

International sustainable bioenergy trade - an overview from IEA Bioenergy Task 40

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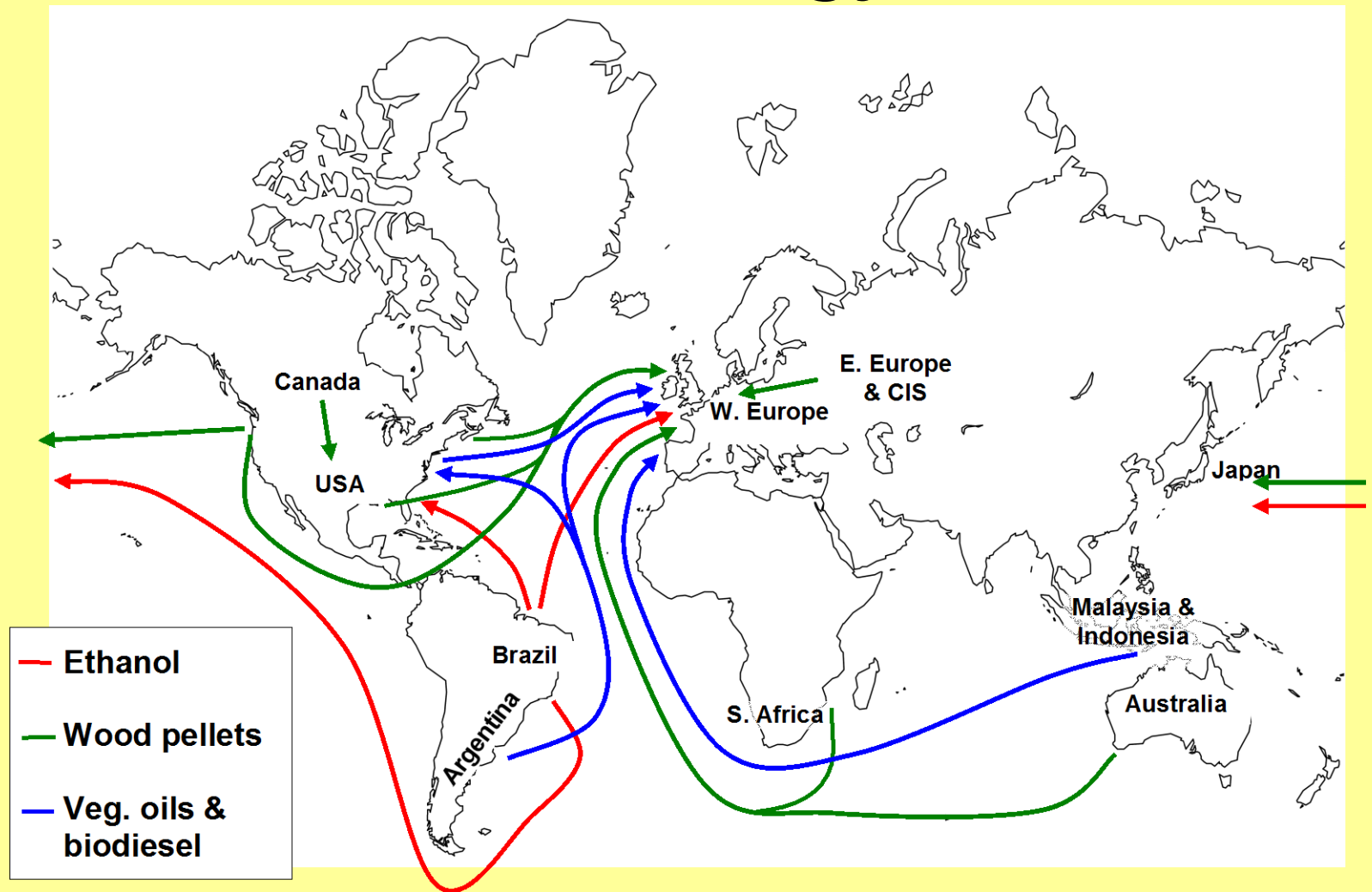
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Supported by **Martin Junginger** (Utrecht University)

IEA Bioenergy - Biofuels and Bioenergy – a changing climate,
Vancouver Canada, August 23-26, 2009

Current *bioenergy* trade



Annual int. traded volumes of ethanol, biodiesel and wood pellets > 4 million tonnes in 2009 and increasing rapidly

Rationale of international bioenergy trade:

1. Fuel supply security: diversify portfolio of fuels used & imported; also true for bio-energy as such (!)
2. Cost effective emission reduction of greenhouse gases: Some regions have inherent advantages in producing large volumes low cost biofuels.
3. Socio-economic development: benefits for national trade balances and a sustainable source of income for rural communities.
4. Sustainable management and the rational use of natural resources: biomass production combined with better agricultural methods and restoration of degraded and marginal lands.

Key aims for the 2007-2009 triennium:

- i) to improve the **understanding of** biomass and bioenergy **markets and trade**;
- ii) to analyze the possibilities to develop biomass resources and **exploit biomass production potentials in a sustainable way**, including supply chains and required logistics;
- iii) to perform **coherent analyses** of biomass markets and trade by **modeling and scenario analysis**;

Key aims for the 2007-2009 triennium:

- iv) to evaluate the **political, social, economic and ecological impact** of biomass production and trade, and develop **frameworks to secure the sustainability** of biomass resources and utilization, and
- v) to provide a vital contribution in the coming years for market parties, policy makers, international bodies and NGO's by providing **high quality information** on these topics.

Member countries IEA Task 40

- Netherlands (T.L.)
- Austria
- Belgium
- Brazil
- Canada
- European Commission
- Finland
- Germany
- Italy
- Japan
- Norway
- Sweden
- UK
- US

Explored:

- Australia
- Denmark
- Ireland
- South Africa

Good involvement of market parties!

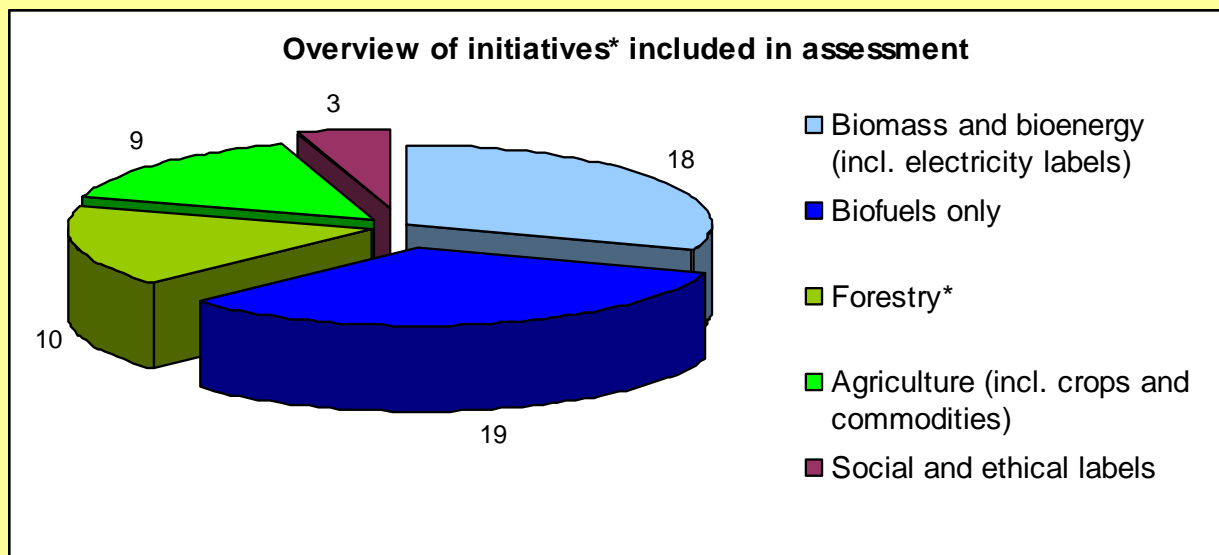
Some 2009 activities & output

- Update **sustainability criteria** & development of certification systems (**content!**)
- Re-address **barriers for trade**, including comprehensive stakeholder consultation (**with UNCTAD & UNIDO**).
- Market studies, demand analysis and modeling trade (e.g. **vegetable oil market study**)
- Overview & **synthesis country studies**
- Oct. 28-29, 2009, Tsukuba, Japan: workshop on international bioenergy markets in South and East Asia.

Overview and comparison of sustainability certification schemes

Preliminary results: **59** initiatives (regulation + systems) included

- All relevant for (some) sustainability issues and/or
- Various parts of the bioenergy value chain



* Substantially more forestry certification systems exist

Inventory of biotrade barriers and opportunities

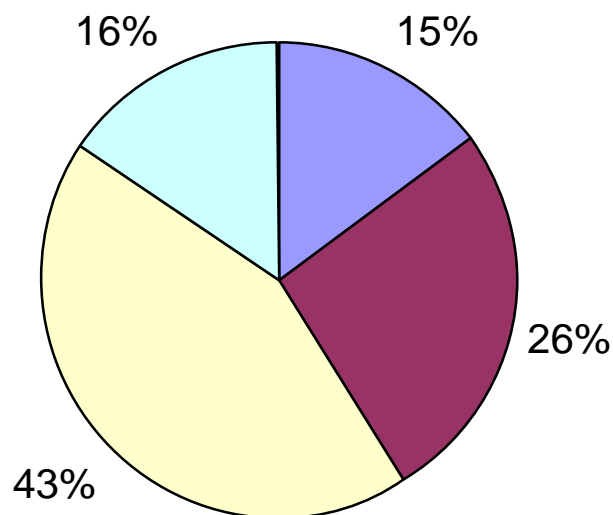
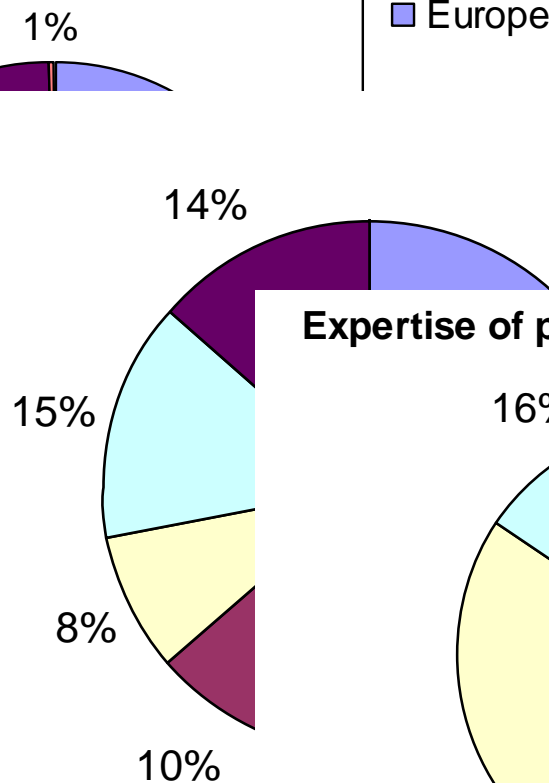
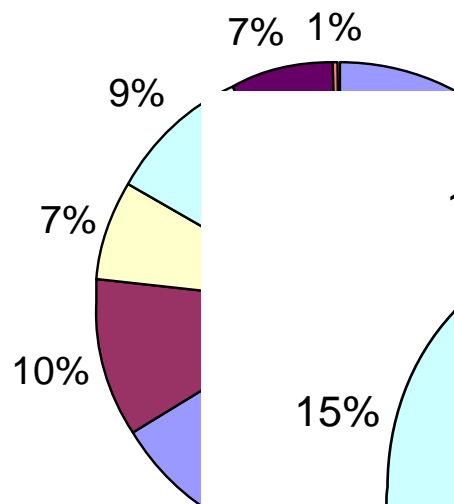
Rationale: bioenergy trade is growing rapidly – many opportunities and barriers arising all the time

Aim: get an up-to-date overview of what market actors currently perceive as major opportunities and trade barriers for the current and future development international bioenergy trade for three internationally-traded bioenergy commodities: 1) bioethanol 2) biodiesel 3) wood pellets.

Joint effort with UNIDO and UNCTAD, final paper to be published in autumn 2009

Overview of participants

February – July

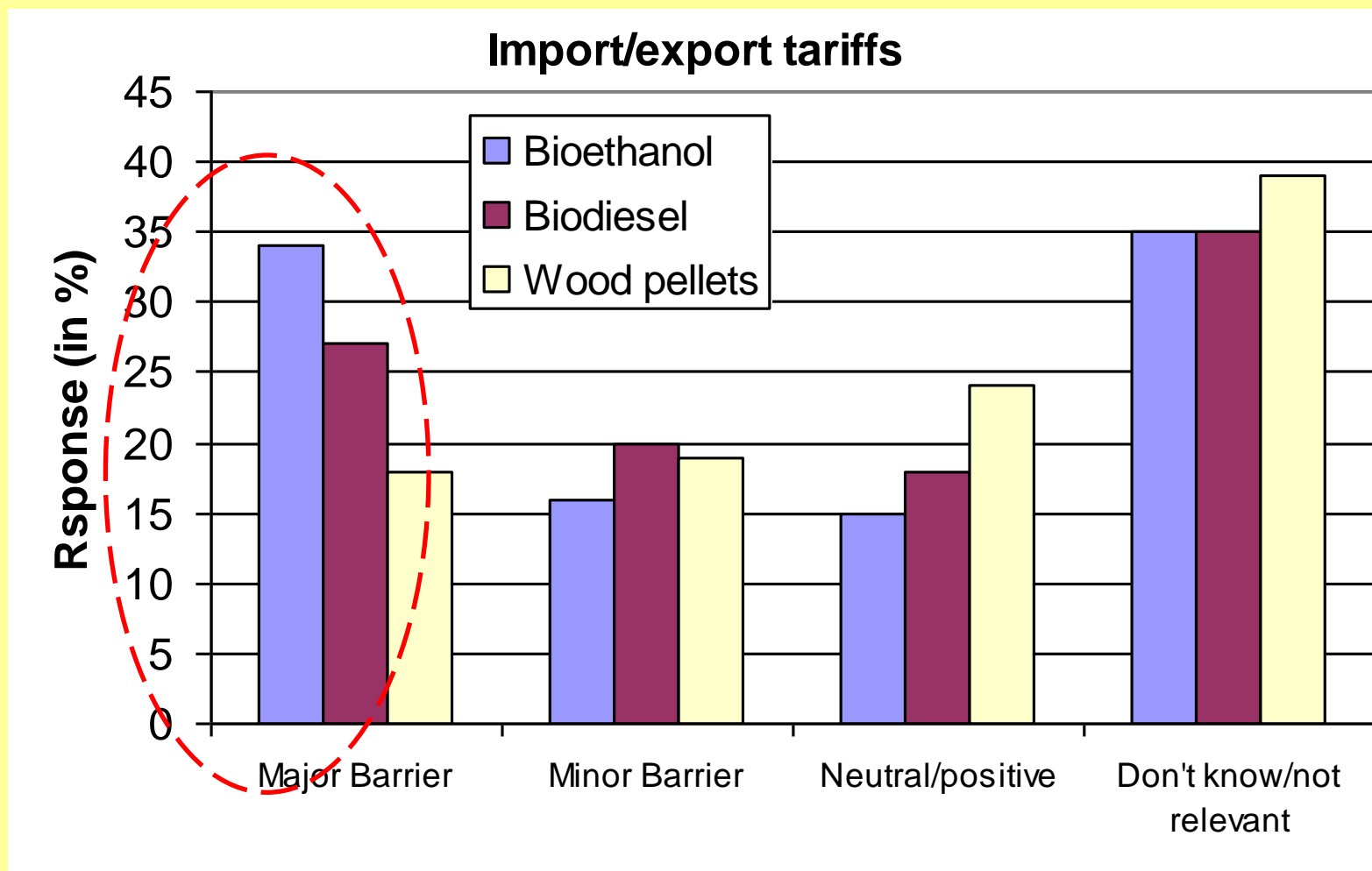


Bioethanol

Biodiesel

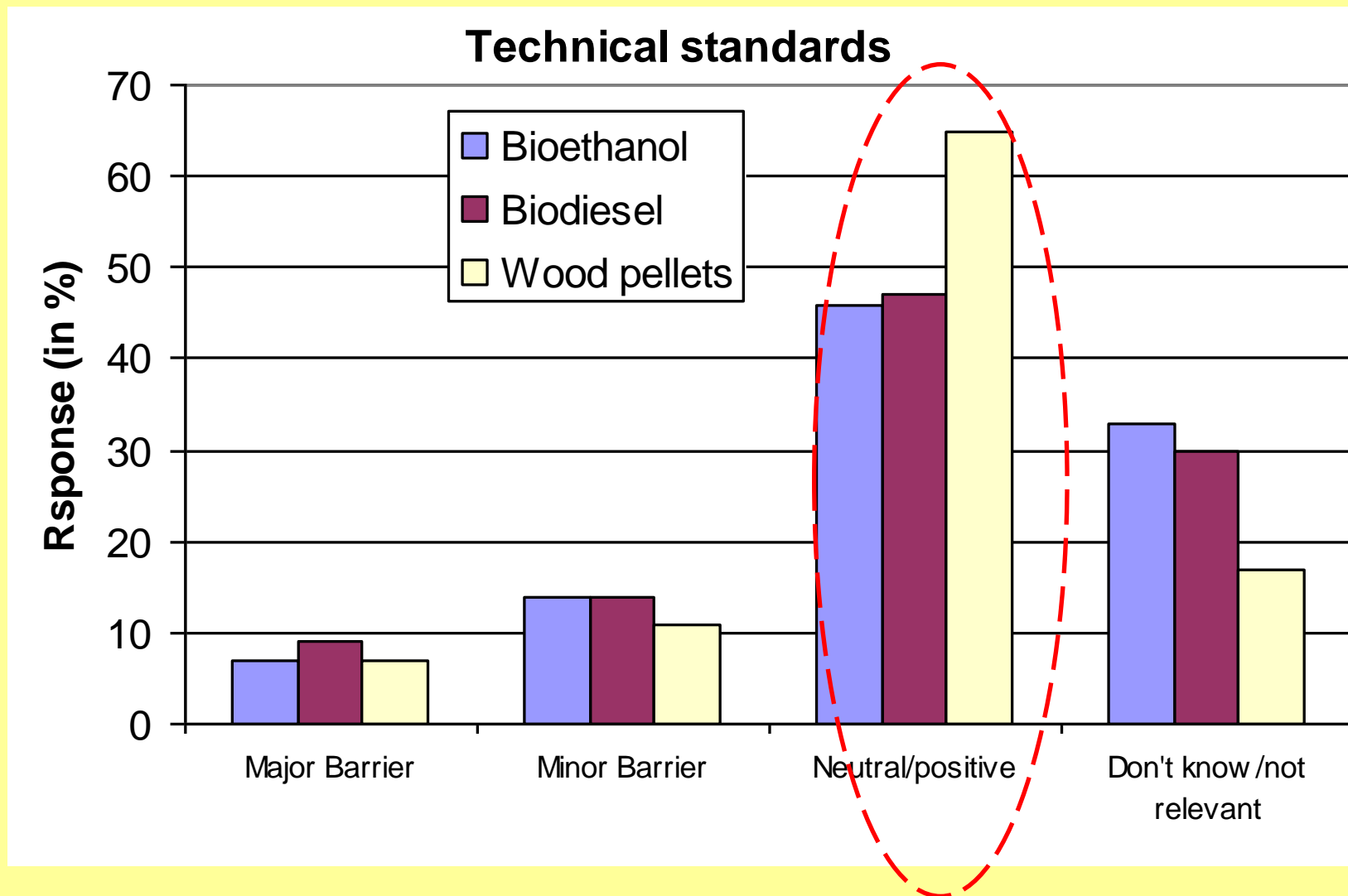
Wood pellets

General expertise

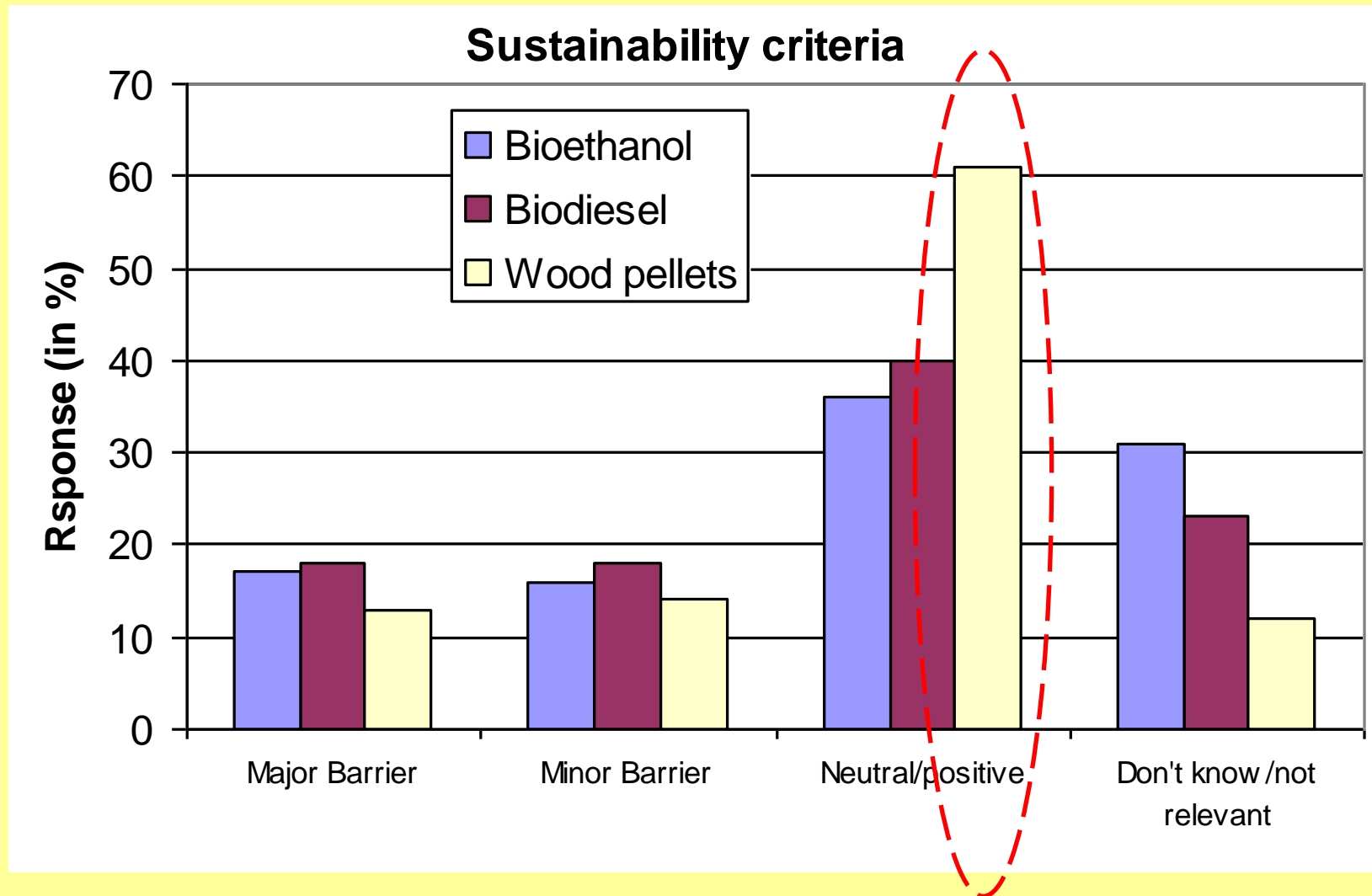


Ethanol: long-standing duties,

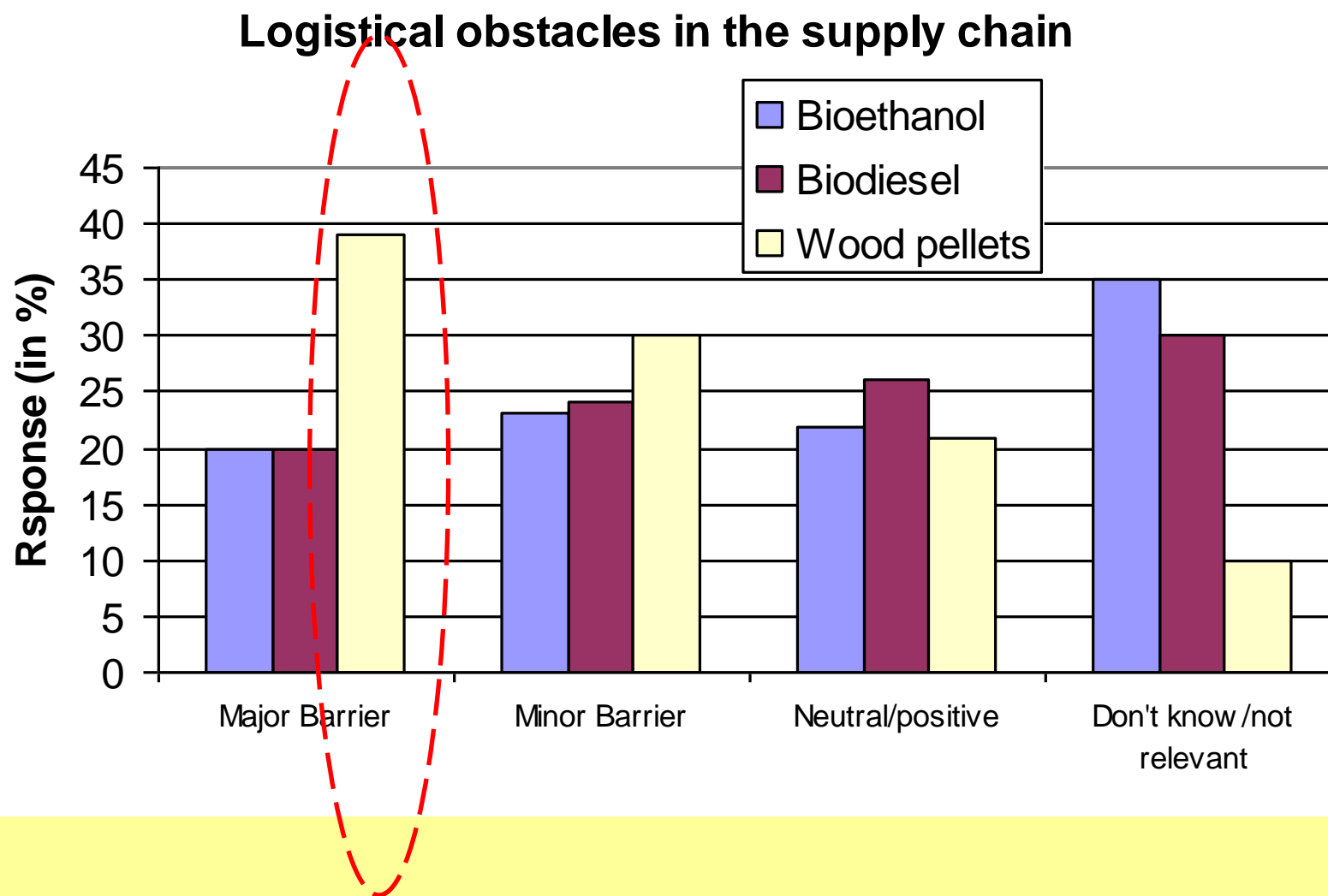
Biodiesel: Conflict between the US and EU



Blending requirements / safety for consumer

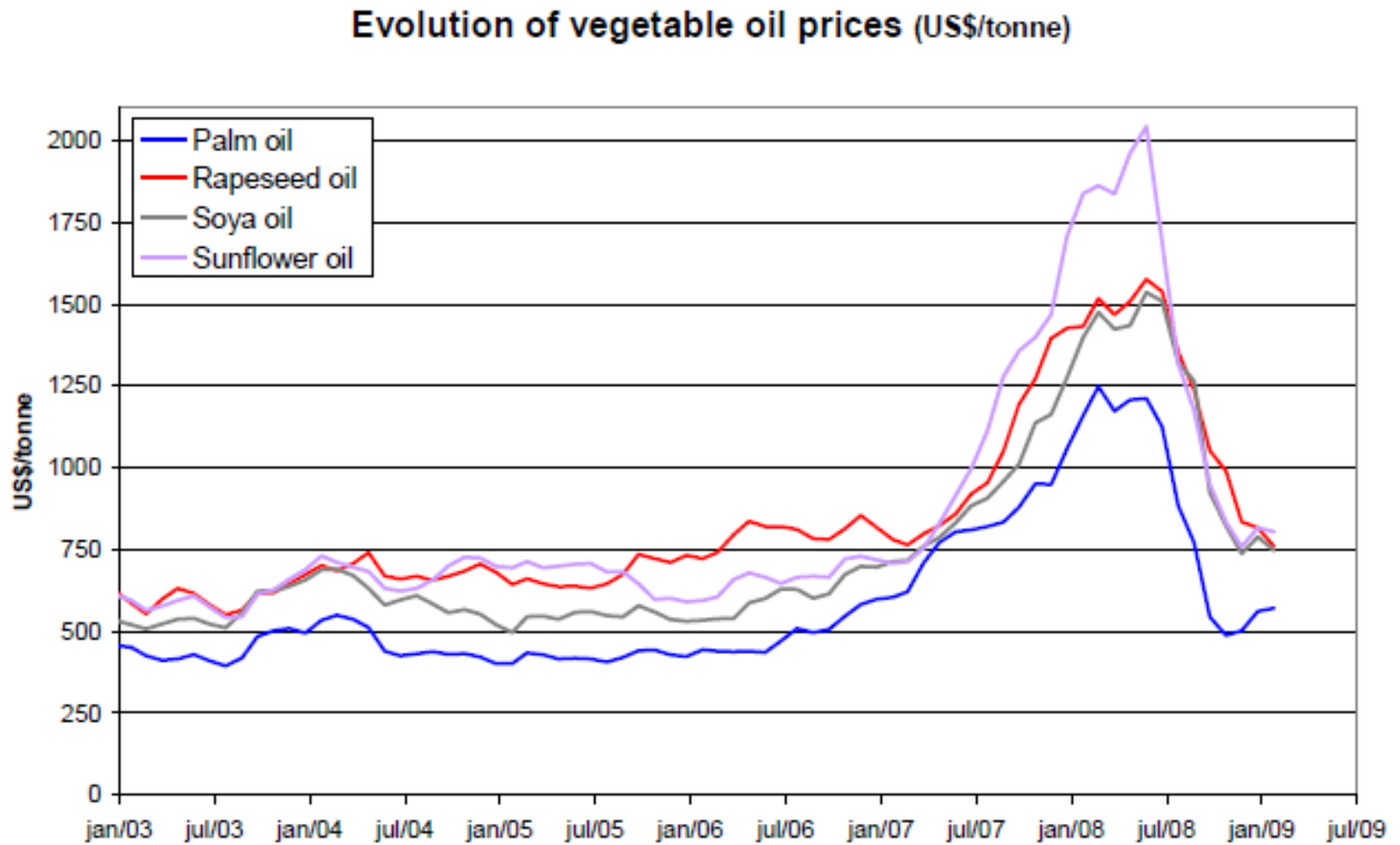


Necessity to prove sustainability for liquids –
confidence for solid biomass



On the feedstock side, but also distribution to the small-scale end-user

Global overview of vegetable oil markets



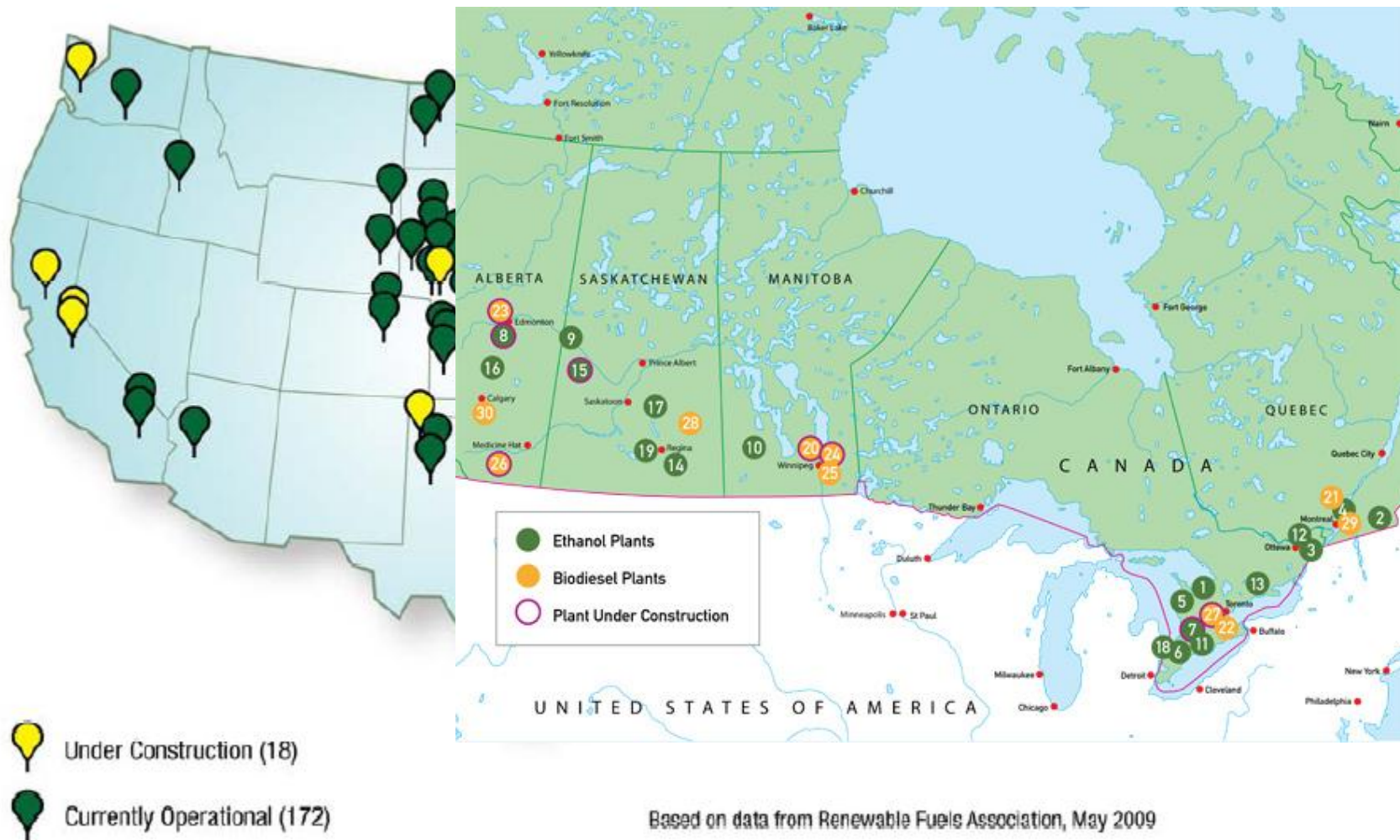
Country reports from Task 40

Are updated every 1-2 years, and cover a.o.:

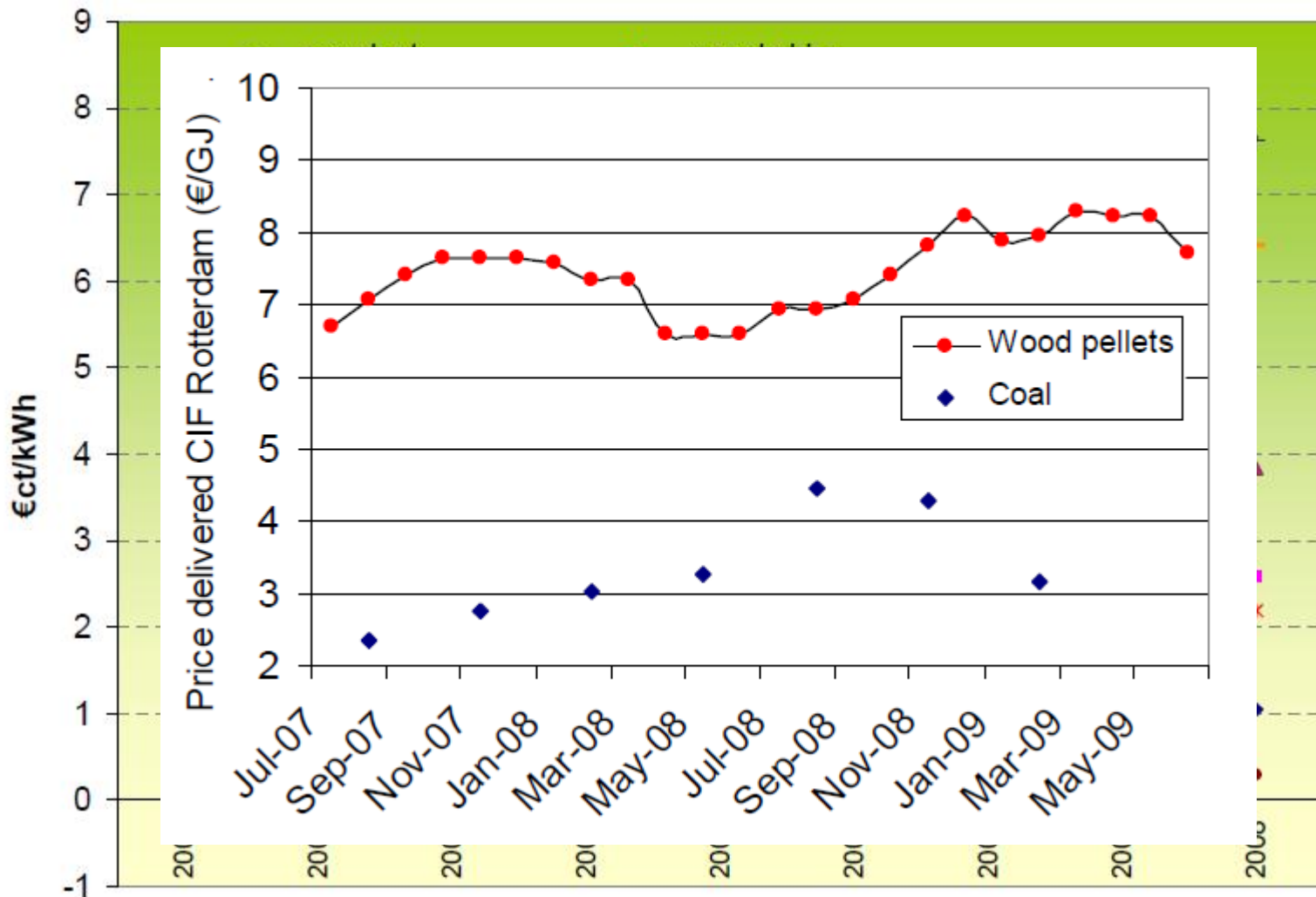
- Biomass potentials and users
- Biomass prices
- Biomass import/export volumes
- Barriers and opportunities for bioenergy trade

For example: biofuels producers in the USA and Canada

5.2.1 U.S. Biorefineries by Location⁸⁸



For example:
solid biofuels prices in Germany and the Netherlands



For example:

**bioenergy import/exports in the 1) the UK
2) Netherlands 3) Sweden and 4) Norway**

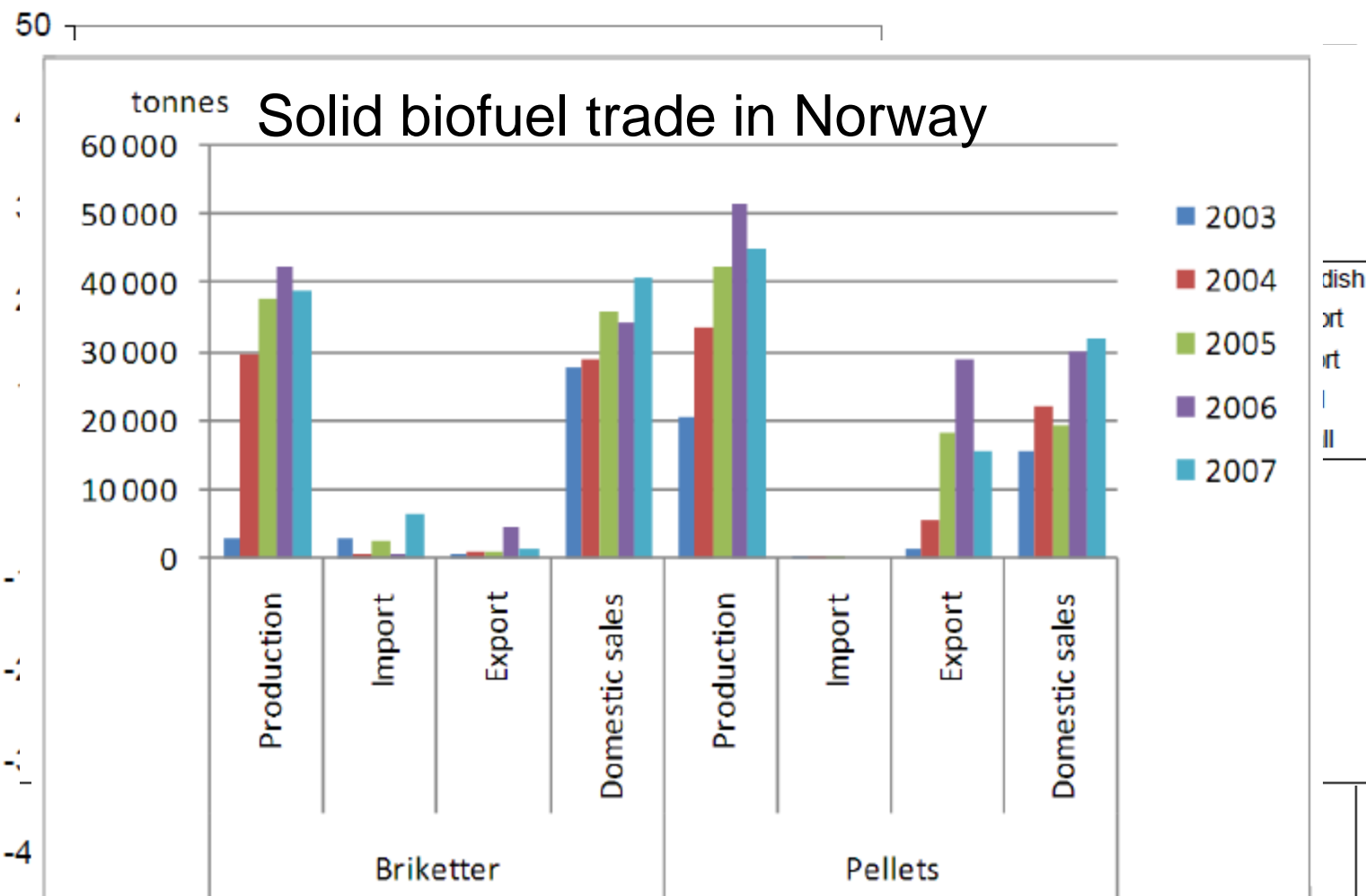
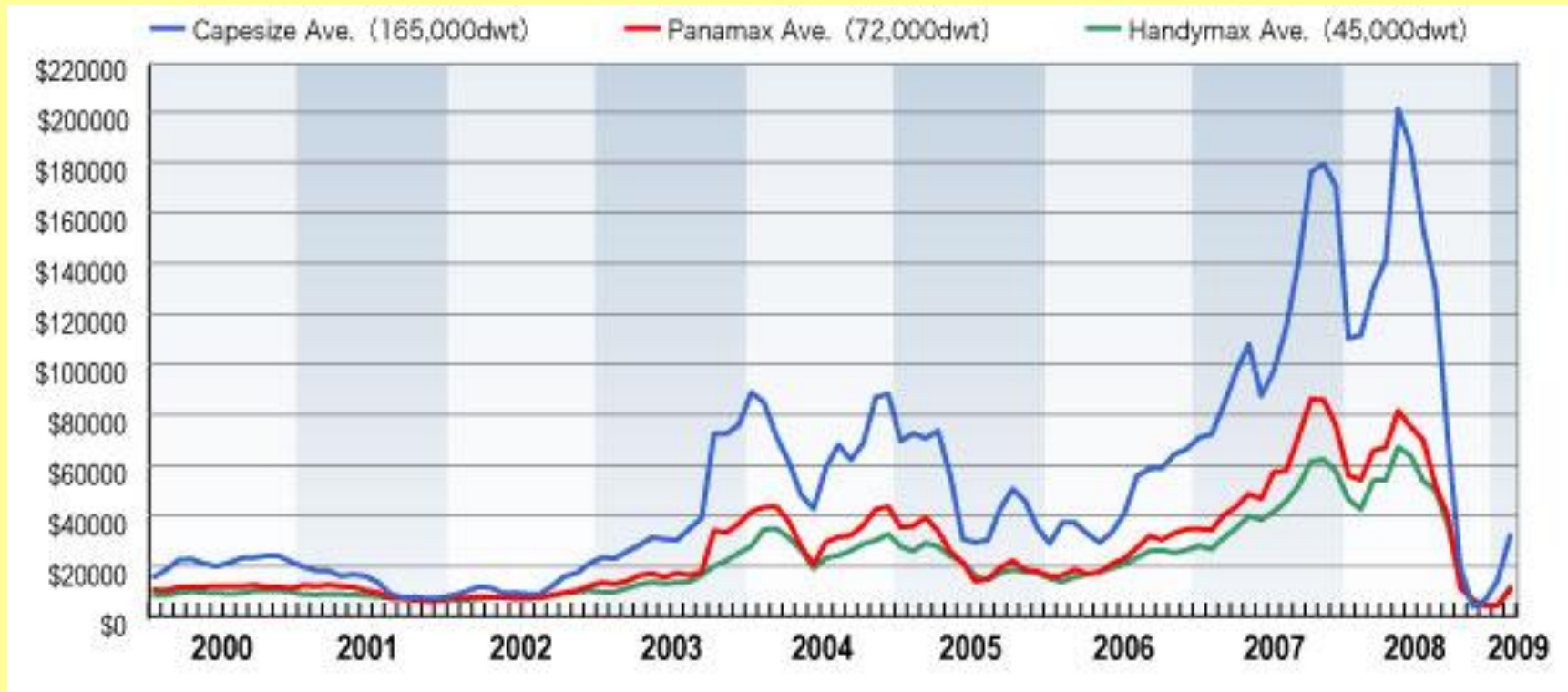


Figure 11. Import and export of pellets and briquettes 2003-2007. Data from

www.nobio.no

For example:

Trade opportunities and barriers due to int. shipping rate fluctuations



Thanks for your attention

For more information, see:

www.bioenergytrade.org:

- Detailed activities
- Background information
- Results
- Events:

Next event: Oct. 28-29, 2009, Tsukuba, Japan: workshop on international bioenergy markets in South-East and East Asia.