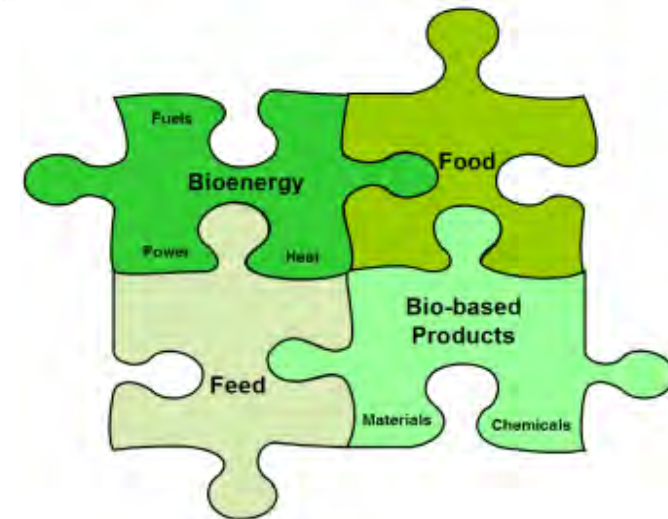


*The Austrian participation in Tasks 42 of
IEA Bioenergy is financed by the Federal
Ministry for Transport, Innovation and
Technology / Department for Energy and
Environmental Technologies*

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IEA Bioenergy

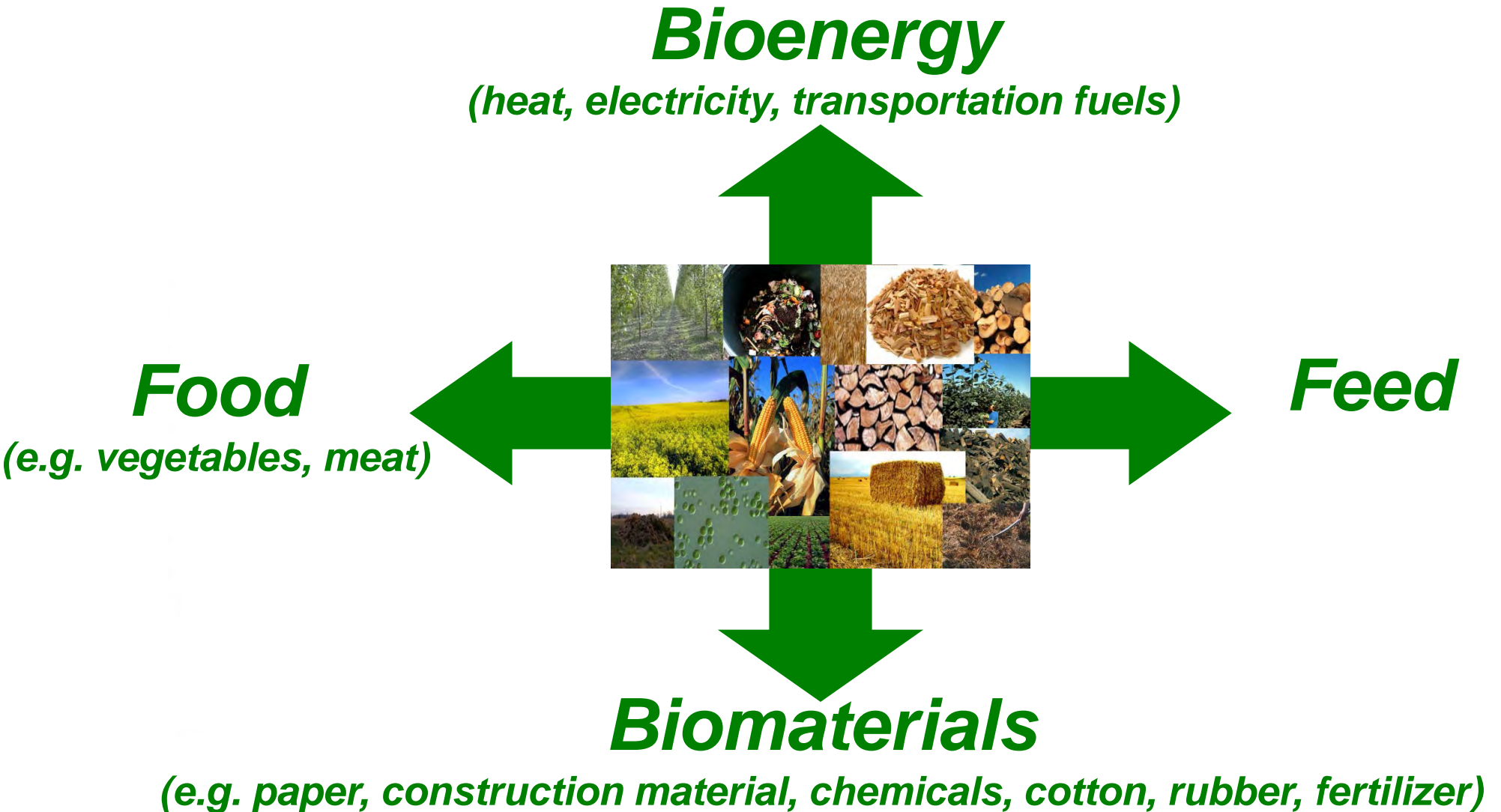
Task 42 Biorefining

Statement aus der Österreichischen Mitarbeit in der IEA Bioenergy Task 42 “Biorefining”

Gerfried Jungmeier

Themenworkshop “Biobased Industry”, Wien am 5. Dezember 2013

There is Competition for Different Biomass Uses



Maize What For? – Two Green Arguments

This plastic bag is
made from maize, a
renewable resource,
and decomposes
naturally



This biofuel is made
from maize, a
renewable resource to
reduce GHG emissions

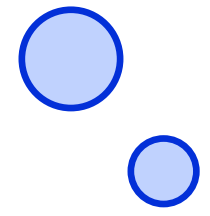
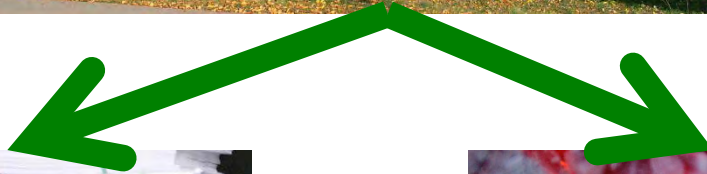
?????????



How to Use a Tree?



Questions:
1) Which part of the tree do you mean?
(stem, branches, tops, roots)



Pulp & paper



Power & heat

How to Use a Tree?



Questions:

1) Which part of the tree do you mean?

(stem, branches, tops, roots)

2) Today or in future?

(bioplastic&biopower for e-book)



Pulp & paper



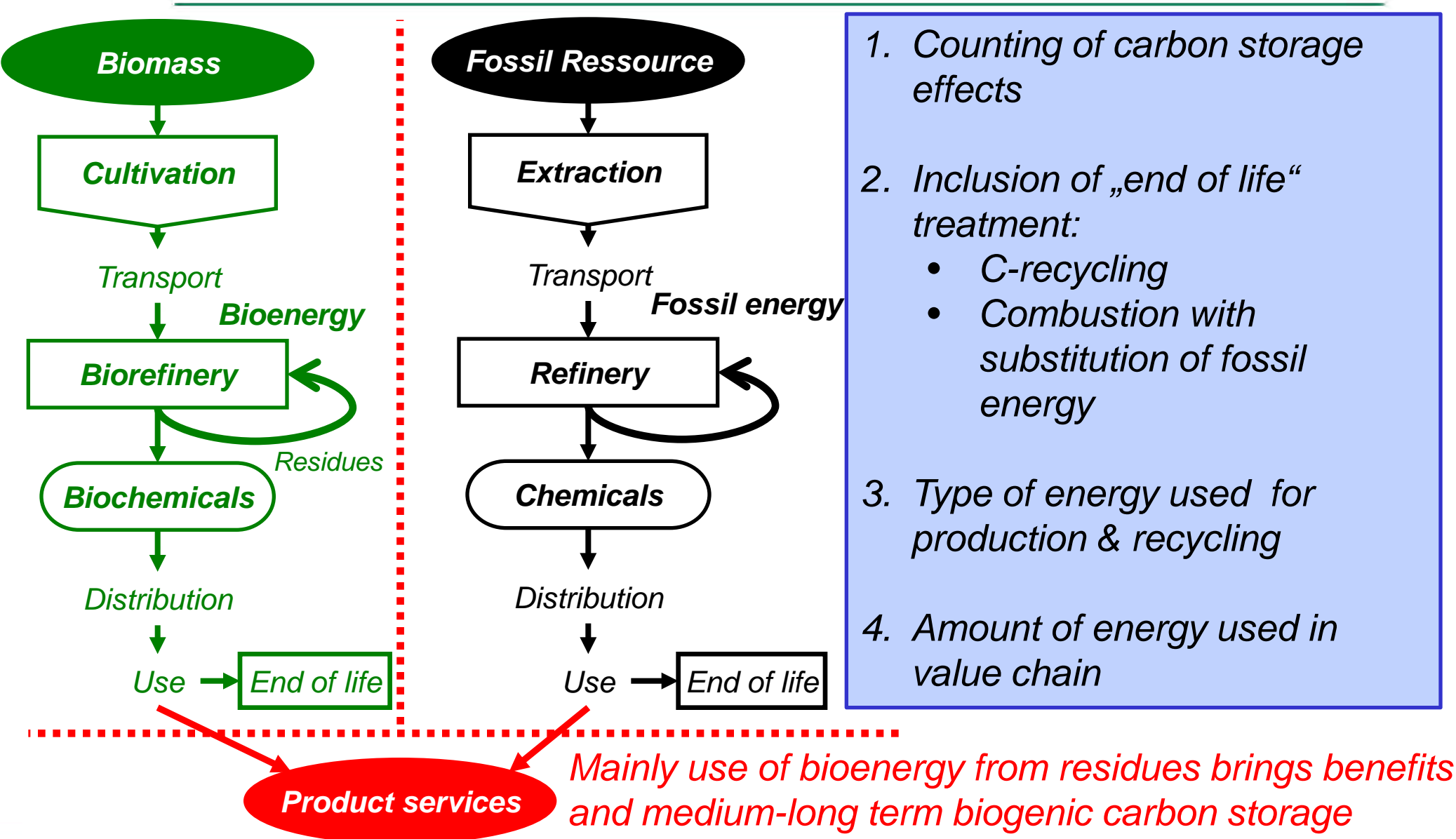
Power & heat




Plastic & power



Discussion on Reasons for „Good“ GHG Balance of Biochemicals



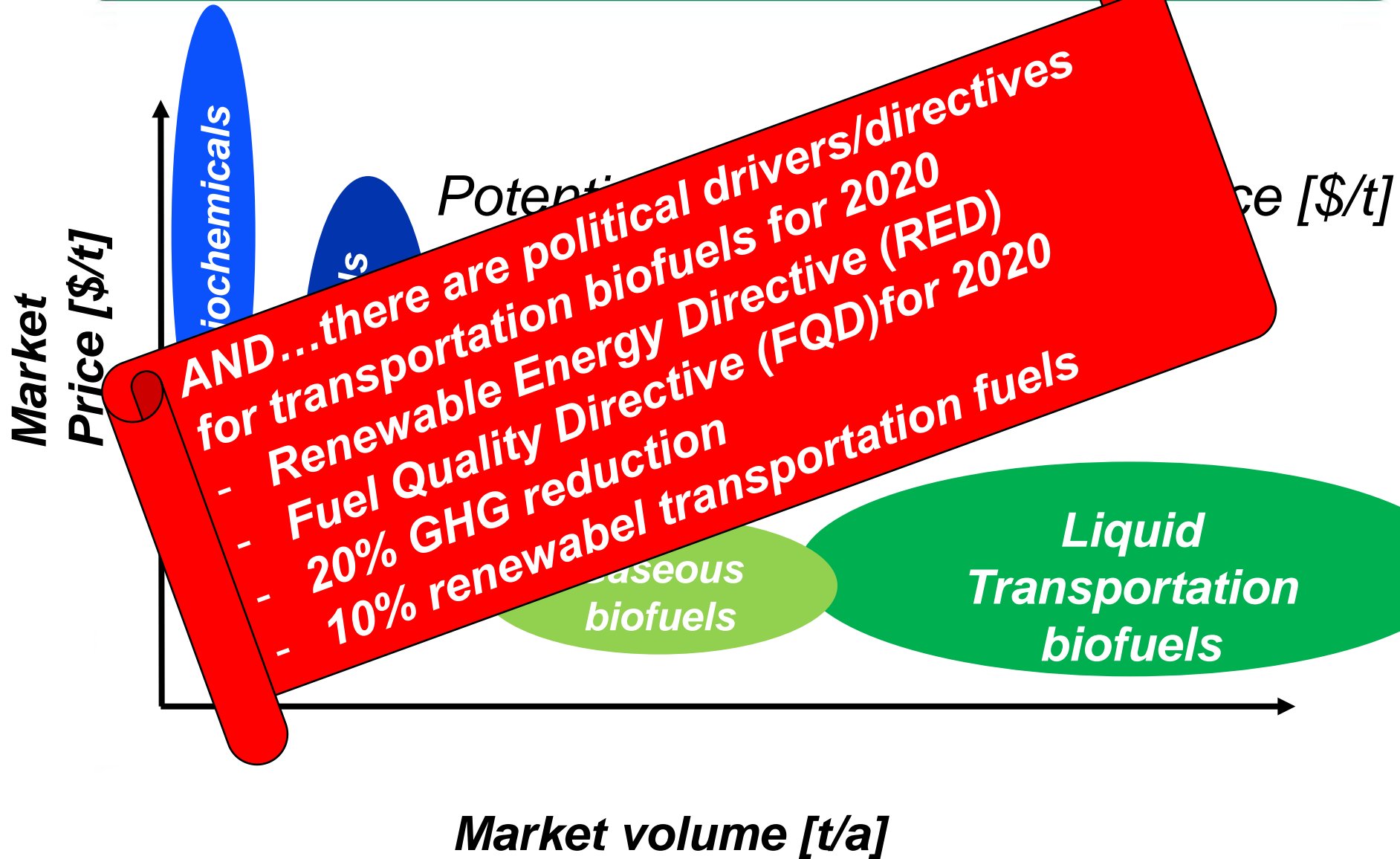
A Statement



“There is no scientific evidence that the material use of biomass provides greater sustainability benefits than the energetic use, or vice versa.

BUT there is evidence that the combined energetic and material use (“biorefining”) of biomass has the potential for large sustainability benefits”

Product Trade off: Market Volume and Price



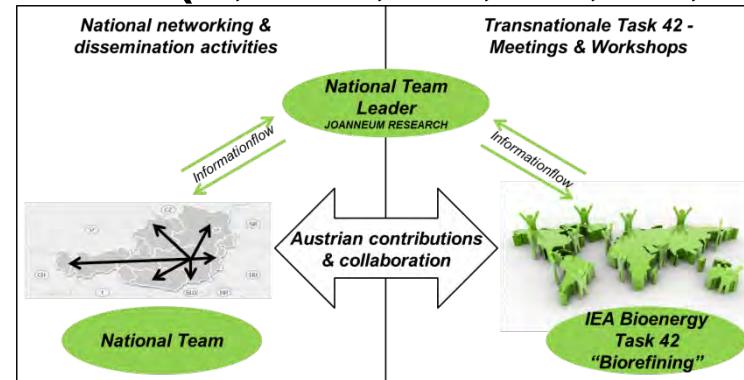
Austrian Participation IEA FORSCHUNGS KOOPERATION

Bioenergy Task 42 „Biorefining“

Task 42: since 2007 with 11 countries (A, AUS, CA, DK, FR, G, I, J, NL, US)

Main activities:

1. Exchange of information
2. Networking
3. Key areas (I – V):

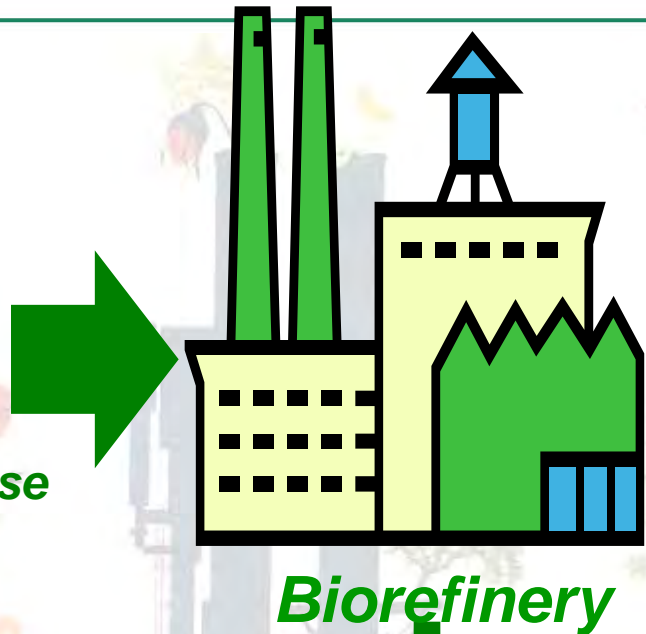


- I. Market deployment aspects for biorefineries** (success factors, changing technologies, central/decentral processing, Biorefinery-Complexity-Index)
- II. Stakeholder support for future BioEconomy** (integration in existing industrial infrastructures, Biorefinery Factsheets, National case-studies, added-value products)
- III. Optimal sustainable biomass valorization** (supply chains, biomass demand, optimal biomass valorisation)
- IV. Policy&decision advice** (roadmap, policies, country reporting)
- V. Dissemination&training activities** (task&stakeholder meetings, website, data-base biorefineries, newsletters, reports, brochures, leaflets, presentations, training course)

This is a Biorefinery

Biomass Resources

- oil
- starch
- sugar
- lignocellulose
-



Bioenergy

- *liquid/gaseous transport biofuels*
- *electricity*
- *heat*
- *solid fuels*

Bioproducts

- *bulk chemicals*
- *fine chemicals*
- *animal feed*
- *food*
- *pulp&paper*
- *materials*
- *fertilizer*
- *gases*
- *.....*

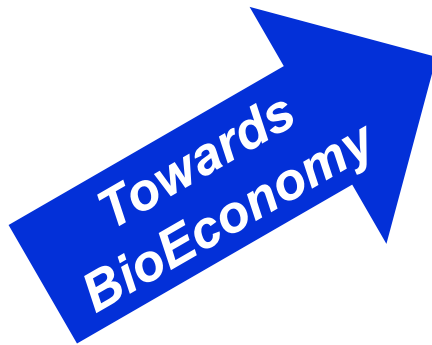
Based on different conversion processes

- *Bio-chemical*
- *Thermo-chemical*
- *Physical-chemical*
- *Others*

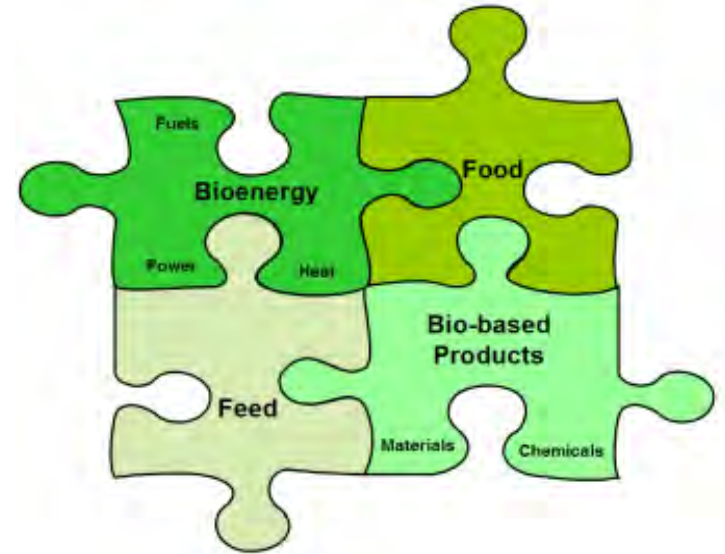
“Biorefinery is the sustainable processing of biomass into a spectrum of marketable products”

The New Way in BioEconomy: From Competition to Integration

Competition



Integration



Bioenergy
(heat, electricity, transportation fuels)

Food
(e.g. vegetables, meat)



Feed

Biomaterials

(e.g. paper, construction material, chemicals, cotton, rubber, fertilizer)



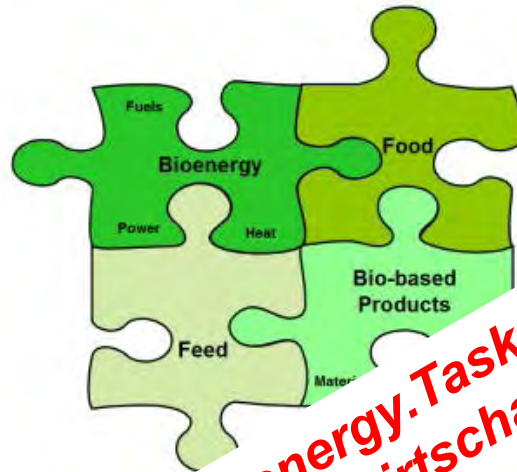
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- Database
- Members Area

Aims of IEA Bioenergy Task 42

The framework of the activities of IEA Bioenergy Task 42 is the sustainable processing of biomass into a spectrum of Biobased Products and Bioenergy.



The aims of Task 42 are:

1. Assess the technical and economic potential for biorefineries.
2. Gather information on the simultaneous production of human food, animal feed, chemical products, power and/or heat from biomass in a socially and environmentally sustainable and economically profitable way.

>> More about IEA Bioenergy and Task 42 partners

Country Reports »

Biorefinery Database »

Agenda

No events

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www.IEA-Bioenergy.Task42-Biorefineries.com
www.nachhaltigwirtschaften.at/iea