



Biofuels Trade and Certification

Gernot Klepper
The Kiel Institute for the World Economy
Kiel, Germany

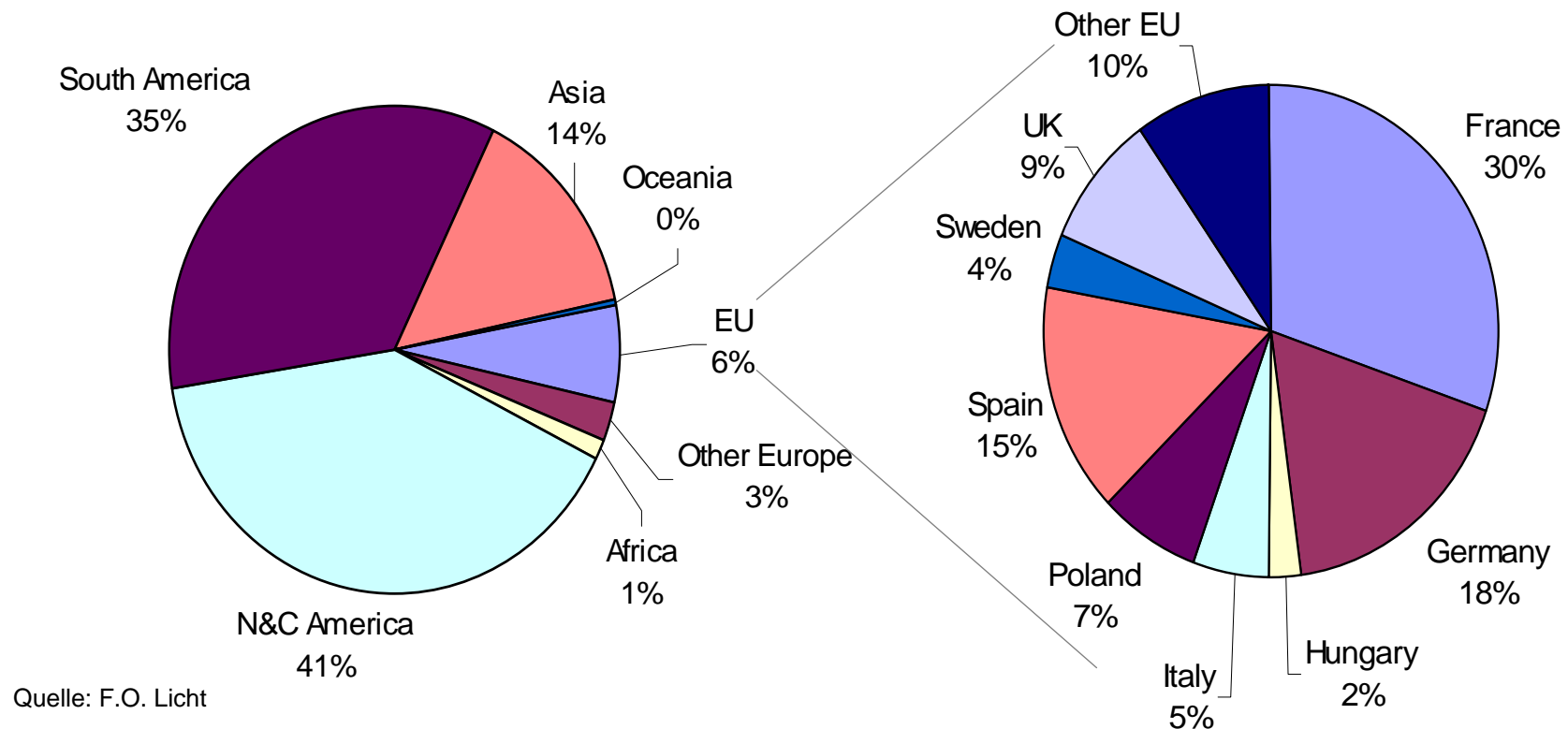
gernot.klepper@ifw-kiel.de



Outline

- Biofuels as a global commodity
- Imports and Exports
- Certification and Sustainability
- Certification Process
- Open Questions

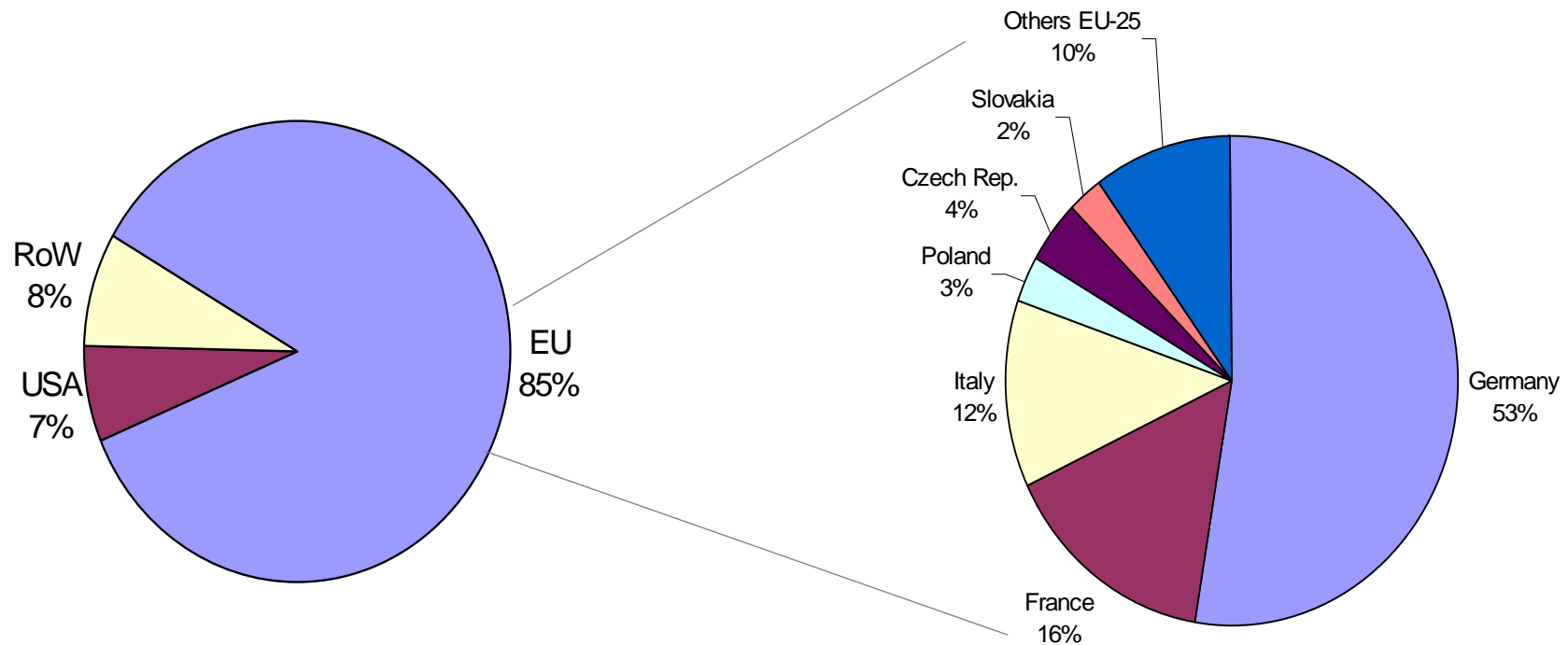
Bioethanol Production 2005



45 Mio. m³ Ethanol were produced in 2005 , in 2006 50 Mio. m³ are expected

Only about 2,7 Mio. m³ were produced 2005 in the EU, for 2006 3,1 Mio. m³ are expected

Production of Biodiesel 2005

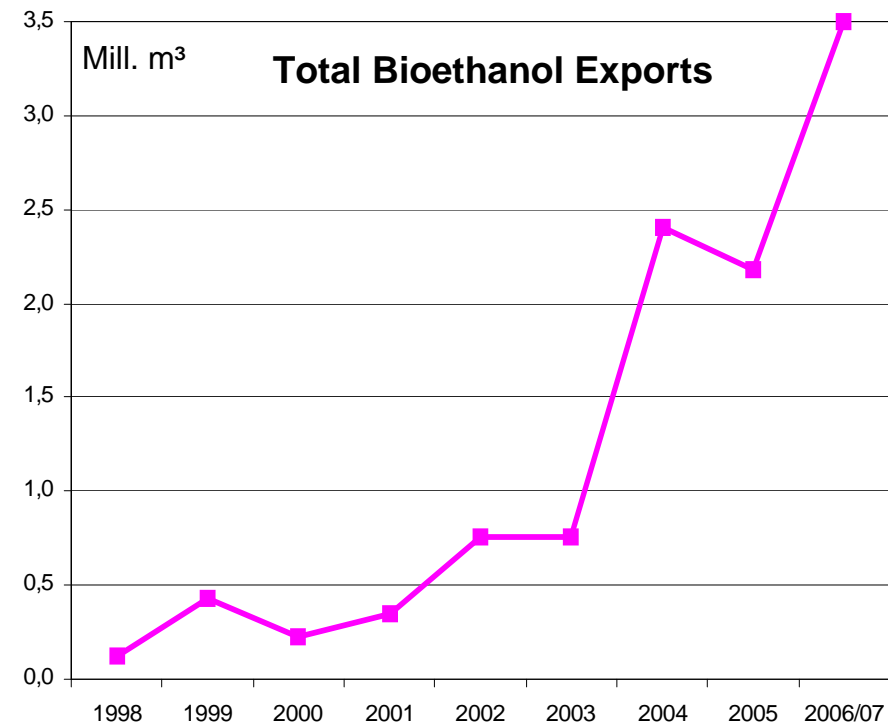
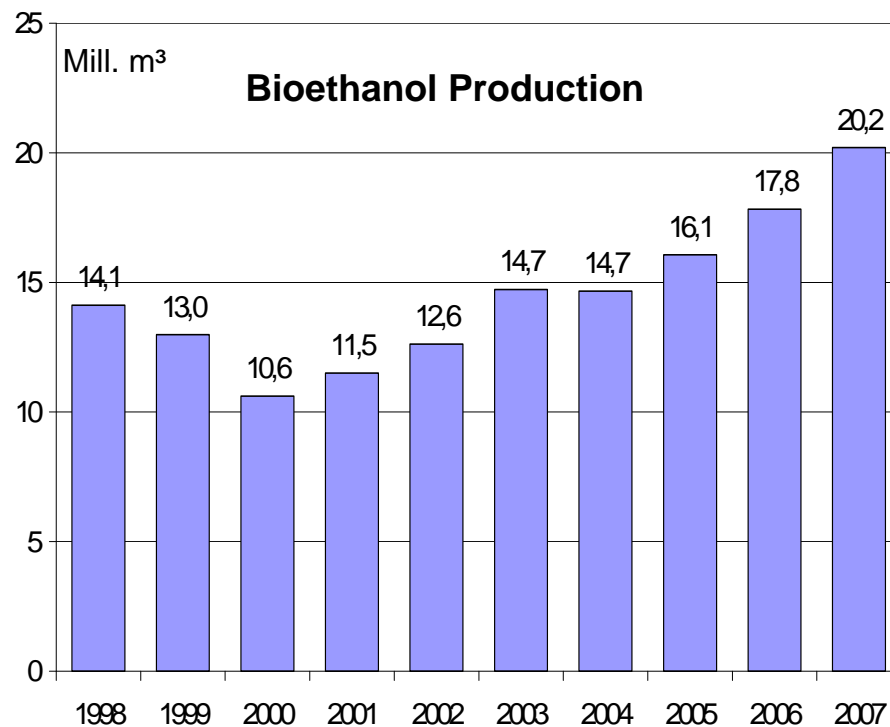


Quelle: Diester Industrie International/ EBB

*Worldwide Biodiesel production
is 3,8 Mio. t in 2005*

*Of which 3,2 Mio. t are produced in the EU,
more than half of it in Germany*

Biofuel trade is growing faster than production



Source: F.O. Licht, 2007; UNICA

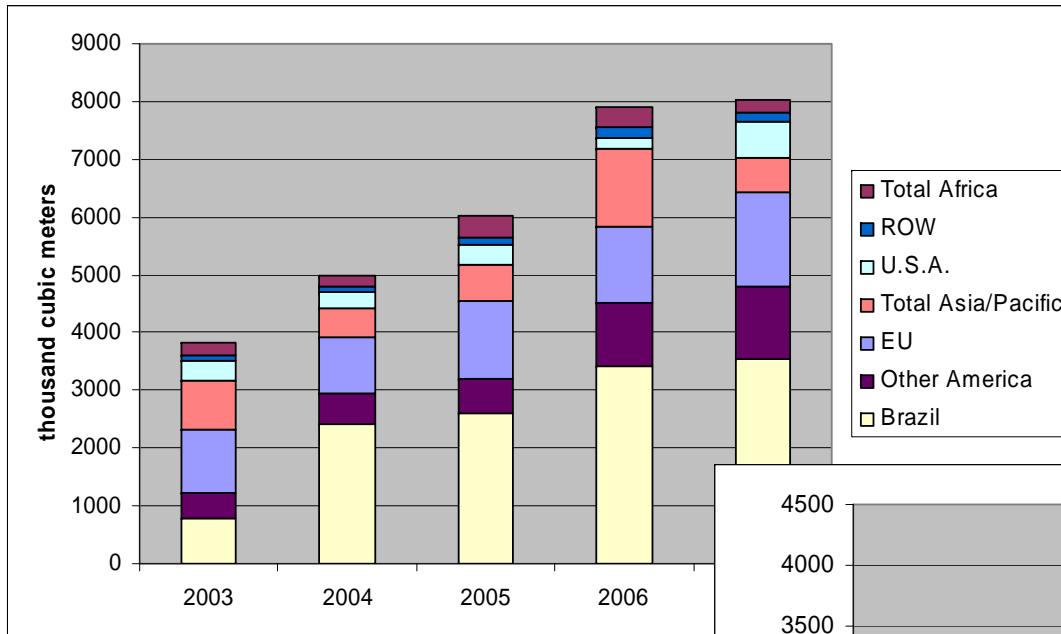
Ethanol is classified as an agricultural good and enjoys much higher tariff rates than biodiesel that is classified as an industrial good

	Import Duty Bioethanol	Import Duty Biodiesel
EU	<ul style="list-style-type: none"> • 0.192 €/liter (undenatured) • 0.102 €/liter (denatured) • 101 developing countries enjoy duty free access. Brazil is not among them (GSP, EBA, ACP) 	<ul style="list-style-type: none"> • 6.5% ad valorem • Major vegetable oil producers (e.g. ARG, IND, MLY) have duty-free access (covered under GSP)
USA	<ul style="list-style-type: none"> • 0.1427 US\$/l plus small ad valorem tariff (2.5% undenatured and 1.9% denatured) • Some countries in the region enjoy various forms of duty-free access (CBI, NAFTA, CAFTA) 	<ul style="list-style-type: none"> • 1.9% ad valorem
India	<ul style="list-style-type: none"> • 182% undenatured • 30% denatured • For use by chemical and petroleum industry: 10% • Rates not totally clear, many changes take place 	<ul style="list-style-type: none"> • 12.5% • Crude palm oil: 50%
Brazil	<ul style="list-style-type: none"> • 20% ad valorem (temporarily lifted, e.g. in February 2006 when sugar prices surged and ethanol shortage was possible) • Duty-free trade within Mercosur 	<ul style="list-style-type: none"> • n.a.

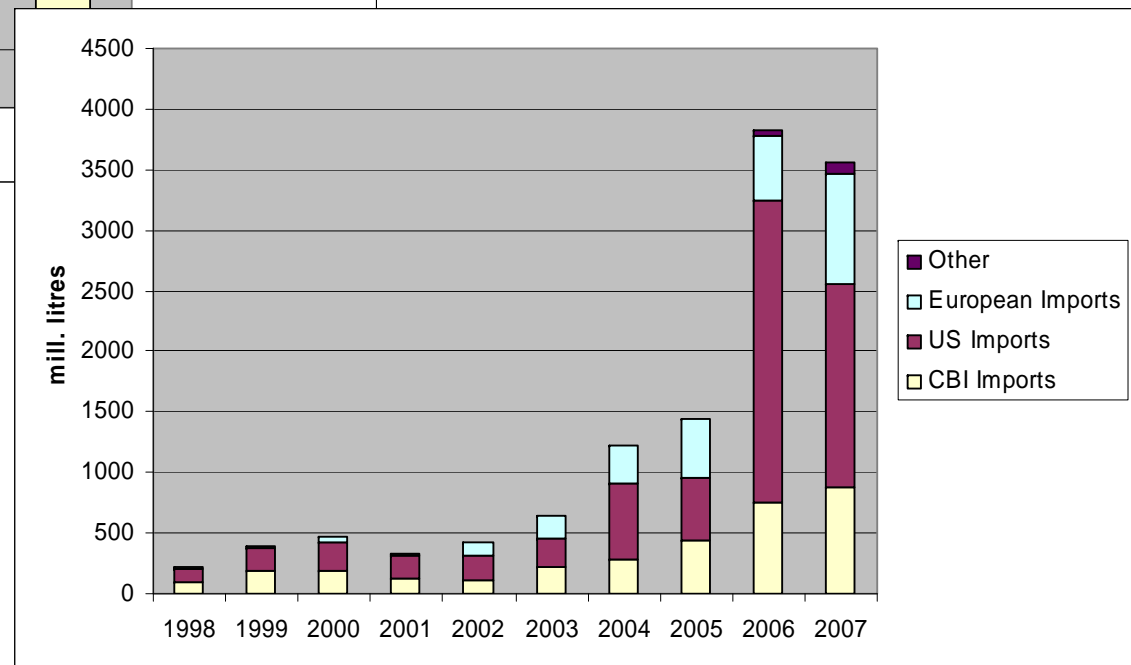
- Ethanol's agricultural classification allows countries that impose high tariff rates on ethanol more time to liberalize ethanol trade, protecting domestic producers longer



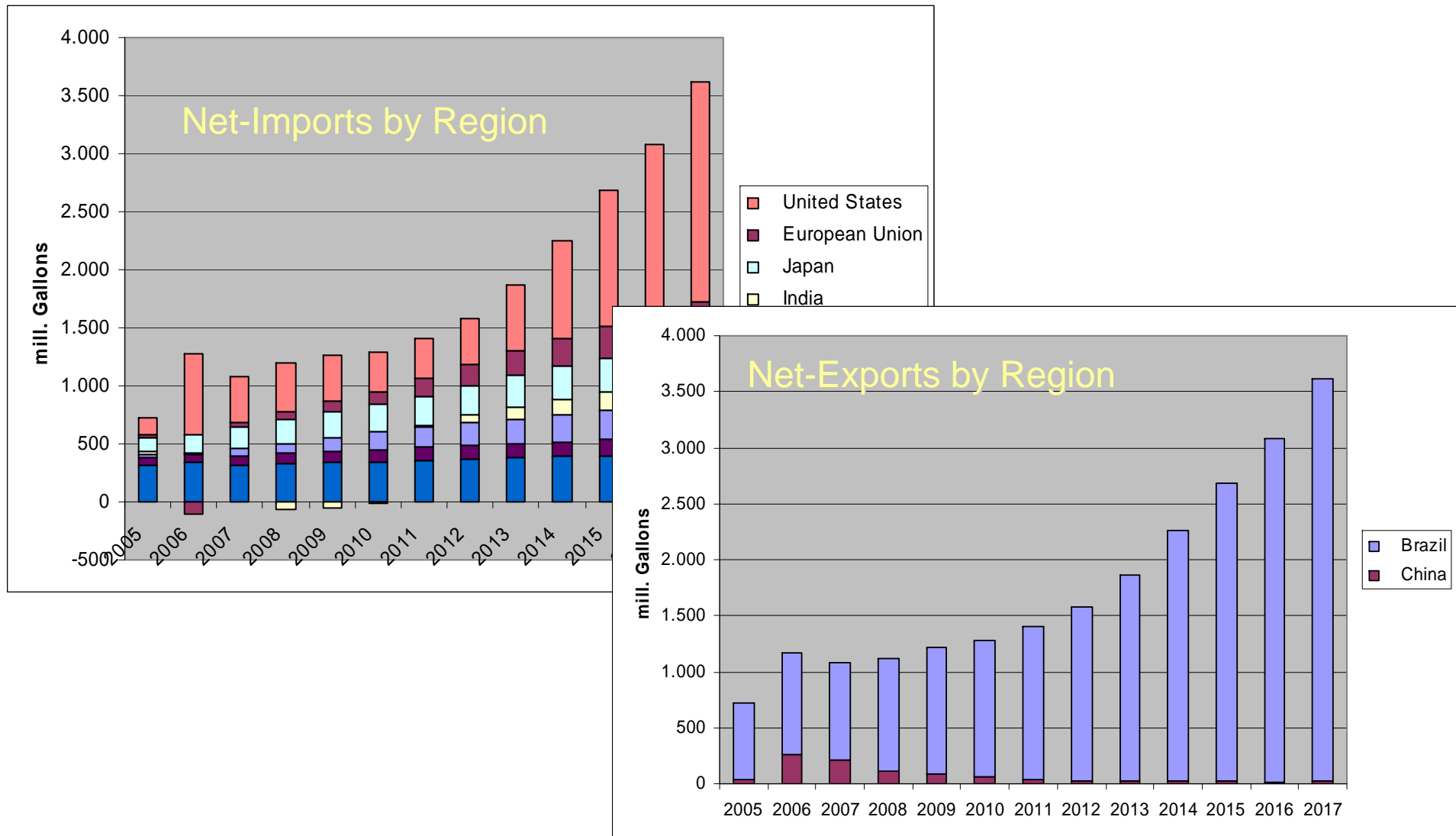
Exports by Region



Imports by Region

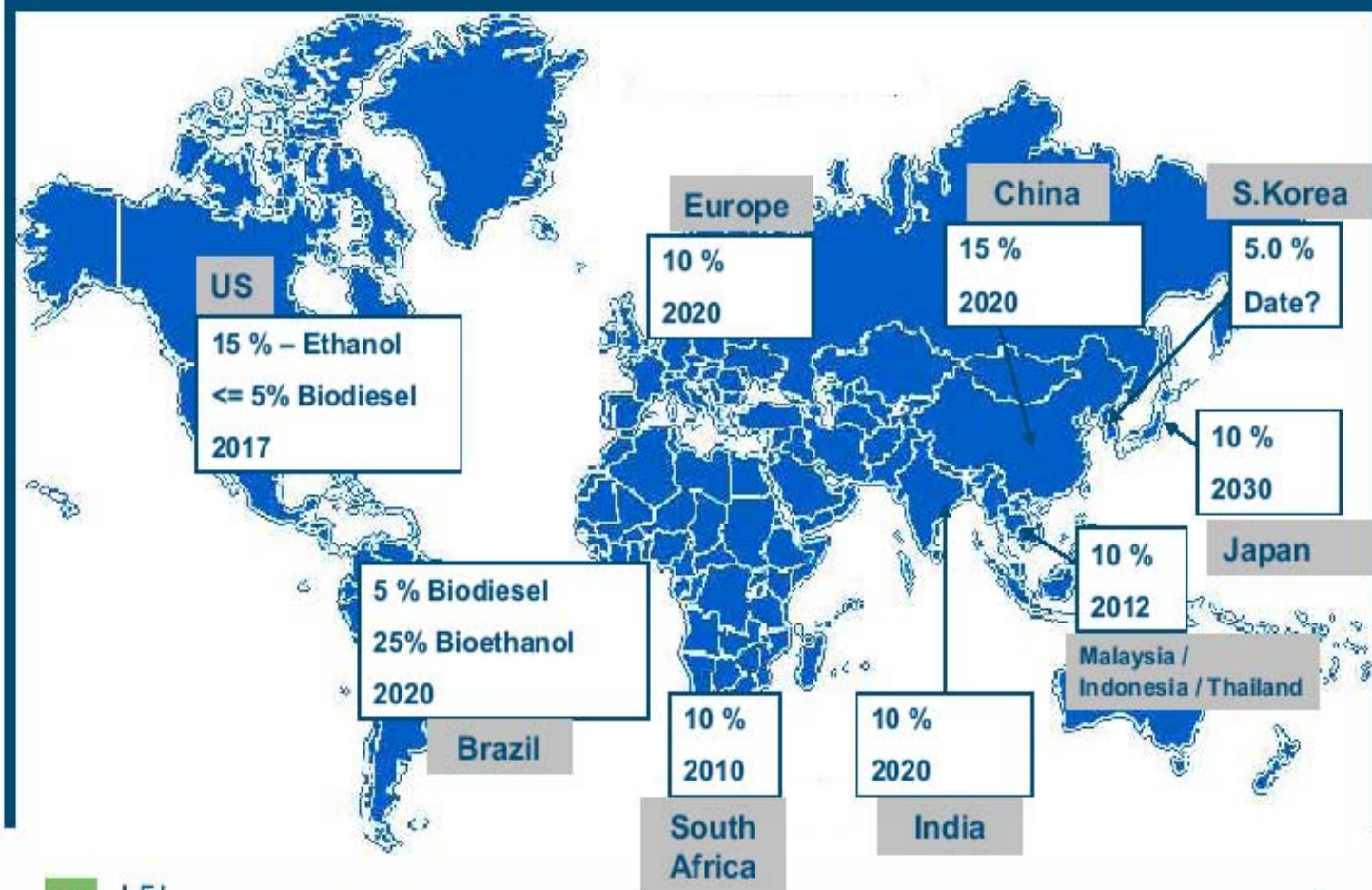


... and the forecast for the next decade (FAPRI)








Targets for Bio-fuels Worldwide

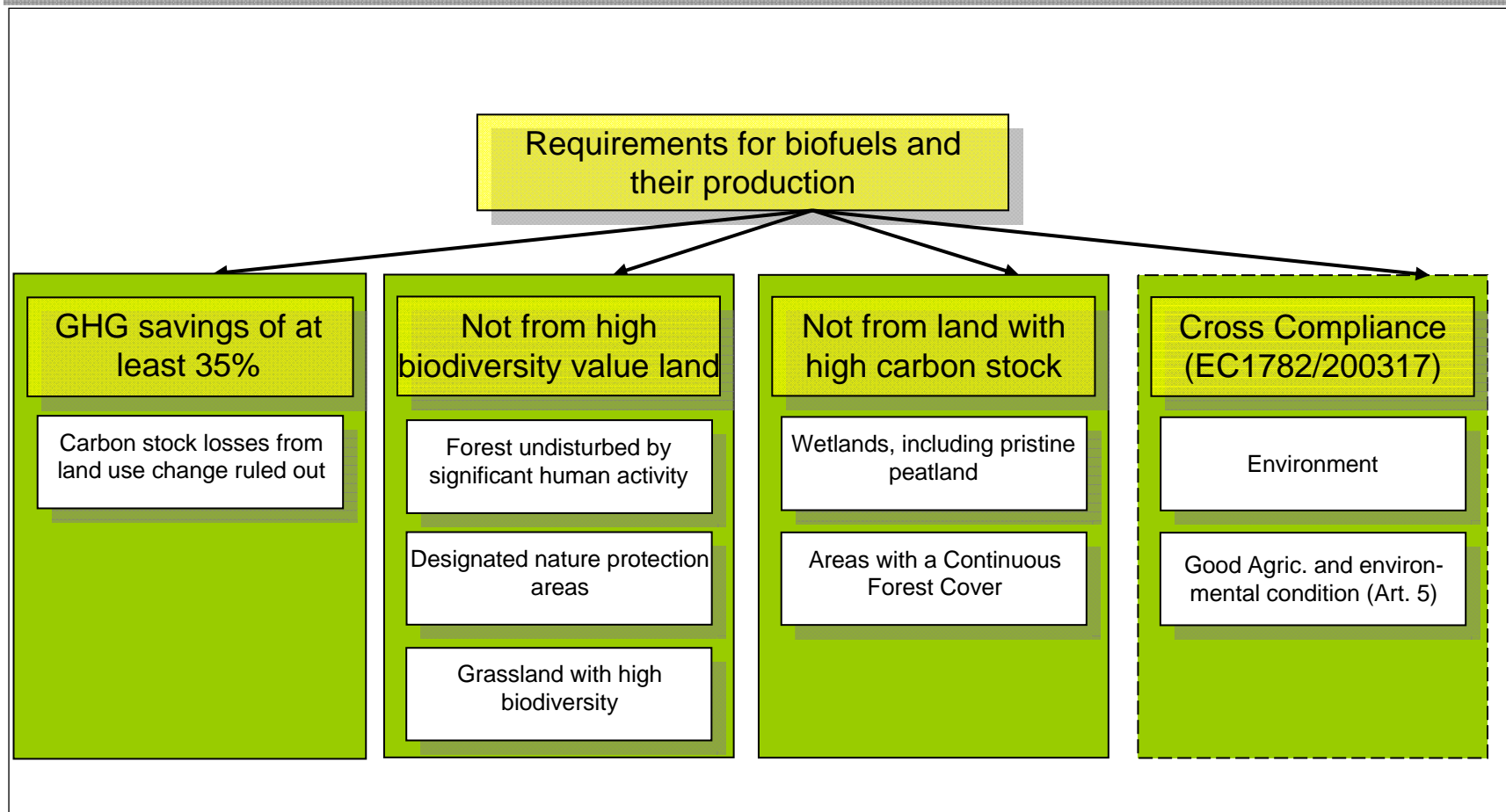


An internationally traded commodity such as bioethanol is homogeneous, i.e. it is not possible to judge the sustainability of a particular biofuel!

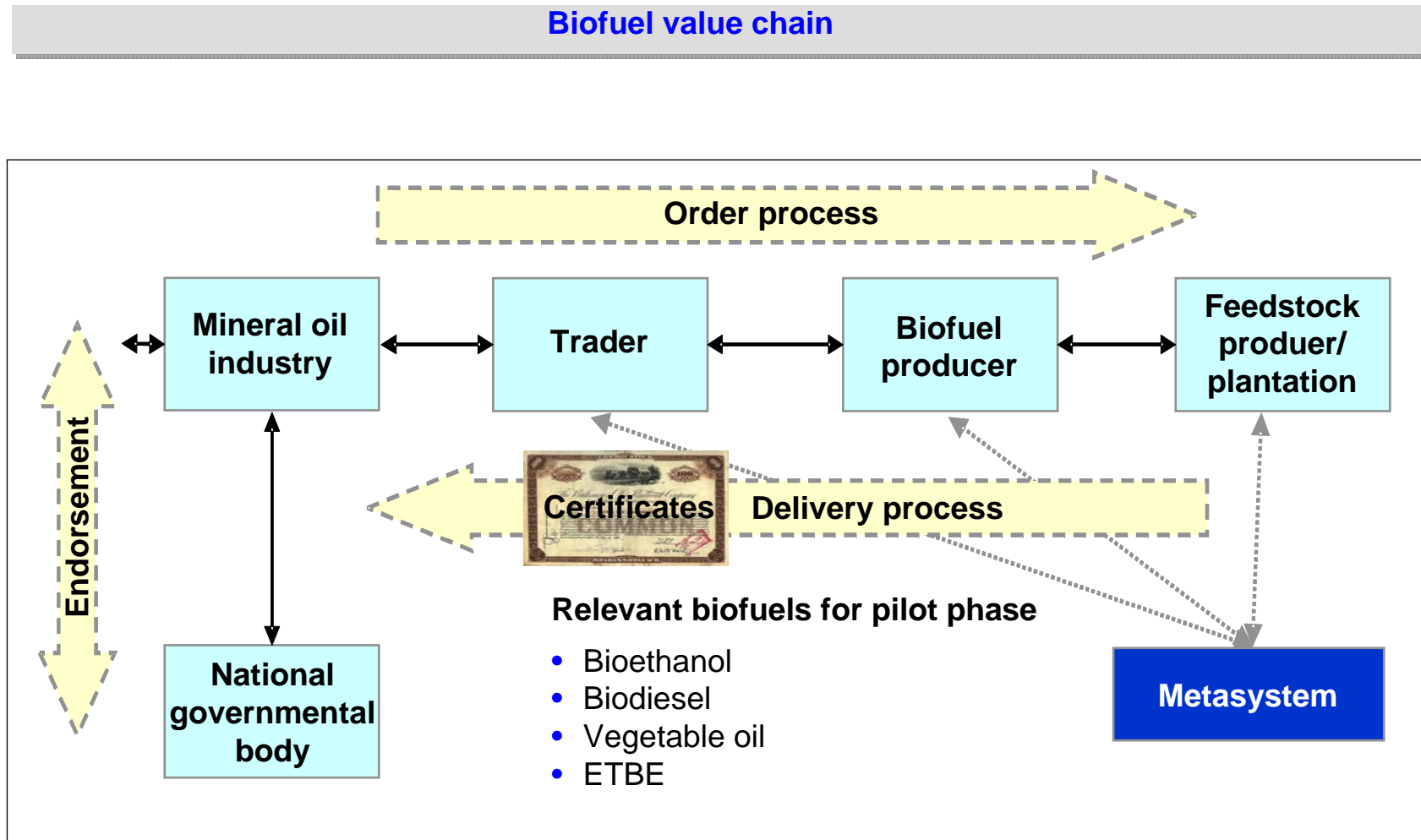
	 Fuel Quality Directive	 Renewable Energy Directive	 Biomass sustainability decree
GHG savings	<ul style="list-style-type: none"> – 10% GHG savings per unit of energy until 2020 (1% p.a. from 2011) – opposed by EU-Parliament 	<ul style="list-style-type: none"> – Proof of minimum GHG savings: 35% is necessary for accounting towards biofuel targets 	<ul style="list-style-type: none"> – Proof of minimum GHG savings: 30%/ 40% from 2011 – Otherwise no accounting on quota or tax reduction
Sustainable cultivation	<ul style="list-style-type: none"> – n.a. 	<ul style="list-style-type: none"> – Production according to environmental criteria of Cross Compliance (EC 1782/2003) 	<ul style="list-style-type: none"> – ^{possible} Cross Compliance/ Good Agricultural Practices or similar regulations – Otherwise compliance with certain regulation
Protection of natural habitats	<ul style="list-style-type: none"> – n.a. 	<ul style="list-style-type: none"> – No feedstocks from high biodiversity land, wetlands, untouched peatland, continuously forested areas 	<ul style="list-style-type: none"> – No cultivation in high nature value areas
Social sustainability	<ul style="list-style-type: none"> – n.a. (is being asked for in current discussions) 	<ul style="list-style-type: none"> – n.a. (is being asked for in current discussions) 	<ul style="list-style-type: none"> – n.a.

Certification Requirements:

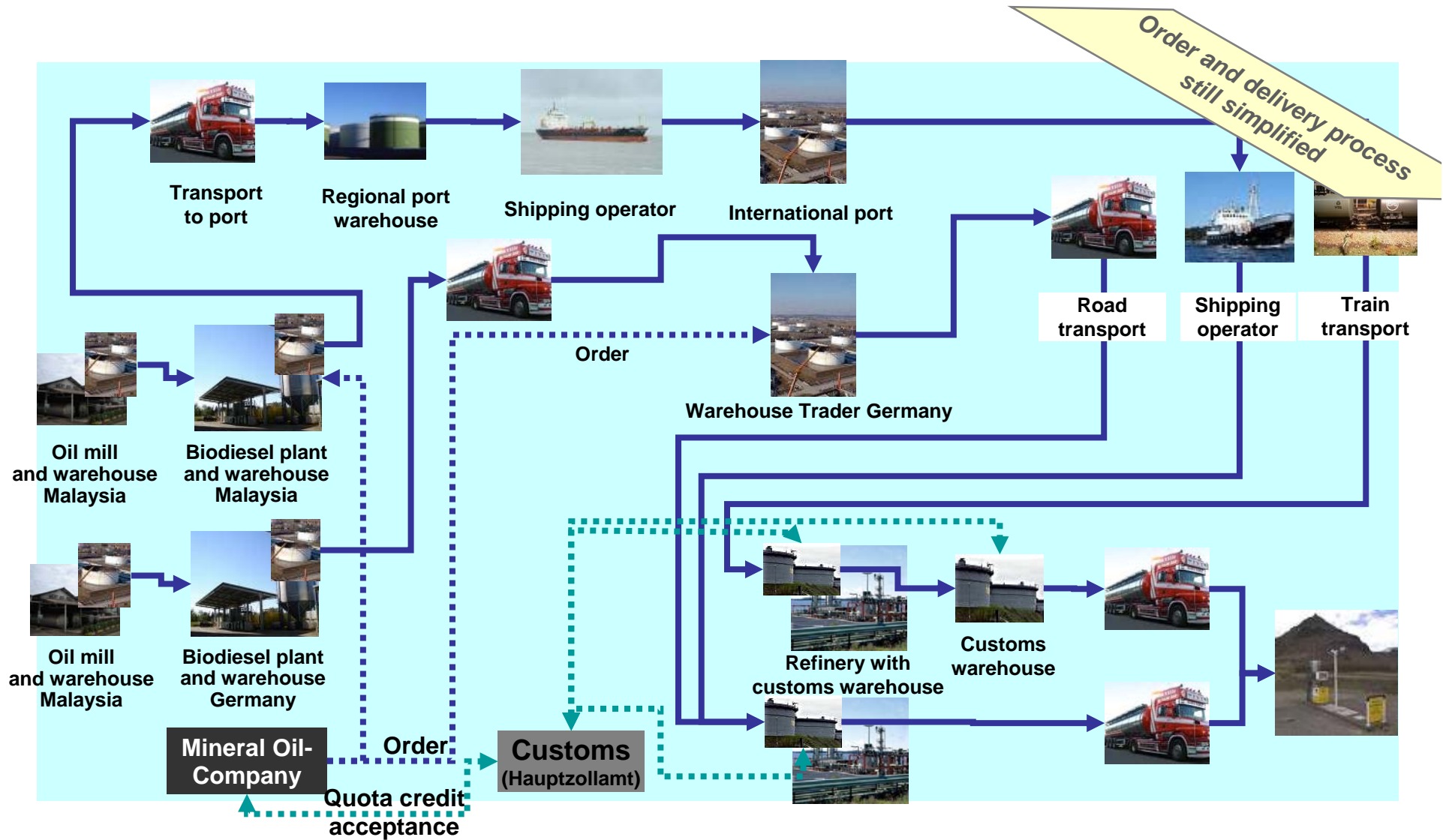
The EC proposal requires minimum GHG savings, the protection of certain land types and cross compliance



Certification of Biofuels in the Value Chain:



Real life has hardly any similarities with an idealised value chain





The project is online: www.iscc-project.org



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Our Objectives

Sustainable production of biofuels is important for economic and ecological reasons. We develop an international certification system to distinguish between sustainable and non-sustainable bio-energies.

→ CHALLENGE

Increasing production of bioenergies should never lead to unwanted change of land use.

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→ CONCEPT

Certification to ensure ecological and social standards with production and conversion of biomass.

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→ CERTIFICATION

Correction of market failures by challenging sustainable production and green house gas reduction.

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→ BIOENERGIES

Sustainable production of bioenergies as well as of biomasses for conventional use.

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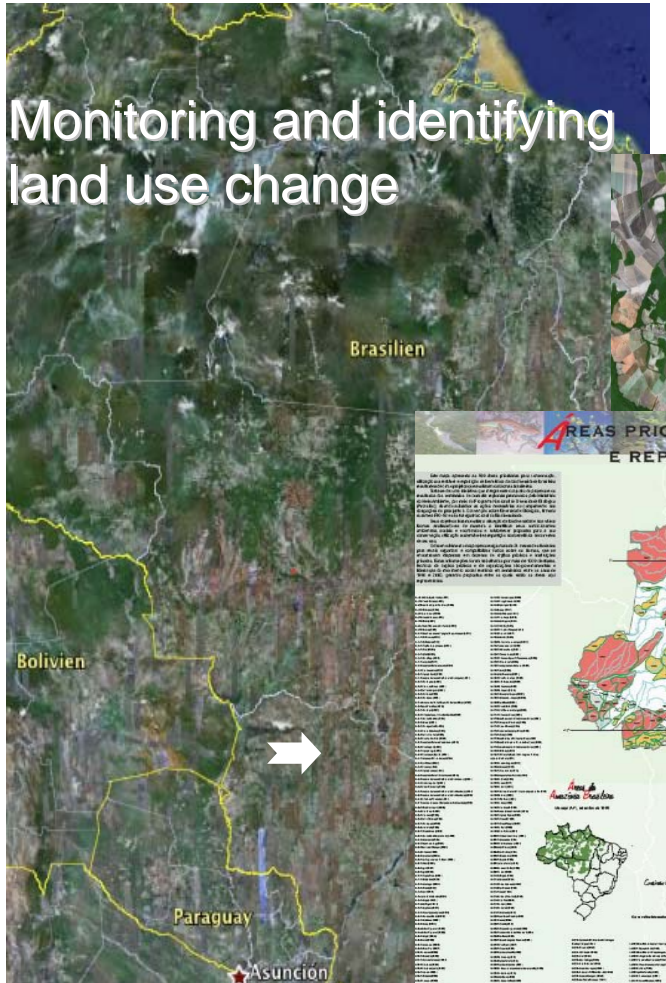
Meó Corporate
Development GmbH
Weissenburgstr. 53
D-50670 Koeln

Welcome to the ISCC Project

Due to the growing market relevance of biofuels and the increasing use of agricultural feedstock for their production, the discussion about sustainability has gained in importance.

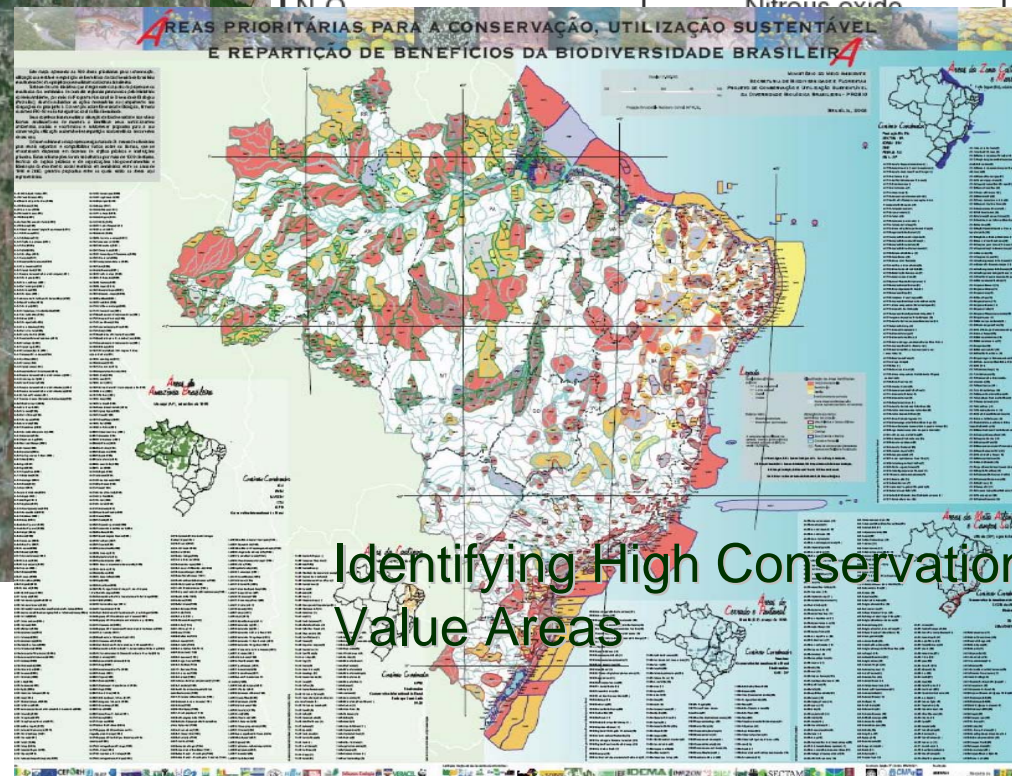


Monitoring and identifying
land use change



Assessing the emissions of non-CO₂ GHGs

Formula	Name	GWP
CO ₂	Carbon dioxide	1
CH ₄	Methane	25
N ₂ O	Nitrous oxide	298
		100 – 15.000



Identifying High Conservation
Value Areas