Export to Europe
Fuel for thought for Latam

10 September 2014
Porto Alegre, ISCC meeting
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, voluntary 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 opposite (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

(additional information: SNM has included the specific ILUC-factors mentioned in the October 2012 amendment proposal of the European Commission)
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.)
<table>
<thead>
<tr>
<th>Country</th>
<th>UCO</th>
<th>Tallow CAT I/II</th>
<th>Tallow CAT III</th>
<th>Market terms</th>
<th>Documents to provide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td></td>
<td></td>
<td></td>
<td>From 2012, biofuels made from animal fats or animal oil (total or partial) are not countable towards the bio quota.</td>
<td>WTN, Nabisy, ISCC DE, Declaration from the German producer § 7 der 36. BImSchV, POS</td>
</tr>
<tr>
<td>Portugal</td>
<td></td>
<td></td>
<td></td>
<td>To be replaced by carbon footprint quotas for biofuel production by 2015</td>
<td>Auditable self-declaration, voluntary scheme certificate or ISCC PoS</td>
</tr>
<tr>
<td>Belgium</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>Under development, announcement 2014</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Spain</td>
<td>na</td>
<td>na</td>
<td>Na</td>
<td>Under development (discussion about the definition of waste and residue), might not be implemented during 2014</td>
<td>WTN, ISCC, POS, Auditing of the entire supply chain of feedstock</td>
</tr>
<tr>
<td>UK</td>
<td></td>
<td></td>
<td></td>
<td>Regular application of the right to audit the collection of UCO from the restaurant for the production of biodiesel</td>
<td>WTN, ISCC/2BSvs, POS, producer registration with the Ministry of Sustainable Development</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td></td>
<td></td>
<td>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</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td></td>
<td></td>
<td></td>
<td>UCO is counted double since mid-2011, Category 1 fat counted double since December 2011</td>
<td>ISCC EU certification, POS</td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ISCC EU certification, POS</td>
</tr>
<tr>
<td>Italy</td>
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<td>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</td>
<td>WTN, ISCC/2BSvs, POS, declaration from the producer that UCO is produced in Europe</td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td></td>
<td></td>
<td>More than 50% of the total biodiesel sold in the Netherlands is based on wastes and residues</td>
<td>WTN, ISCC, POS, Dutch Double-Counting Verification</td>
</tr>
</tbody>
</table>
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

- 165
- 69
- 23
- 16
- 253
- 1,945
- 500
- 124
- 84

Unit: '000 Tonnes

Major Global Biodiesel Trade Flows 2007

- 3
- 800
- 134

Unit: '000 Tonnes

Major Global Ethanol Trade Flows 2020

- 372
- 562
- 3,050
- 125
- 854
- 5,040
- 890
- 544

Unit: '000 Tonnes

Major Global Biodiesel Trade Flows 2020

- 3,543
- 336
- 480
- 517

Unit: '000 Tonnes

Source: WoodMackenzie
3. Indirect Land Use Change (ILUC) debate and Fuel sector impact.
The Agriculture Table
utilisation of global agricultural land

Cattle for meat and milk (70% of total agricultural land)
Cropland
Crops for Cattle for meat and milk (22%)
Pasture and Grass land
Cereals for human consumption (5%)
Crops for Materials (2%)
Crops for Biofuels (1%)

Total world agriculture land in use (5 billion ha)

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 tariffs. (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

Largest independent oil company in Western Europe

Facts & Figures

- **NET TURNOVER**: €16.0 BILLION
- **GROSS PROFIT**: €163 MILLION
- **M³ LITERS OF FUEL**: 17.5 MILLION
- **PETROL STATIONS**: 100+
- **M³ STORAGE**: 1.250 MILLION
- **ACTIVE IN**: 10 COUNTRIES
- **NO. OF EMPLOYEES**: 690 FTE

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

South America
- Brazil

Asia
- Shanghai
- Hong Kong
- Singapore
• 19 distribution terminals
• 1,200,000 liters storage capacity
• 127 vehicles under management

Total system ISCC certified
Partnerships with biodiesel producers for ISCC certification (e.g. Fugo Couros).

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

Market leader in Renewable jet fuel

1st to be Bonsucro certified in the EU

1st to import Bonsucro ethanol into the EU

1st to supply E85

1st to blend Fame

GHG emission reduction > 70%
Feedstock selection
- Waste
- Residues and by-products
- Non-food
- Cellulosic
Low land use
Socially responsible
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 absorb these. RTRS, RPO, Bonsucro, RSB, 2BS, etc. this is big benefit for EU distributors and traders.

• Be careful 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.
Regional presence: Argos Brasil Ltda.

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