

# A life-cycle approach in EU energy law using biomass & biofuels as an example

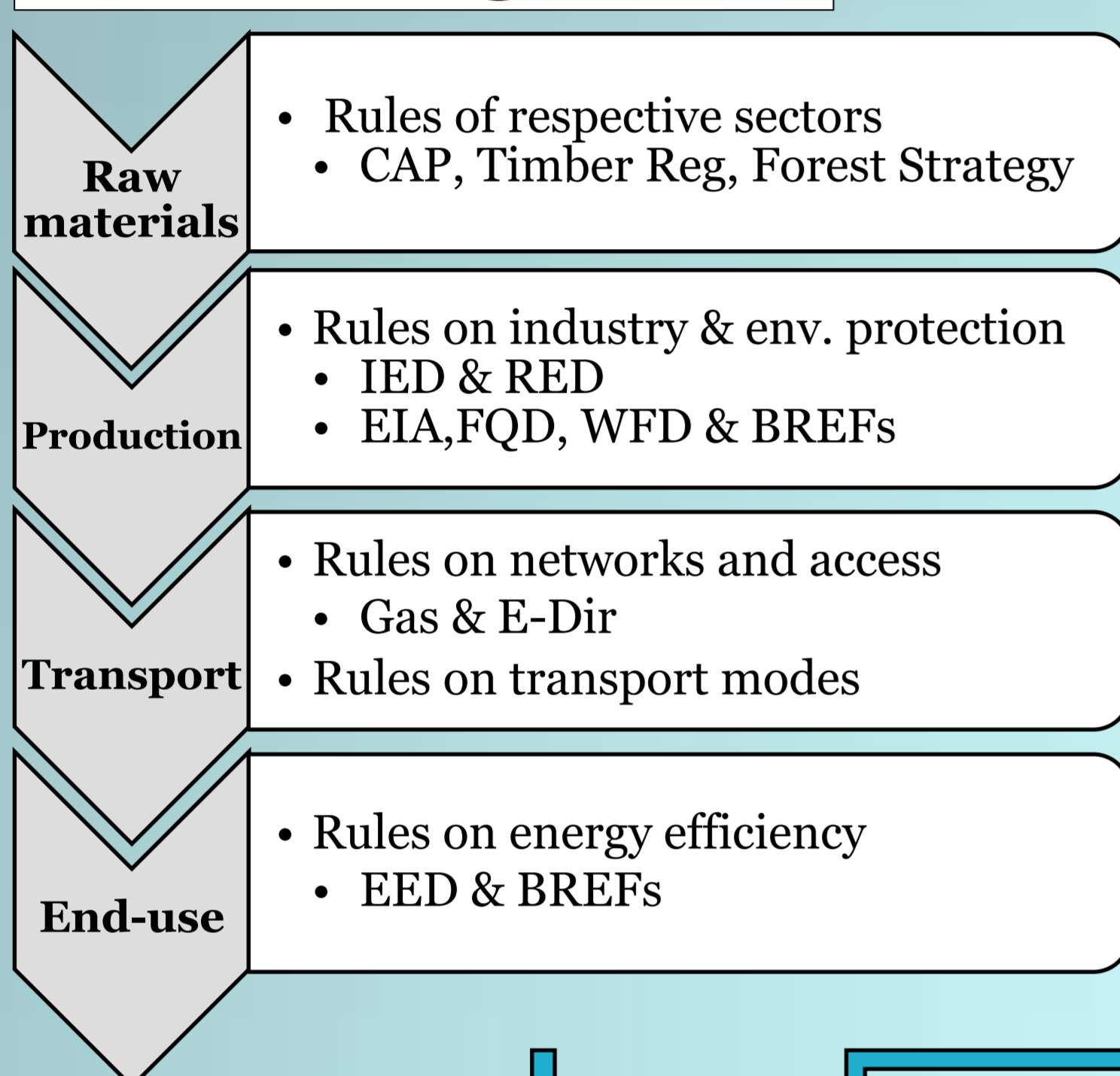
## Current EU rules

- **Energy Law:** overall aim is that energy supply must be secure, sustainable & affordable
- **Sustainability:** 20-20-20 targets for 2020
  - \* 20% energy efficiency (esp. buildings & appliances)
  - \* 20% CO2 reduction (through ETS)
  - \* 20% renewable energy (RE)
    - \* many RE sources, mostly used is biomass
    - \* 10% RE in transport

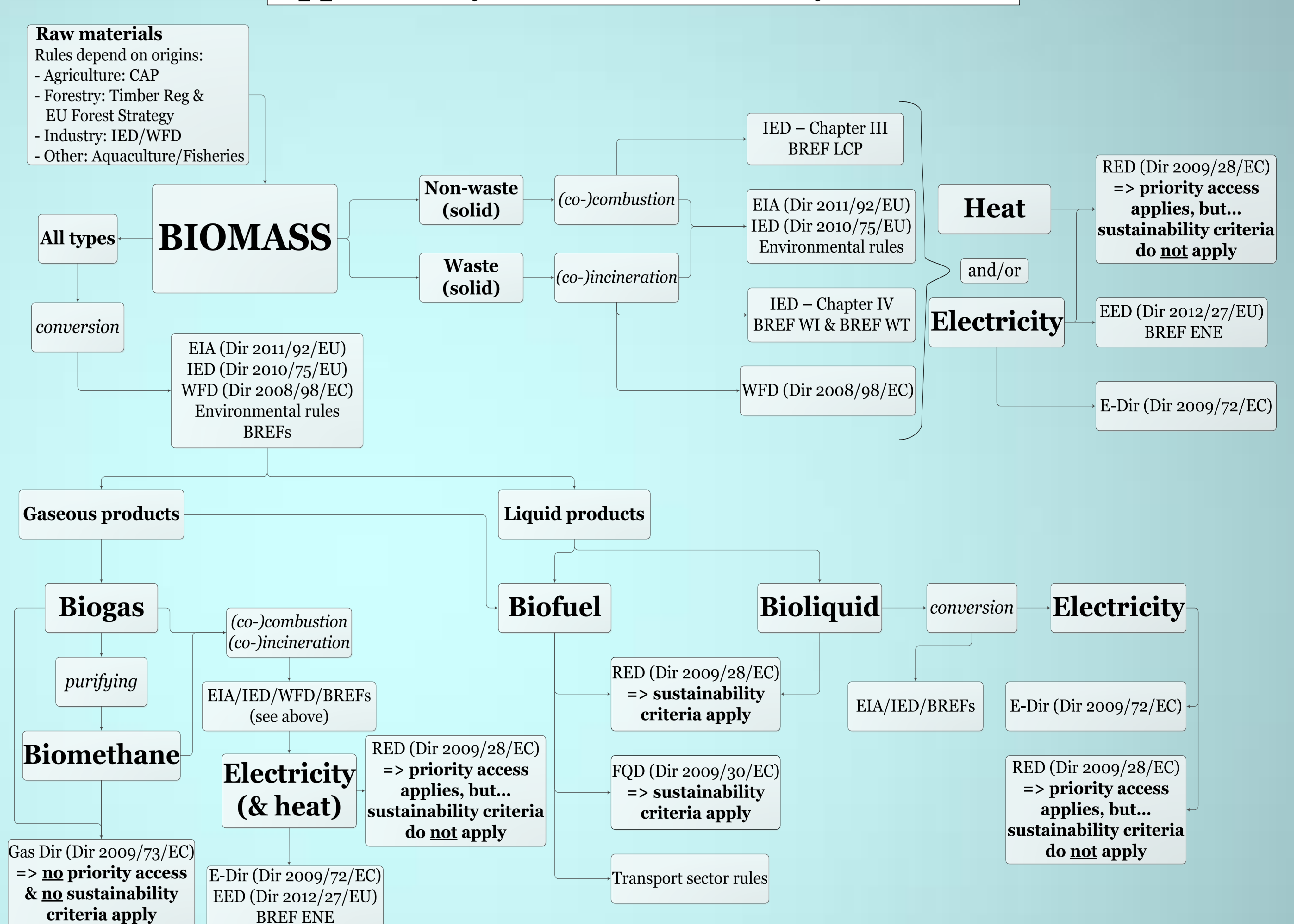
## Biofuels

- main source for RE in transport
- made from biomass
- first generation fuels: max. 7% (formerly 10%)
- advanced fuels: min. 0.5%
- **Sustainability criteria:**
  - \* apply to crops grown inside & outside EU
  - \* min. 60% GHG reduction
  - \* not from vulnerable areas, i.e. high biodiversity, high carbon stock, peatland

## Biomass regulation



## Applicability of the sustainability criteria

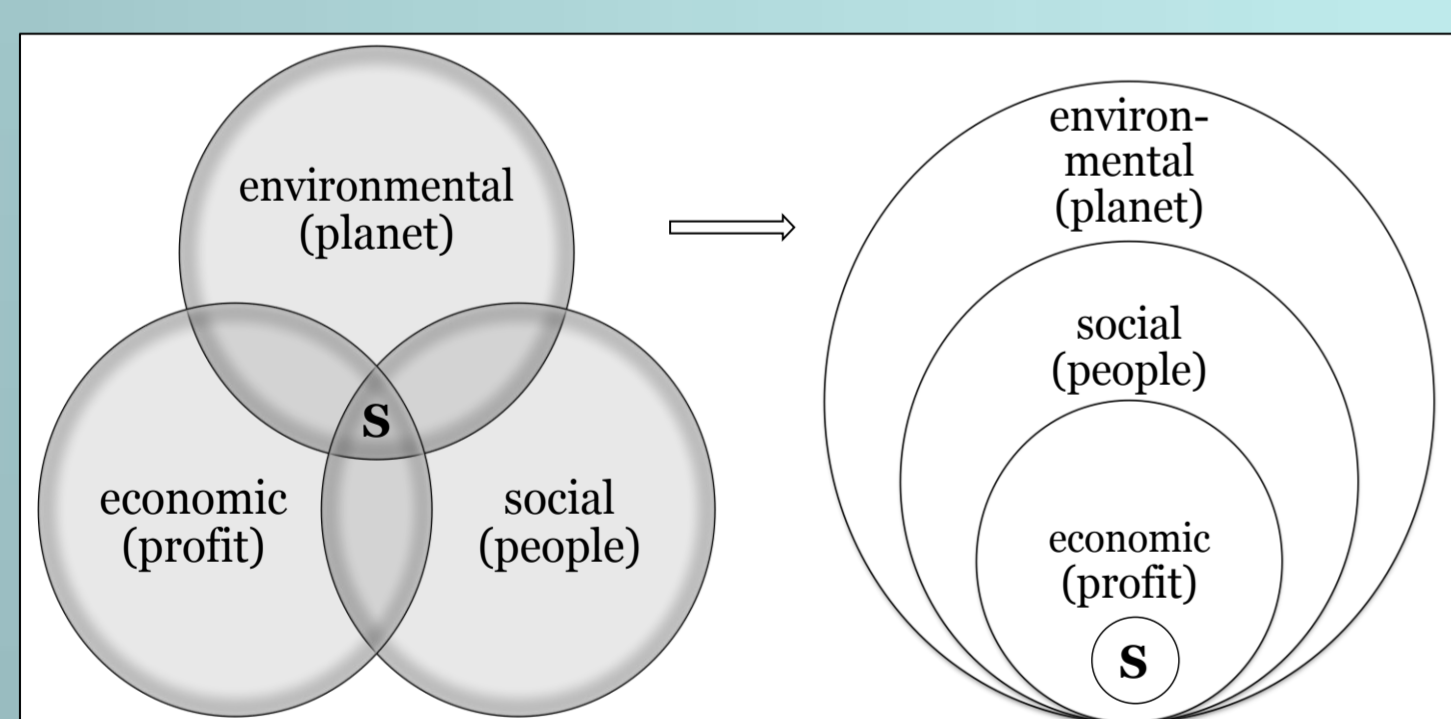


RA Giljam, 'Towards a Holistic Approach in EU Biomass Regulation' (2016) 28(1) J Env L (OUP) *advance access* 9.12.2015 doi: 10.1093/jel/eqv025

## Results in

- fragmented approach
- inconsistent application of sustainability criteria

## Change is needed



Essentially: from balancing to hierarchy, as the environment sustains all

## New approach:

### Ecological governance

- developed by Olivia Woolley (CUP 2014)
- aim: to continuously reduce the cumulative stresses from human activities on ecosystems to enhance their functionality and resilience
- environmental prevalence and normative precaution in all activities
- guiding principles: reducing consumption & impacts, substitution and sunseting

## Proposed means:

### Expand the use of Best Available Techniques (BAT)

- internally: broaden the scope
  - consider more elements in determining BAT
  - \* e.g. context, necessity & indirect effects
  - not only emerging techniques, but also subsiding techniques
- externally: apply outside original scope
  - holistic approach: BAT throughout life cycle
  - \* e.g. also in agriculture and forestry

## Challenges

- uncertainty
- extraterritoriality
- political will
- ...

