

# Sustainable feedstocks for commercializing BTL

BTLtec 2008

Roundtable forum of BTL players

Gothenburg  
October 13, 2008

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**EU sustainability  
criteria in making  
French presidency  
compromise proposal on  
Sept 10, 2008**

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## 1st hearing procedure

European Commission

European Parliament  
ITRE committee responsible

European Council  
COREPER task force

European Parliament

Proposal in Jan 2008

All committee decisions completed in  
September, 347 pages in ITRE  
decision

Task force proposal in September for  
negotiation with European  
Parliament

Plenary vote on December 16, 2008



# Sustainability criteria for biofuels and other bioliquids

( Cuts from Presidency compromise proposal)

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Biofuels and other bioliquids shall be taken into account for the purposes listed under points (a), (b) and (c) only if they fulfil the sustainability criteria set out in paragraphs 2 to 5:

- (a) measuring compliance with the requirements of this Directive concerning national targets;
- (b) measuring compliance with renewable energy obligations;
- (c) eligibility for financial support for the consumption of biofuels and other bioliquids.

However, biofuels and bioliquids produced from waste and residues, other than agricultural and forestry residues, need only fulfil the sustainability criterion set out in paragraph 2 in order to be taken into account for the purposes listed under points (a), (b) and (c).



2. The greenhouse gas emission saving from the use of biofuels and other bioliquids taken into account for the purposes referred to in paragraph 1 of this Article shall be 35% (ITRE committee 45%).

With effect from 2017, the greenhouse gas emission saving from the use of biofuels and other bioliquids taken into account for the purposes referred to in paragraph 1 of this Article shall be 50% (ITRE committee from 2015 60%).

3. Not be made from raw material obtained from land with high biodiversity value, that is to say land that had one of the following statuses in or after January 2008, whether or not the land still has this status:

(a) primary forest and other wooded land, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed;

(b) (i) areas designated by law or by the relevant competent authority for nature protection purposes; or

(ii) areas for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the second subparagraph of Article 16(4);



- (c) (i) highly biodiverse natural grassland, that is to say grassland that would remain grassland in the absence of human intervention and which is species-rich, not fertilised and not degraded; or
- (ii) highly biodiverse non natural grassland, that is to say grassland that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded, unless evidence is provided that the harvesting of the raw material is necessary to preserve its grassland status.

4. Biofuels and other bioliquids taken into account for the purposes referred to in paragraph 1 shall not be made from raw material obtained from land with high carbon stock, that is to say land that had one of the following statuses in January 2008 and that no longer has this status:

- (a) wetlands, that is to say land that is covered with or saturated by water permanently or for a significant part of the year, including pristine peatland;
- (b) continuously forested areas, that is to say land spanning more than 1 hectare with trees higher than 5 metres and a canopy cover of more than 30%, or trees able to reach these thresholds in situ.

This paragraph shall not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008.



5. Agricultural raw materials cultivated in the Community shall be obtained in accordance with the requirements and standards under the provisions referred to under the heading "Environment" in Part A of Annex III to Council Regulation (EC) No 1782/2003 and in point 9 of Annex III to that Regulation and in accordance with the minimum requirements for good agricultural and environmental condition defined pursuant to Article 5(1) of that Regulation.
- 5a. The Commission shall report every two years to the European Parliament and the Council, in respect both of third countries and Member States, on national measures taken
- to respect the sustainability criteria and for soil, water and air protection.
  - on the impact on social sustainability in the Community and in third countries of increased demand for biofuel, and
  - on the impact of EU biofuel policy on the availability of foodstuffs at affordable prices, in particular for people living in developing countries, and wider development issues.
  - Reports shall address the respect of land use rights. They shall state, both for third countries and Member States that are a significant source of raw material for biofuel consumed within the Community, whether the country has ratified and implemented eight Conventions of the International Labour Organisation (not included in this presentation)





# Sustainability verification – Neste Oil experience

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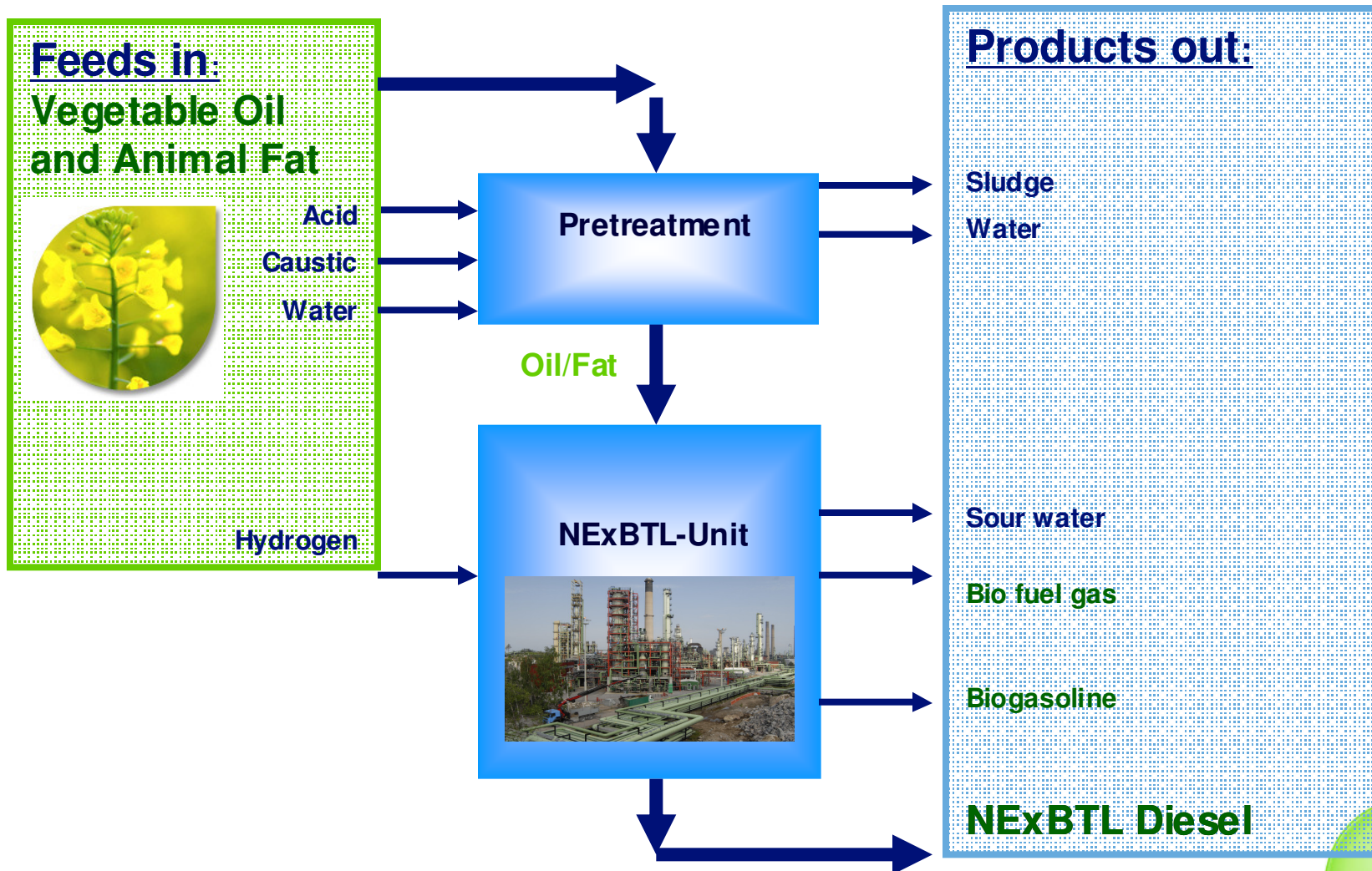


# Refinery based NExBTL unit

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Traditional way of looking on conversion process.

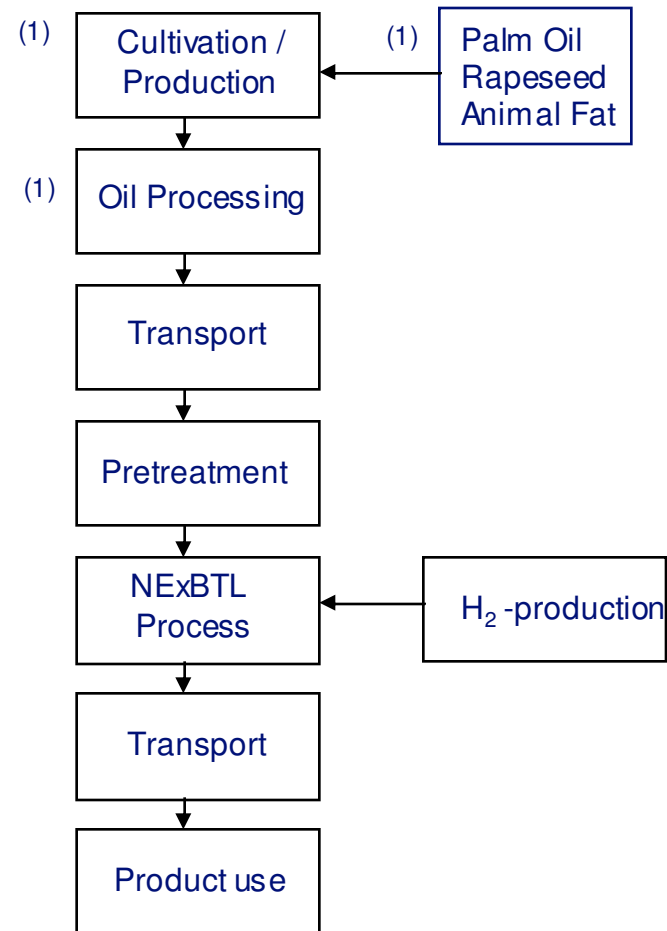
However, more holistic view on the whole life cycle was needed to improve the performance



## NExBTL:

### Measuring GHG Emissions over the product chain

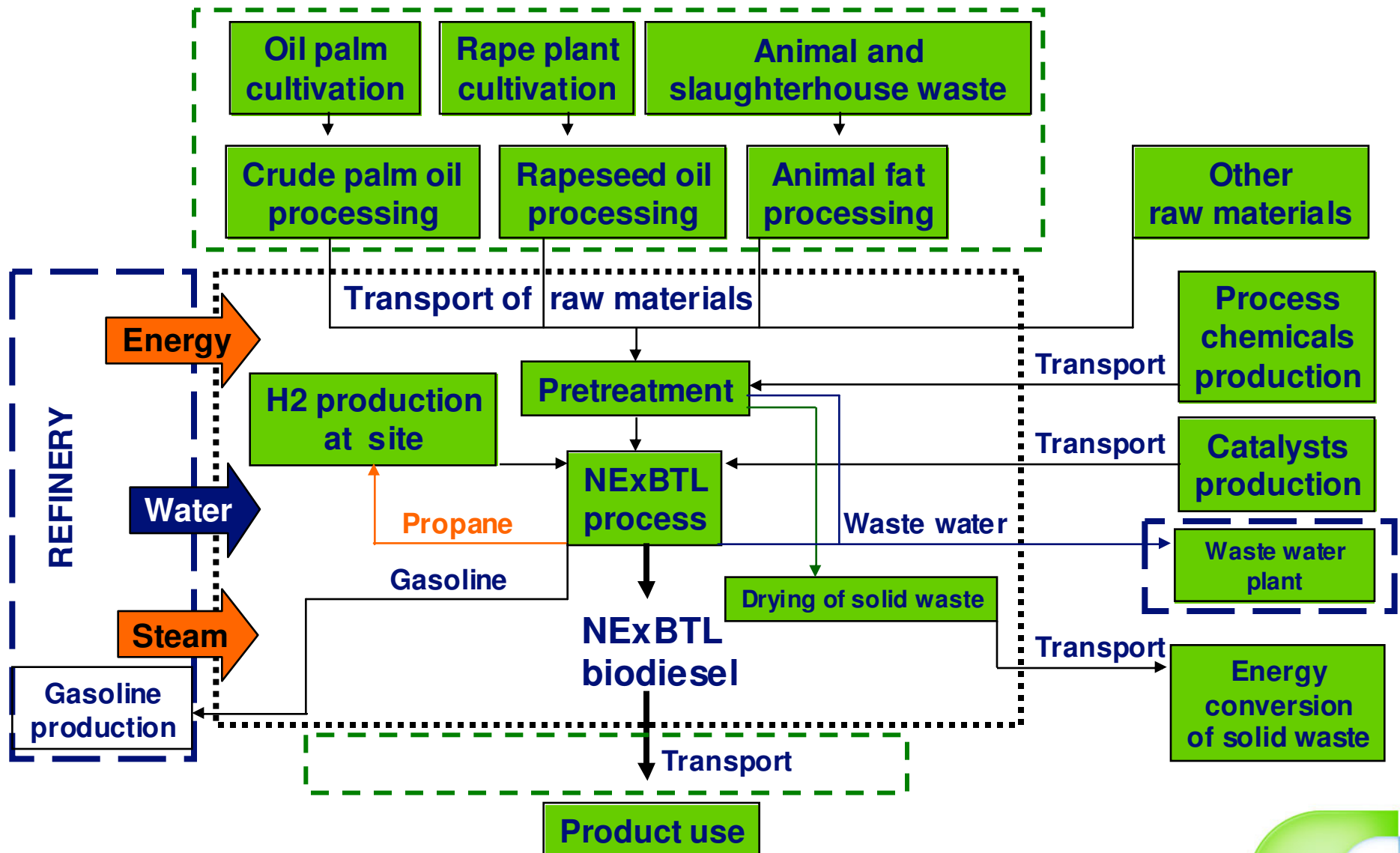
- Research Methodology is based on standards. Research and results can be verified.
- The research will be published.
- Applying principles of system theory
- Life Cycle Analysis as described in standards SFS-EN ISO 14040:2006 and 14044:2006
- Greenhouse gas calculation as described in standard SFS-ISO 14064-1:2006
- Assessment based on guidance given in Carbon Reporting Within the Renewable Transport Fuel Obligation (RTFO)
  - First transparent methodology prepared and piloted in cooperation between industry, environmental experts and authorities
- Comparable assessment by using methodology described in EU RES-directive proposal



(1) Examples of input data attached



# Modules of NExBTL LCA for GHG emission assessment

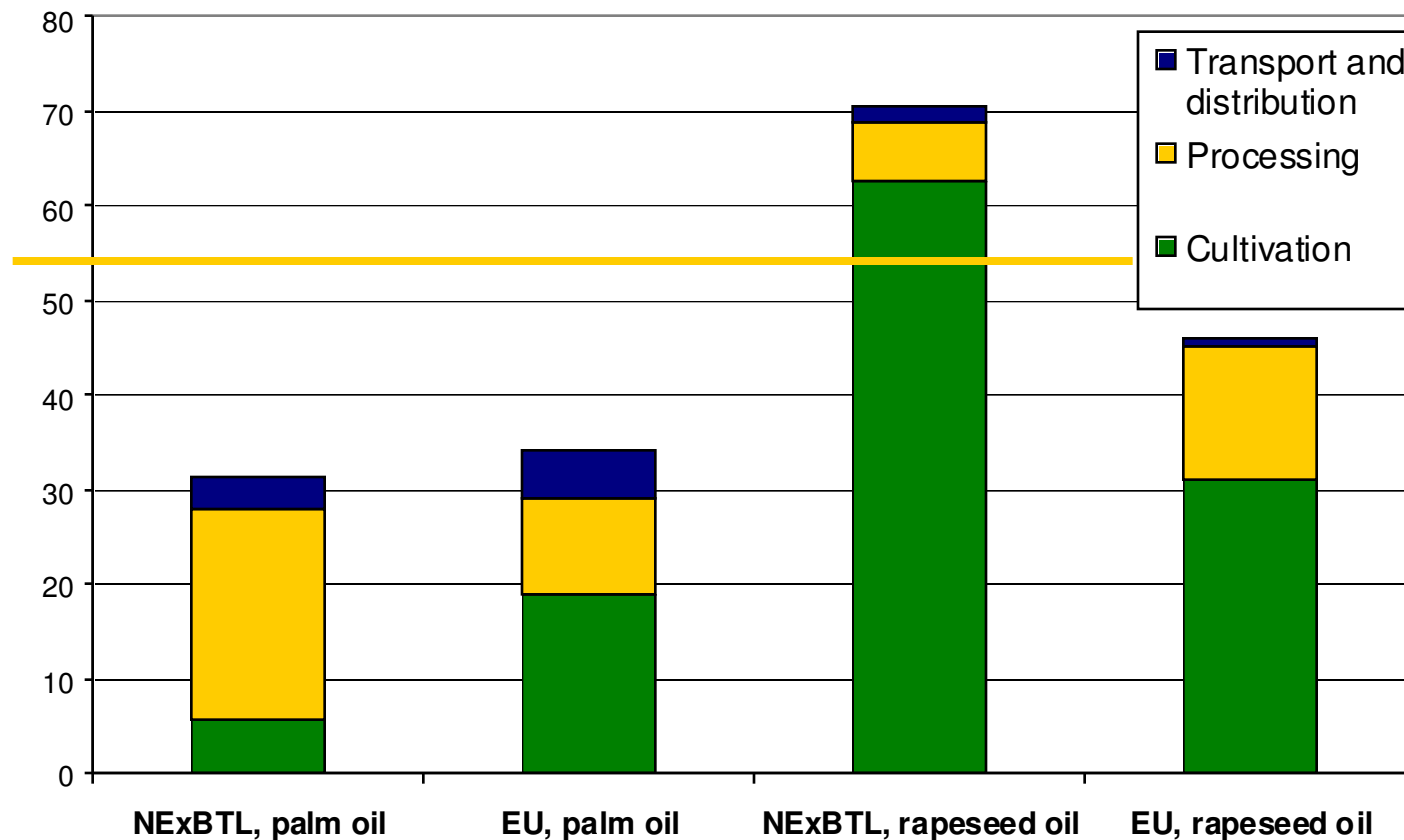


..... Primary data source      - - - - Secondary data source



## NExBTL product chain – Total greenhouse gas emissions according to proposal for EU directive on promotion of the use of energy from renewable sources

gCO<sub>2</sub>e/MJ NExBTL



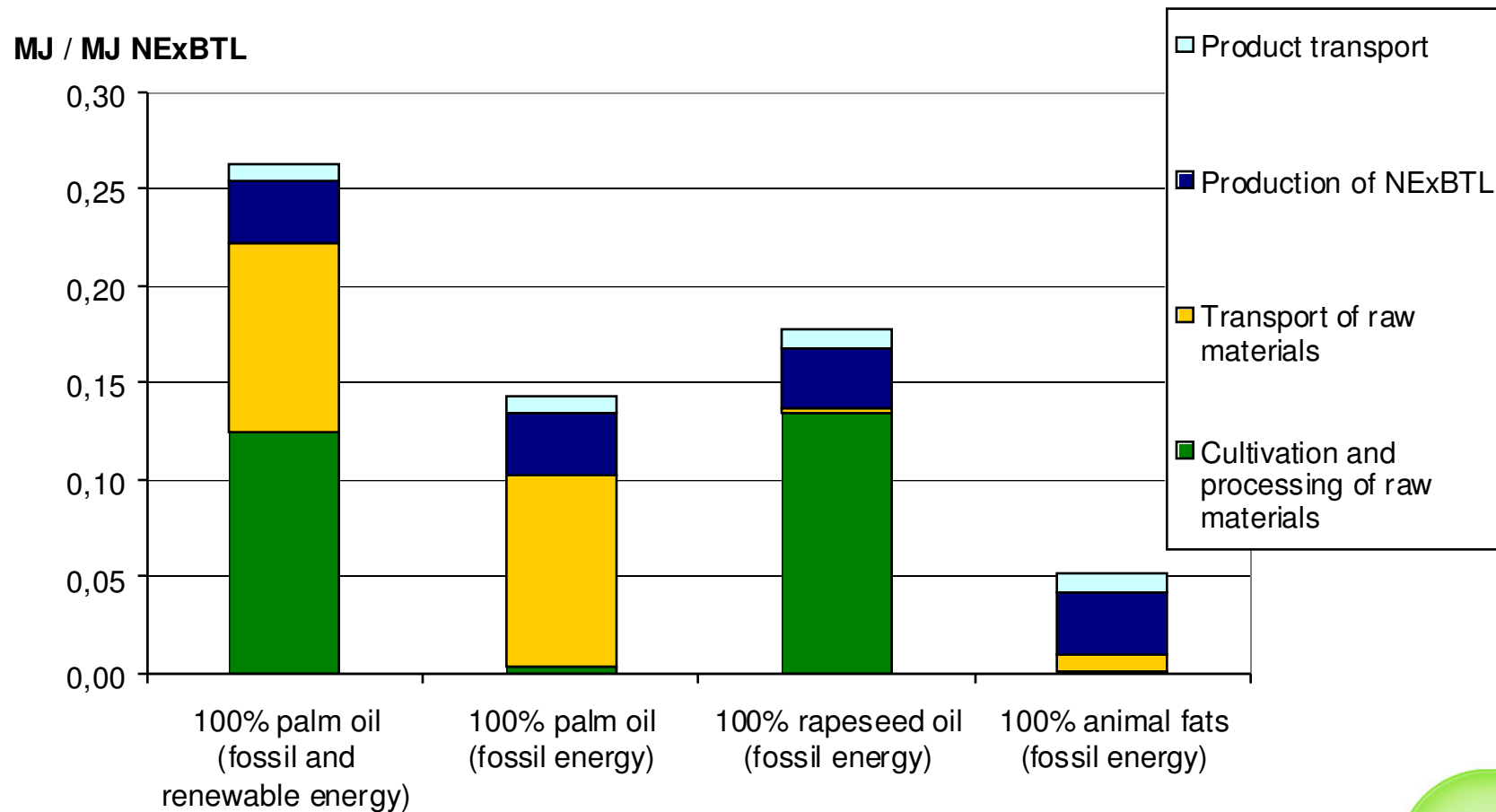
— EU sustainability limit

13.10.2008

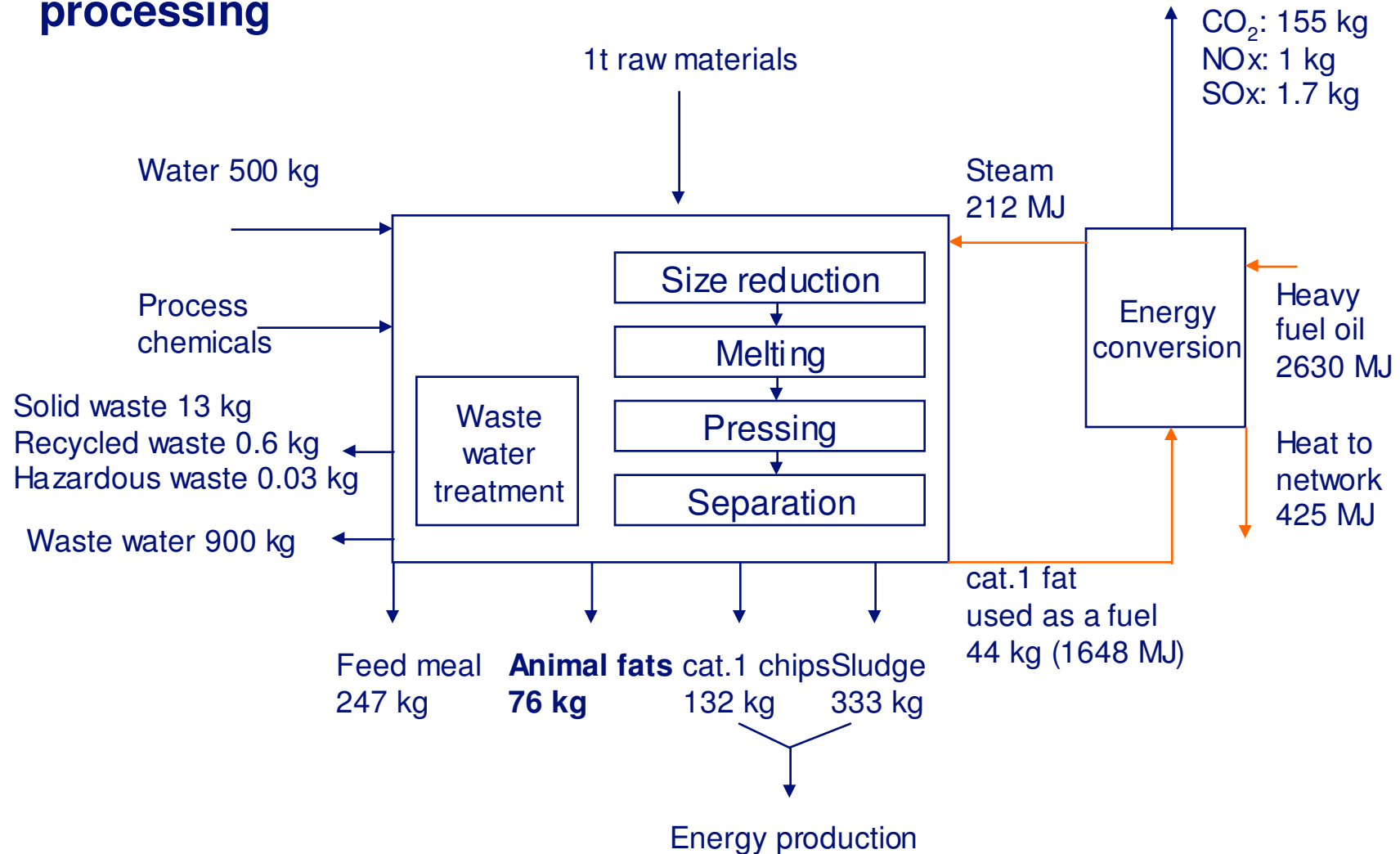
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# NExBTL product chain – total energy consumption



## Inputs & outputs of animal fat (AF) processing



Source: Environmental permit of Finnish rendering plant





**Thank you.**  
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