Export to Europe

Fuel for thought for Latam

10 September 2014

Porto Alegre, ISCC meeting

Index

1. Export to Eu as main business or as complement
2. Blending mandate EU changing
3. Not only Sustainable (RED) but also GHG savings %
4. Changing market environment
5. Europe will remain SHORT in ethanol and biofuels in coming years (2020)
6. Indirect Land Use Change (ILUC) debate
7. Some conclusions
8. ARGOS and ISCC

1. Export to EU as main business or as Complement

Export to EU

➢ **Latam:**

- **first ISCC certified volumes to obligatory EU fuel market, volantary market (food & feed) more difficult to develop.**

➢ **Brazilian fuel market goes with B7 closer to equilibrium with still some 25% overcapacity**

➢ **EU over time (2020) remains Biofuels short**

➢ **Price variations on both sides**

➢ **Different requirements and incentives:**

- **Selo familiar**
- **Incentives towards 2nd generation (from residue and waste)**
- **Double counting**
- **Export incentives (Brazil, Argentina etc.)**

➢ **Seasonal requirements opposit (winter vs summer specs)**

➢ **Logistics is important to decide to export**

➢ **Certification is required**

➢ **Currency impact**

✓ **You cannot build your LT business case on EU alone!**

2. Blending mandate in EU will be changing

The EU Biofuels Directive

Indicative targets for biofuels share in transport:

- 5,75% in 2010 From Kyoto protocol

The 20-20-20 targets for 2020

- 20% less GHG emissions (30% if global agreement)
- 20% renewable energy
- 20% reduction in primary energy use

The Renewable Energy Directive (RED)

- 20% Renewable energy in final energy consumption
- 10% renewable energy in final energy consumption in transport

The EU Biofuels Directive Cont'd

The Fuel Quality Directive

- 6% carbon intensity reduction of the fossil fuel chains

EU RED requirements for fuels:

- GHG 35% at least
- 50% from 2017
- 60% for new production facilities in 2018
- Default values and calculations method for actual values included

✓ minimum average 60% GHG savings products in fuels by 2020

✓ from default to calculated values.

3. Not only Sustainable (RED) but also Green House Gas (GHG) savings %

The EU goes towards GHG calculations

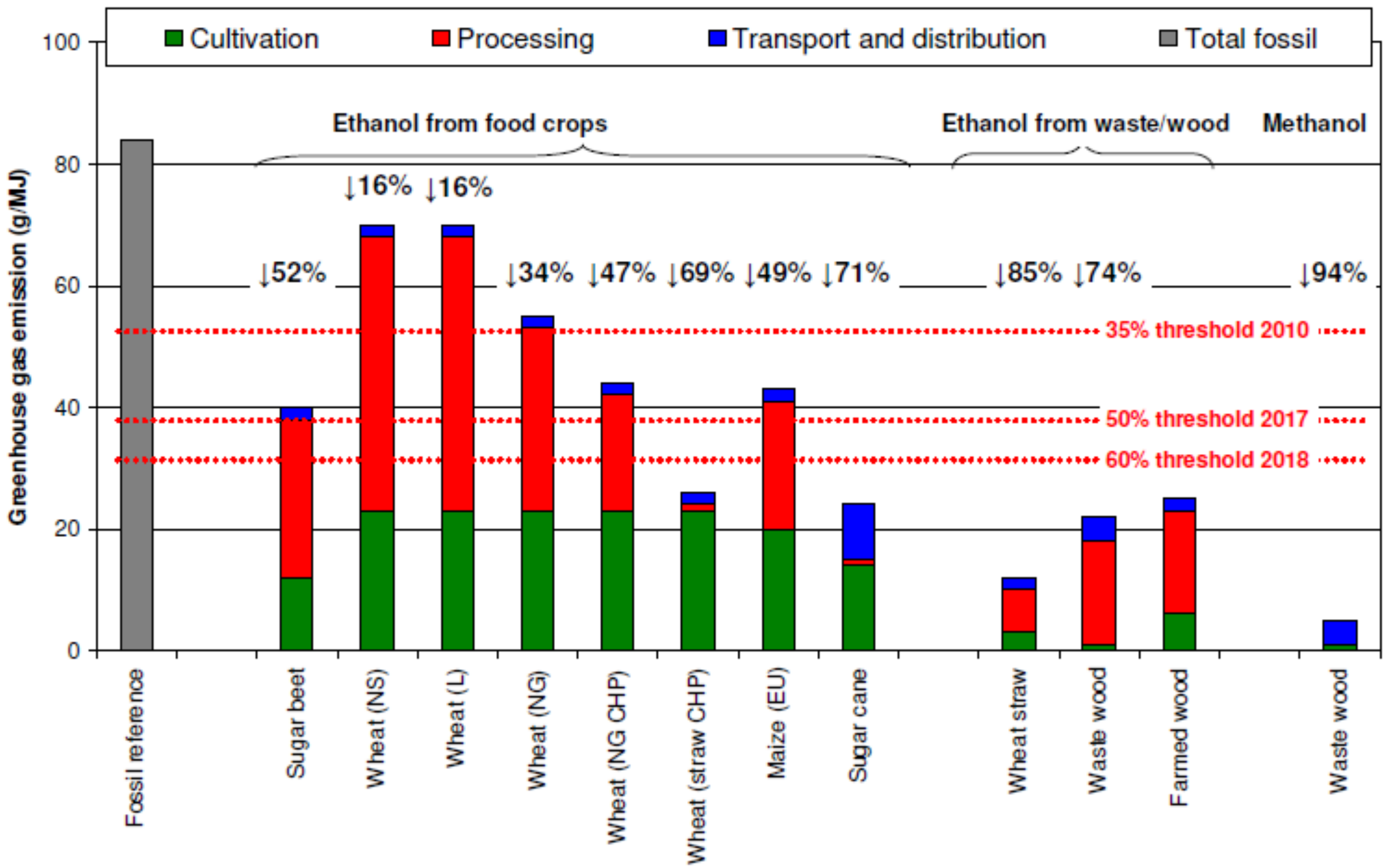
The Fuel Quality Directive

- 6% carbon intensity reduction of the fossil fuel chains
- 10% renewable energy in final energy consumption in transport

✓ minimum average 60% GHG savings products in fuels by 2020

The EU will start to differentiate between different GHG saving fuels. (e.g. Germany has announced it will stop double counting and start GCG saving requirements for distributors starting in beginning 2015)

✓ trend towards high GHG saving products: biodiesel from waste and residual material, sugarcane ethanol and 2nd generation ethanol



Cultivation
Processing
Transport and distribution
Total fossil
Greenhouse gas emission (g/MJ)
100
80
60
40
20
0
Ethanol from food crops
Ethanol from waste/wood
Methanol
↓16% ↓16%
↓52%
↓34% ↓47% ↓69% ↓49% ↓71%
↓85% ↓74%
↓94%
35% threshold 2010
50% threshold 2017
60% threshold 2018
Fossil reference
Sugar beet
Wheat (NS)
Wheat (L)
Wheat (NG)
Wheat (NG CHP)
Wheat (straw CHP)
Maize (EU)
Sugar cane
Wheat straw
Waste wood
Farmed wood
Waste wood

External Benchmark on 2012 performance of biofuel supplier to Dutch market

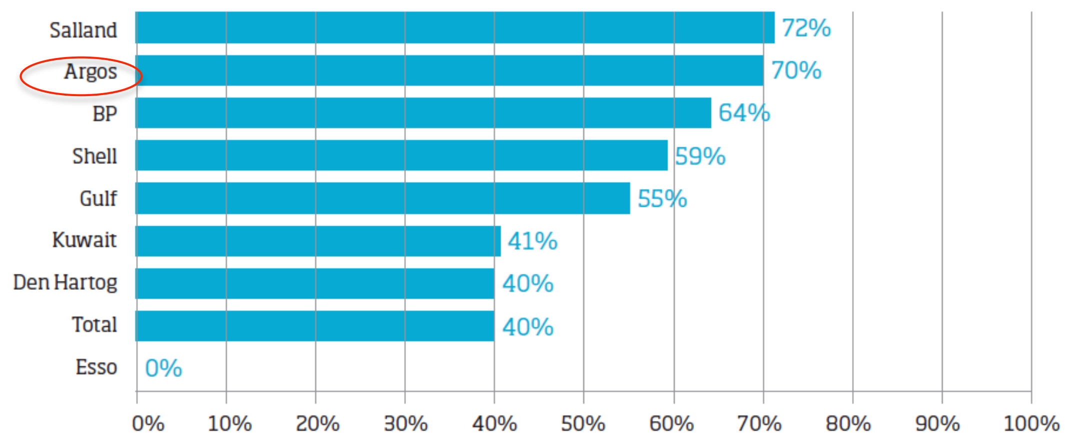
Dutch-based environmental NGO SNM Stichting Natuur & Milieu (Nature and Environment Foundation) ranked biofuel suppliers on the CO_2-reduction of biofuels in the Dutch market in 2011.

(additional information:

SNM has included the specific ILUC-factors mentioned in the October 2012 amendment proposal of the European Commission)

RANGLIJST OLIEMAATSCHAPPIJEN OP KLIMAATWINST BIOBRANDSTOFFEN

DE KLIMAATWINST DIE NEDERLAND REALISEERT DOOR DE INZET VAN BIOBRANDSTOFFEN IN HET WEGTRANSPORT VALT TEGEN. SOMMIGE OLIEMAATSCHAPPIJEN REALISEREN NIET OF NAUWELIJKS CO_2-REDUCTIE DOOR DE VERPLICHTE INZET VAN BIOBRANDSTOFFEN. DE DUURZAAMHEID VAN BIOBRANDSTOFFEN VERSCHILT STERK PER OLIEMAATSCHAPPIJ. DIT BLIJKT UIT EEN RANGLIJST VAN OLIEMAATSCHAPPIJEN DIE NATUUR & MILIEU HEEFT OPGESTELD OP BASIS VAN EEN ONDERZOEK VAN CE DELFT.



Ranglijst van de verschillende oliemaatschappijen op basis van de gemiddelde CO_2-besparing van biobrandstoffen (ten opzichte van benzine en diesel) die verkocht worden op de Nederlandse markt.
Bron: CE Delft, Biofuels on the Dutch market, februari 2013

4. Changing market environment

Export to EU:

The European Union has deleted several countries from its GSP beneficial status list as of January 2014.

Other countries will continue in general on the so-called GSP list EXCEPT for ethanol (2 more years)

Biodiesel into Eu is presently taxed at 6,5% for some Latam countries and others at 0%.

Export incentives:

Brazil recently issued MP 651 to reinstall Reintegra (devolva % de receita gerado por exportacao e os compensa por tributos indiretos.)

Fiscal Over-incentives can lead to protective measures, e.g. Malaysia and Argentina.

Double counting for biofuels made out of waste & residue in several EU countries, but each country differently.

(But Germany will stop double counting by the end of this year.)

Argos

	UCO	Tallow CAT I/II	tallowCAT III	Market terms	Documents to provide
Germany				From 2012, biofuels made from animal fats or animal oil (total or partial) are not countable towards the bio quota. To be replaced by carbon footprint quotas for biofuel production by 2015	WTN, Nabisy, ISCC DE, Declaration from the German producer § 7 der 36. BImSchV, POS
Portugal				From July 2014 need to provide an auditable self-declaration or a voluntary scheme certificate regarding the feedstocks	Auditable self-declaration, voluntary scheme certificate or ISCC PoS
Belgium	na	na	na	Under development, announcement 2014	
Denmark					
Spain	na	na	Na	Under development (discussion about the definition of waste and residue), might not be implemented during 2014	
UK				Regular application of the right to audit the collection of UCO from the restaurant for the production of biodiesel	WTN, ISCC, POS, Auditing of the entire supply chain of feedstock
France				Limit of 5% in 2013, The quota for double-counting is expected to increase from 0,35% to 0,5% for 2014, announcement during Q4	WTN, ISCC/2BSvs, POS, producer registration with the Ministry of Sustainable Development
Hungary					ISCC EU certification, POS
Ireland				UCO is counted double since mid-2011, Category 1 fat counted double since December 2011	ISCC EU certification, POS
Italy				From 2013, obligated parties under the Italian biofuel quota can meet up to 20% of their annual quota certificate requirement with biofuel qualifying for doubling counting. Constraint on the European origin for the feedstock	WTN, ISCC/2BSvs, POS, declaration from the producer that UCO is produced in Europe
Netherlands				More than 50% of the total biodiesel sold in the Netherlands is based on wastes and residues	WTN, ISCC, POS, Dutch Double-Counting Verification

5. Europe will remain SHORT in ethanol and biofuels in coming years (2020)

Future European supply and demand

Estimated Biofuels demand by 2020

Ethanol 12 billion liter

Biodiesel 23 billion liter

Estimated Installed capacity by 2020

Capacity (as viewed per 2013):

ethanol: 7,3 billion liter

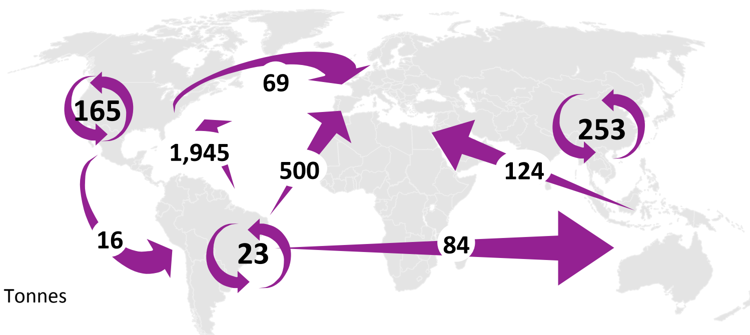
biodiesel: 21,9 billion liter

>Short of 4,7 billion liters Ethanol

>Short in Biodiesel of 1,1 billions liters

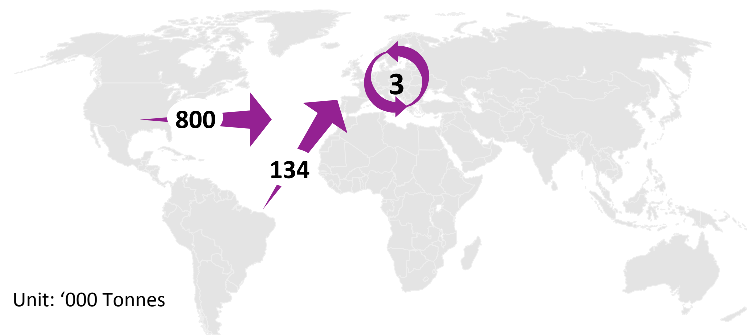
GOING FORWARD, BIOFUELS TRADE FLOWS WILL INCREASE SIGNIFICANTLY

Major Global Ethanol Trade Flows 2007



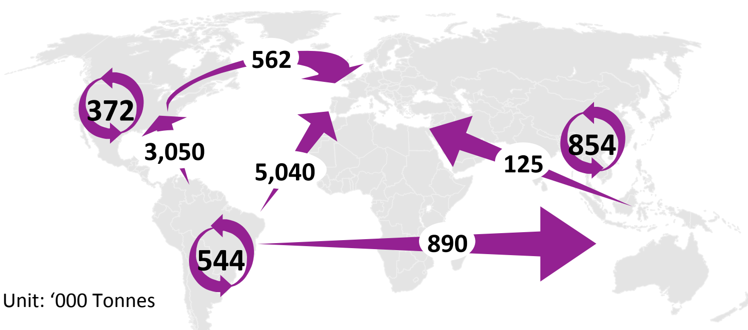
Unit: '000 Tonnes

Major Global Biodiesel Trade Flows 2007



Unit: '000 Tonnes

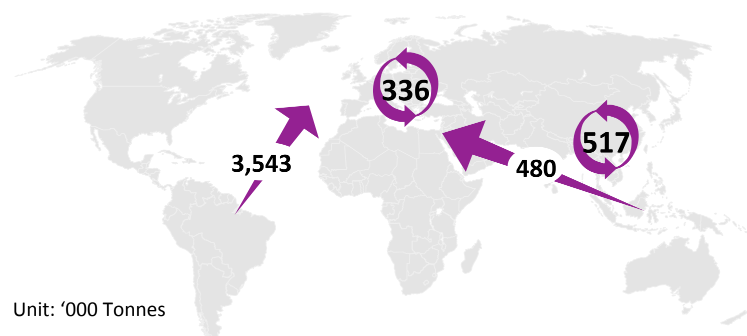
Major Global Ethanol Trade Flows 2020



Unit: '000 Tonnes

Source: WoodMackenzie

Major Global Biodiesel Trade Flows 2020



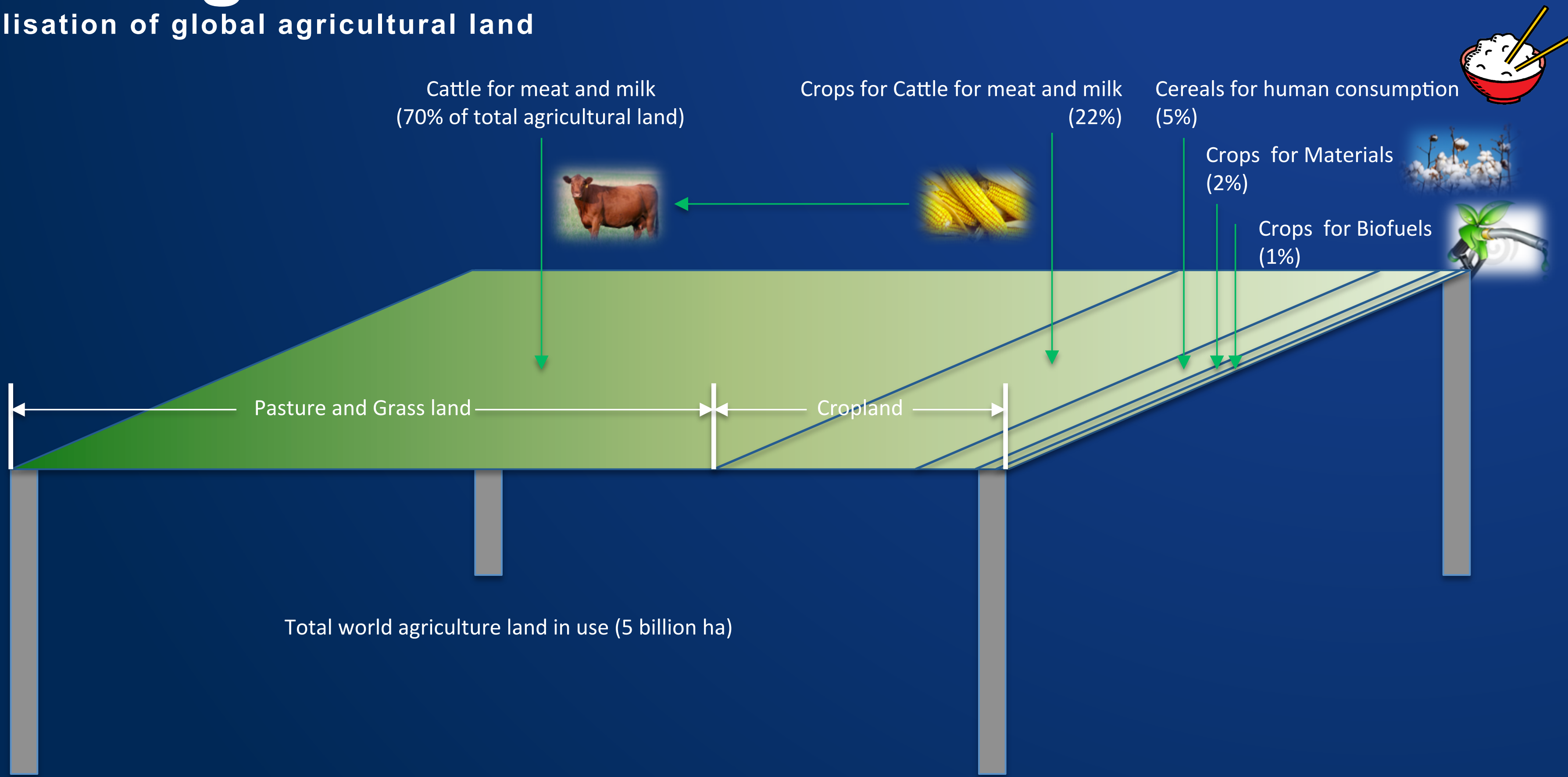
Unit: '000 Tonnes

Source: WoodMackenzie

3. Indirect Land Use Change (ILUC) debate and Fuel sector impact.

The Agriculture Table

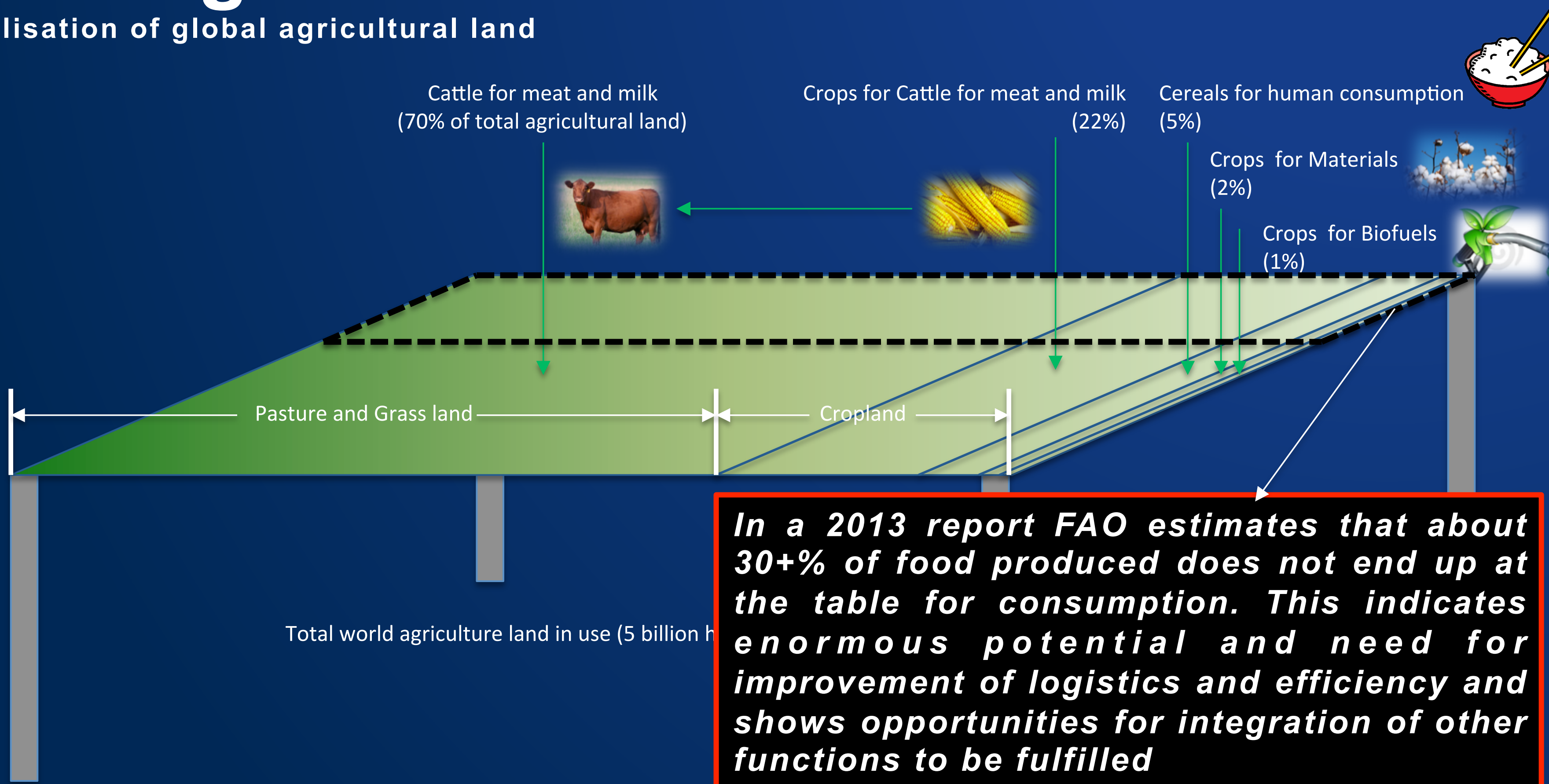
utilisation of global agricultural land



Source: Argos. Based on figures in: [Shell Deutschland Oil – Biofuels: what role in the future energy mix?, 2012]

The Agriculture Table

utilisation of global agricultural land



In a 2013 report FAO estimates that about 30+% of food produced does not end up at the table for consumption. This indicates enormous potential and need for improvement of logistics and efficiency and shows opportunities for integration of other functions to be fulfilled

Source: Argos. Based on figures in: [Shell Deutschland Oil – Biofuels: what role in the future energy mix?, 2012]

6. Some Conclusions

SOME CONCLUSIONS

- EU Trend towards sustainability is going to continue
- Export to the EU from Latam not as main business but as complement and partial alternative
- EU Mandate will continue to increase both in % and in quality (GHG savings)
- High GHG saving bio-fuels will have preference
- Arbitrage possibilities between different markets local vs EU (double counting / Volume vs GHG / Selo familiar)
- Biodiesel with High GHG (TME and UCOME), Sugar cane and 2nd generation ethanol will gain importance and most likely in value.
- For some countries exports to EU drastically changed due to antidumping tarifs. (opportunity for Brazil)
- Europe will not be self sufficient in Ethanol and probably Biodiesel production (short of approx. 5 mln per year by 2020) and Latam might play key role to fill the gap.

ARGOS and ISCC

Largest independent distribution company in Western Europe

with target to be best in class in bio fuels

About Argos

Argos

Largest independent oil company in Western Europe

Facts & Figures

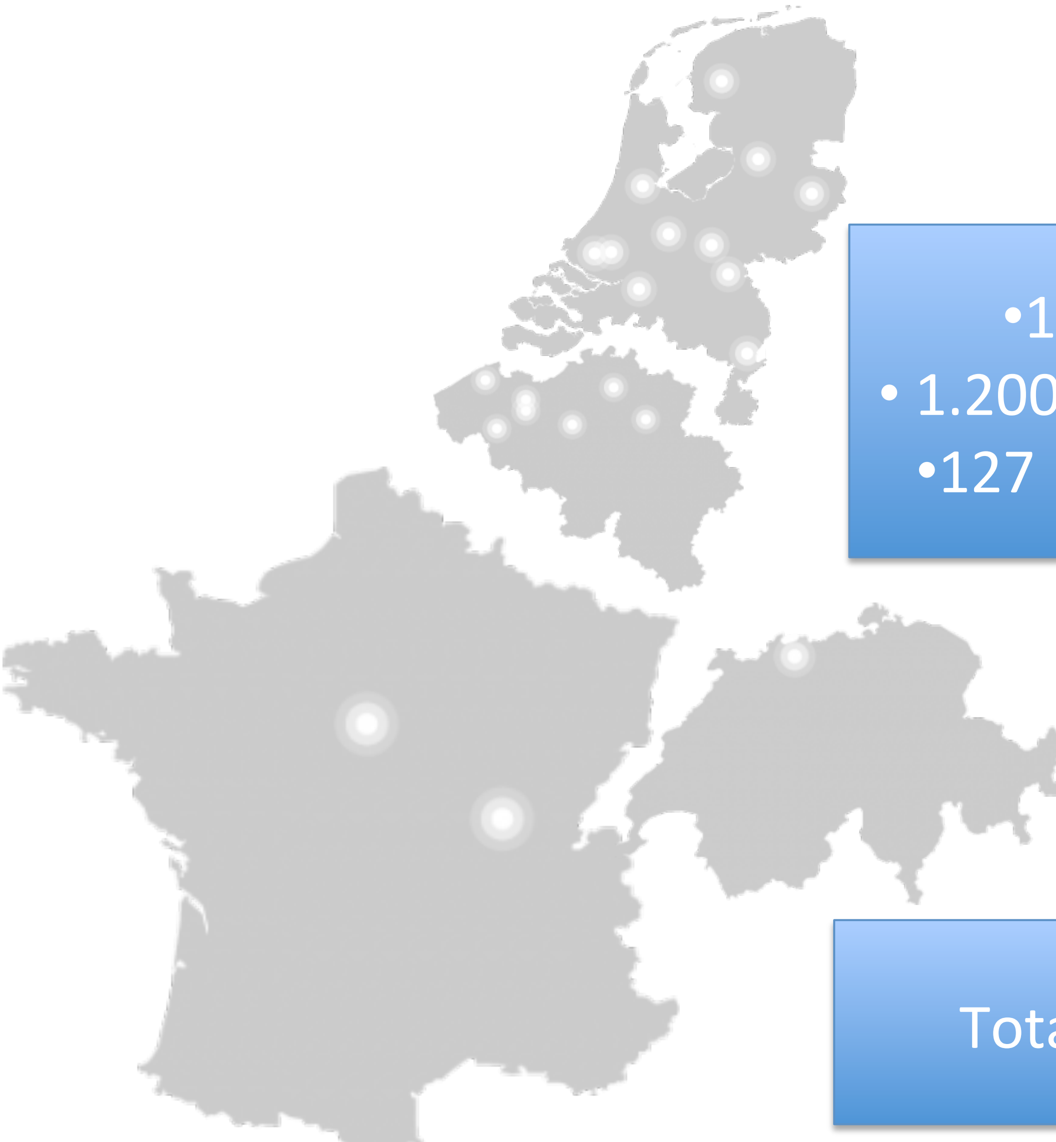
NET TURNOVER	▸	€16.0 BILLION
GROSS PROFIT	▸	€163 MILLION
M^3 LITERS OF FUEL	▸	17.5 MILLION
PETROL STATIONS	▸	100+
M^3 STORAGE	▸	1.250 MILLION
ACTIVE IN	▸	10 COUNTRIES
NO. OF EMPLOYEES	▸	690 FTE

Europe
- The Netherlands
- Belgium
- Luxemburg
- France
- Germany
- Switzerland
- Hungary
- Monaco

Africa
- Tunisia
- Nigeria

South America
- Brazil

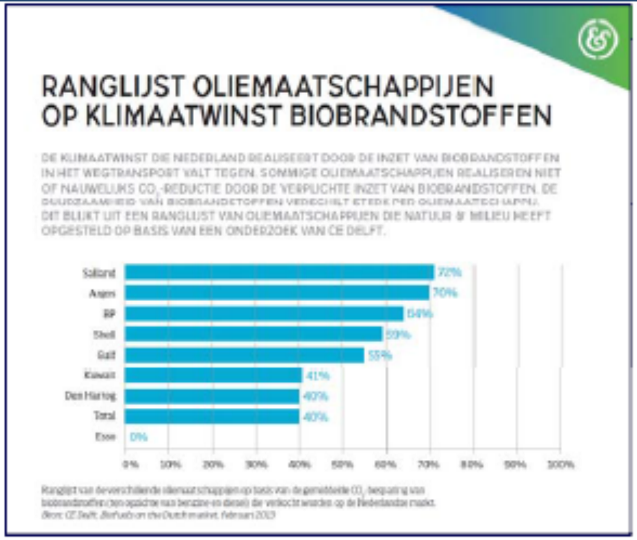
Asia
- Shanghai
- Hong Kong
- Singapore



•19 distribution terminals
• 1.2000.000 liters storage capacity
•127 vessel under management

Total system ISCC certified

Frontrunner



ISCC

Argos

✓Partnerships with biodiesel producers for ISCC certification (e.g. Fugo Couros).

✓Biosantos - One of the first Brazilian UCO gathering points ISCC certif.

SkyNRG

Sky Energy | The Fuel Future

✓ Market leader in Renewable jet fuel

BEST IN CLASS

BIOFUELS

- ✓ GHG emission reduction > 70%
- ✓ Feedstock selection
  - ✓ Waste
  - ✓ Residues and by-products
  - ✓ Non-food
  - ✓ Cellulosic
- ✓ Low land use
- ✓ Socially responsible

BONSUCRO™

- ✓ 1st to be **Bonsucro certified** in the EU
- ✓ 1st to **Import** Bonsucro ethanol into the EU

In NL

- ✓ 1st to supply E85
- ✓ 1st to blend Fame

Argos decided to certify all our terminals and administration systems ISCC

- ISCC good scheme and workable.

- We receive products with other certifications and ISCC can absorp these. RTRS, RPO, Bonsucro, RSB, 2BS, etc. this is big benefit for EU distributors and traders.

- Be carefull as you need to have whole chain certified: Argos Group has ISCC certification in place from your Brazilian “Ex-works” to inland North West Europe upto Swiss border. Included in ISCC scope 6 brazilian independent (mainly port) warehouses.

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