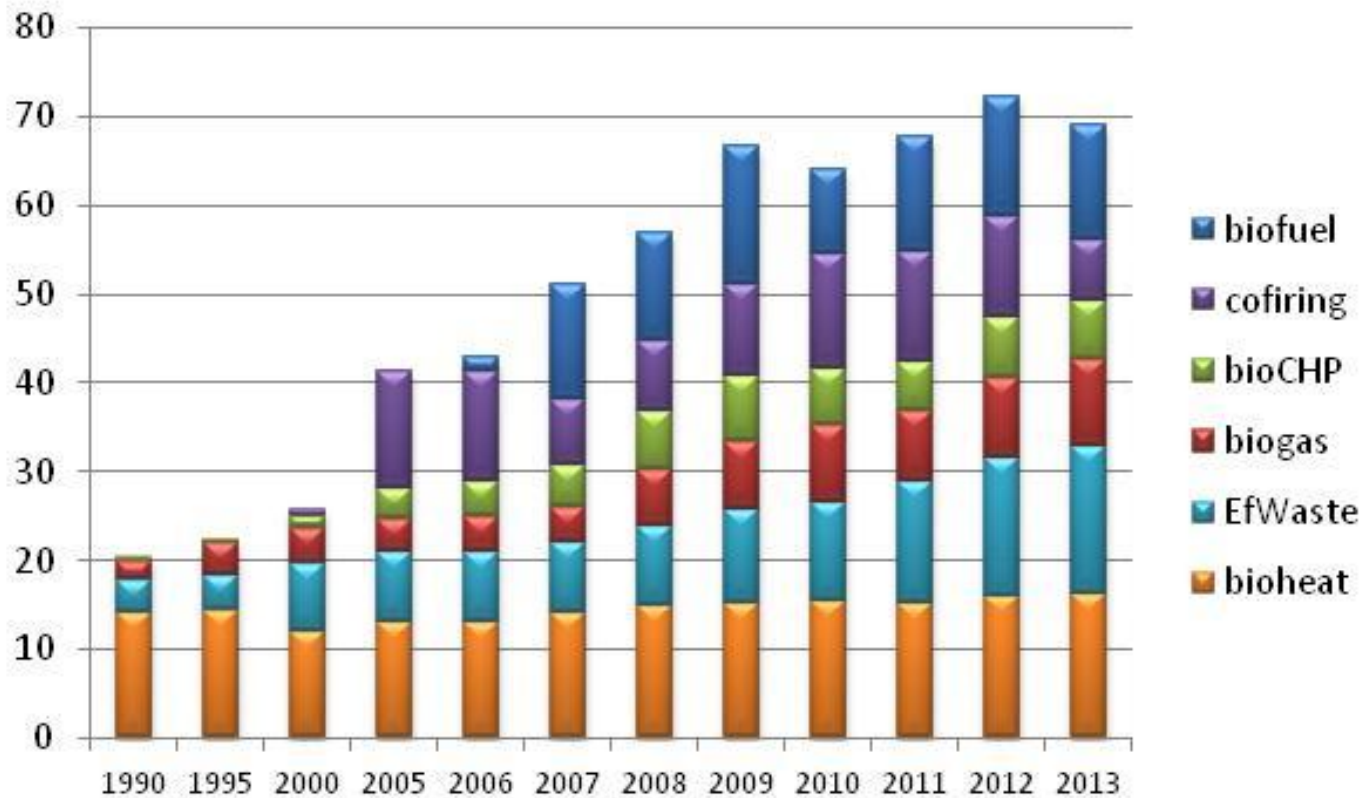
- PJ





Bioenergy implementation Netherlands

- PJ





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Conclusion





Conclusion

- Biofuels part of Renewable Energy and part of Biobased Economy
- Integration: Energy, Waste, Agriculture, Chemical sectors
- Biobased policies need to take an integrating approach