



# Sustainability

## EU Renewable Energy Criteria

IGTC, Market Access Workshop

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Gloria Gabellini - Policy Advisor, COCERAL

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# Sustainability in Europe

## What does it mean?

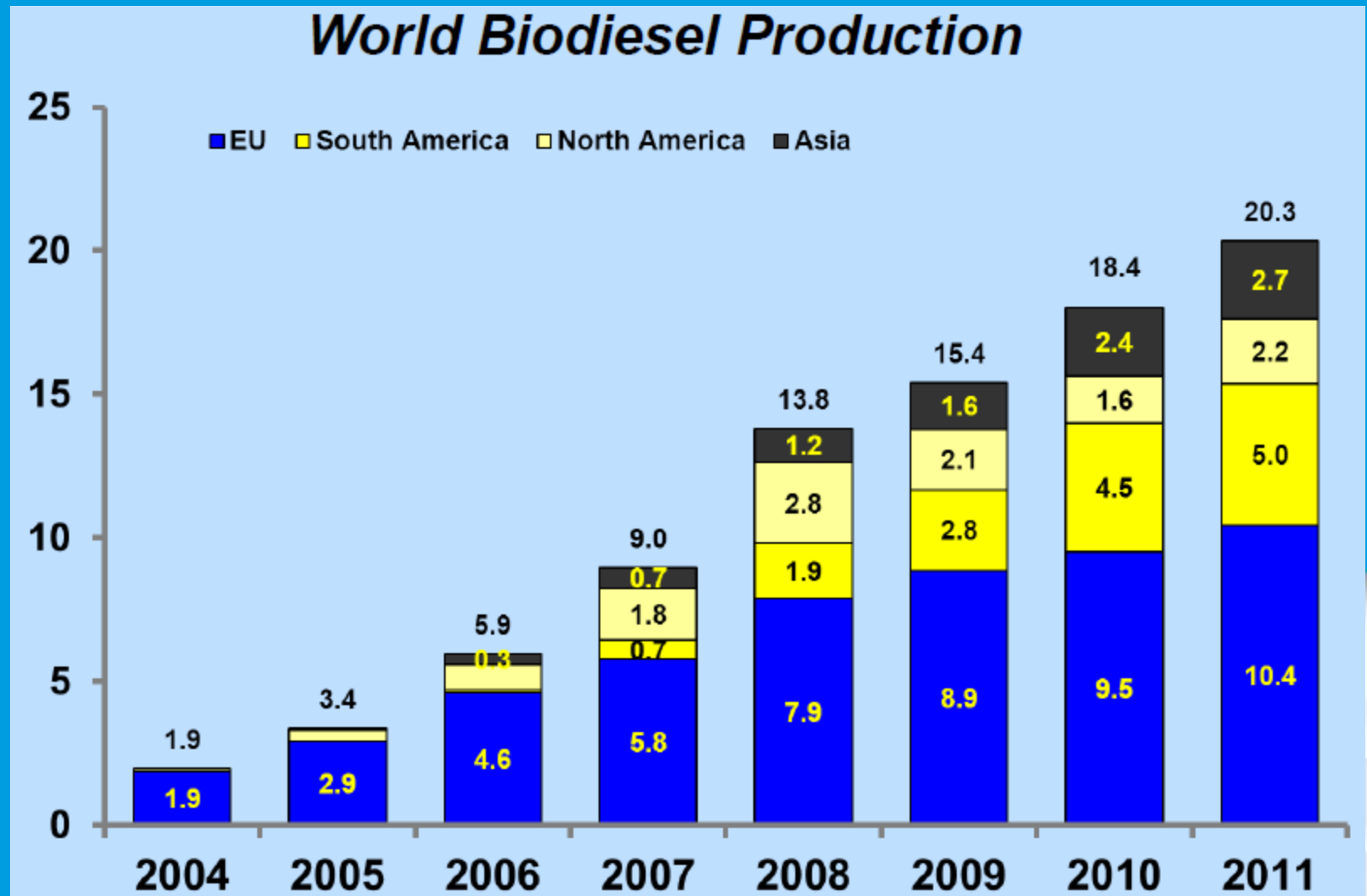
- **Regulatory initiatives:**
  - Renewable Energies Directive
  - Fuel Quality Directive
- **Voluntary initiatives by the industry**
  - Roundtable on sustainable consumption and production



# EU Legislative Framework for biofuels and sustainability

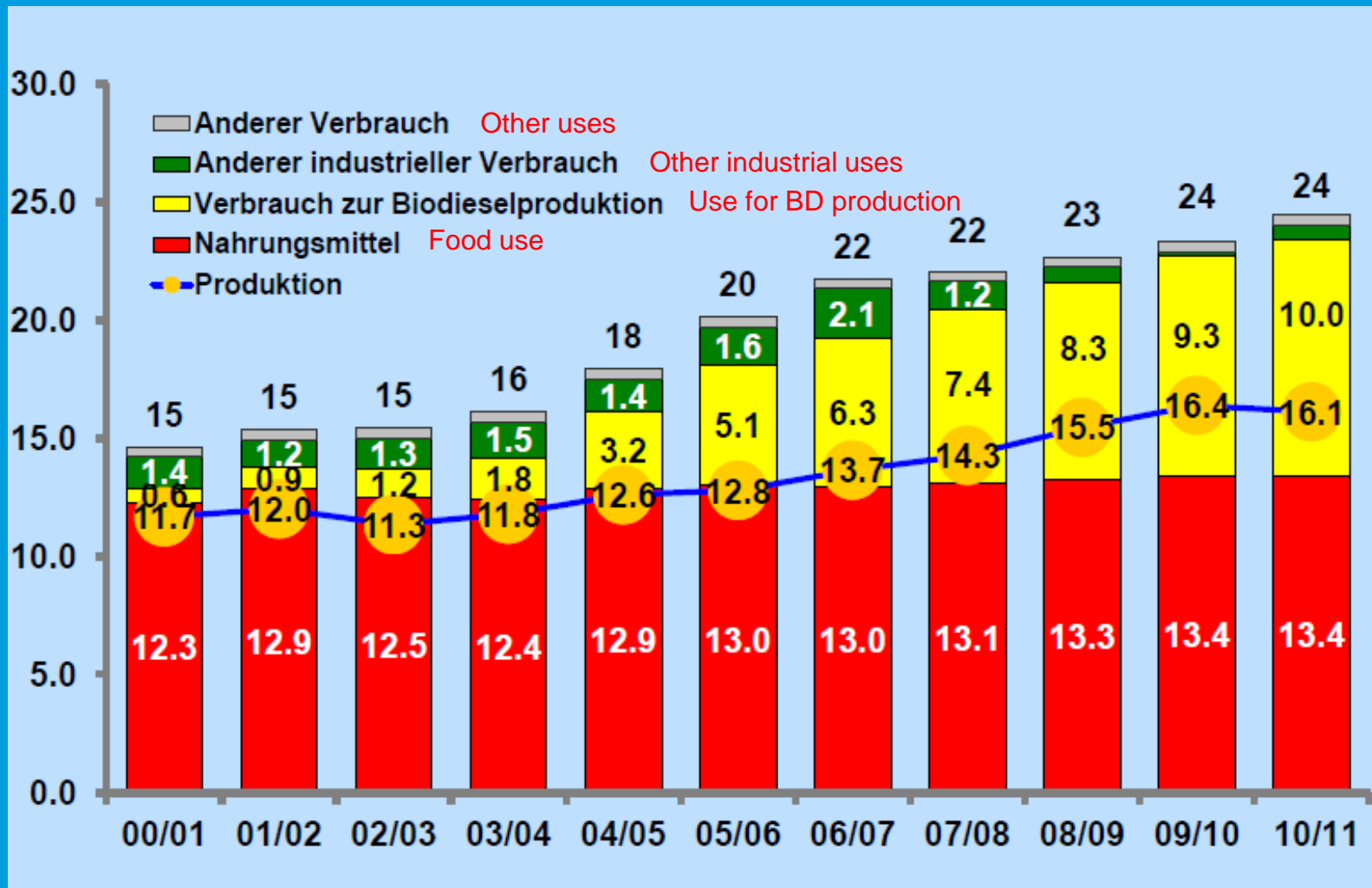
- Directive 2009/28 [Renewable Energies Directive] sets EU targets for renewable energies by 2020:
  - 20% share of energy from renewable energies
  - 10% share of renewable energies in transport
- Compliance with sustainability criteria is necessary condition for biofuels to account toward the 10% target
- Directive 2009/30 [Fuel Quality Directive] sets environmental specifications for fossil fuels
  - 6% reduction of GHG emissions by 2020 for fossil fuels

# World Biodiesel Production (mio t)

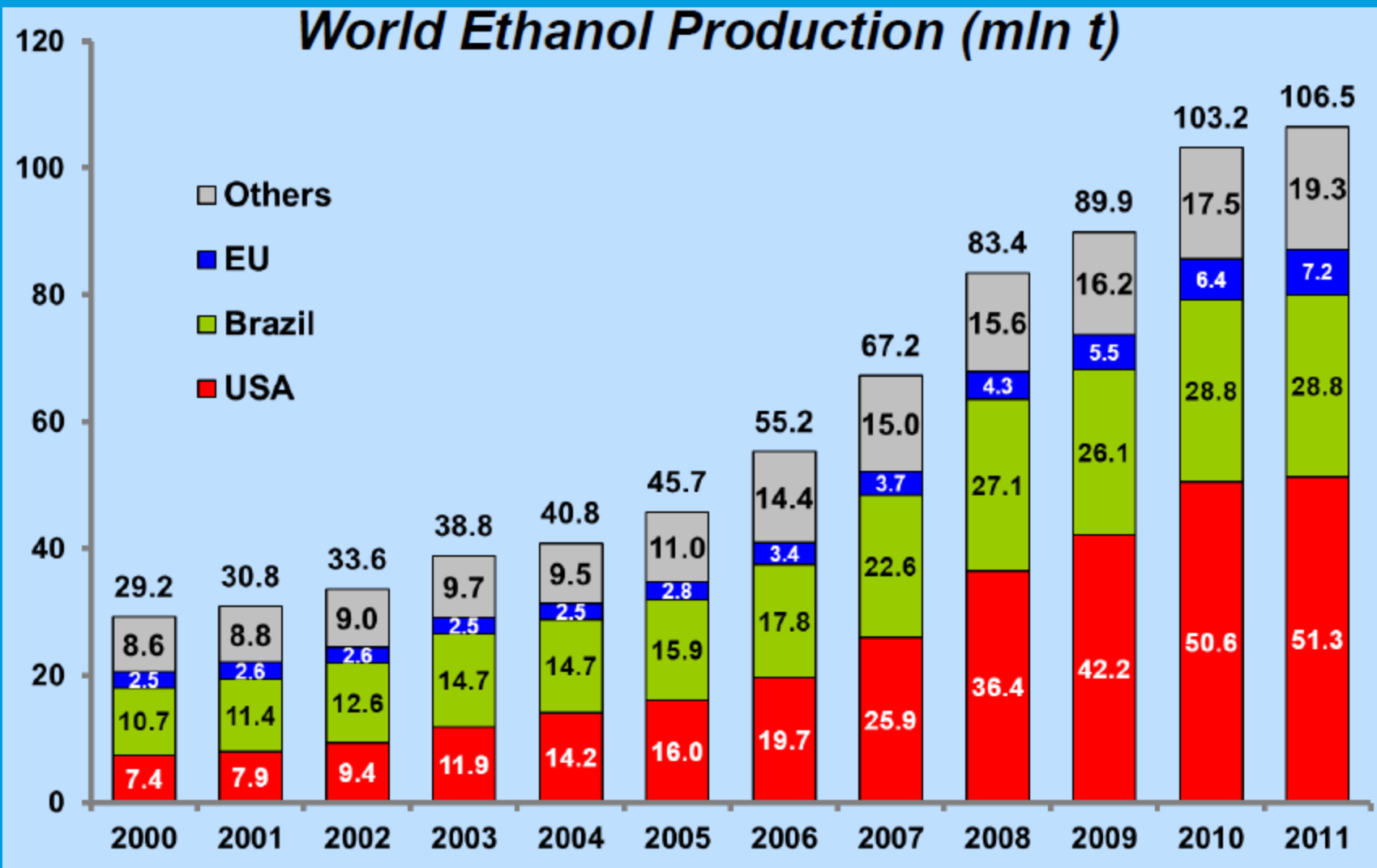


Source: FO Licht - Toepfer

# EU use of vegetable oil for biodiesel production (Mio t)

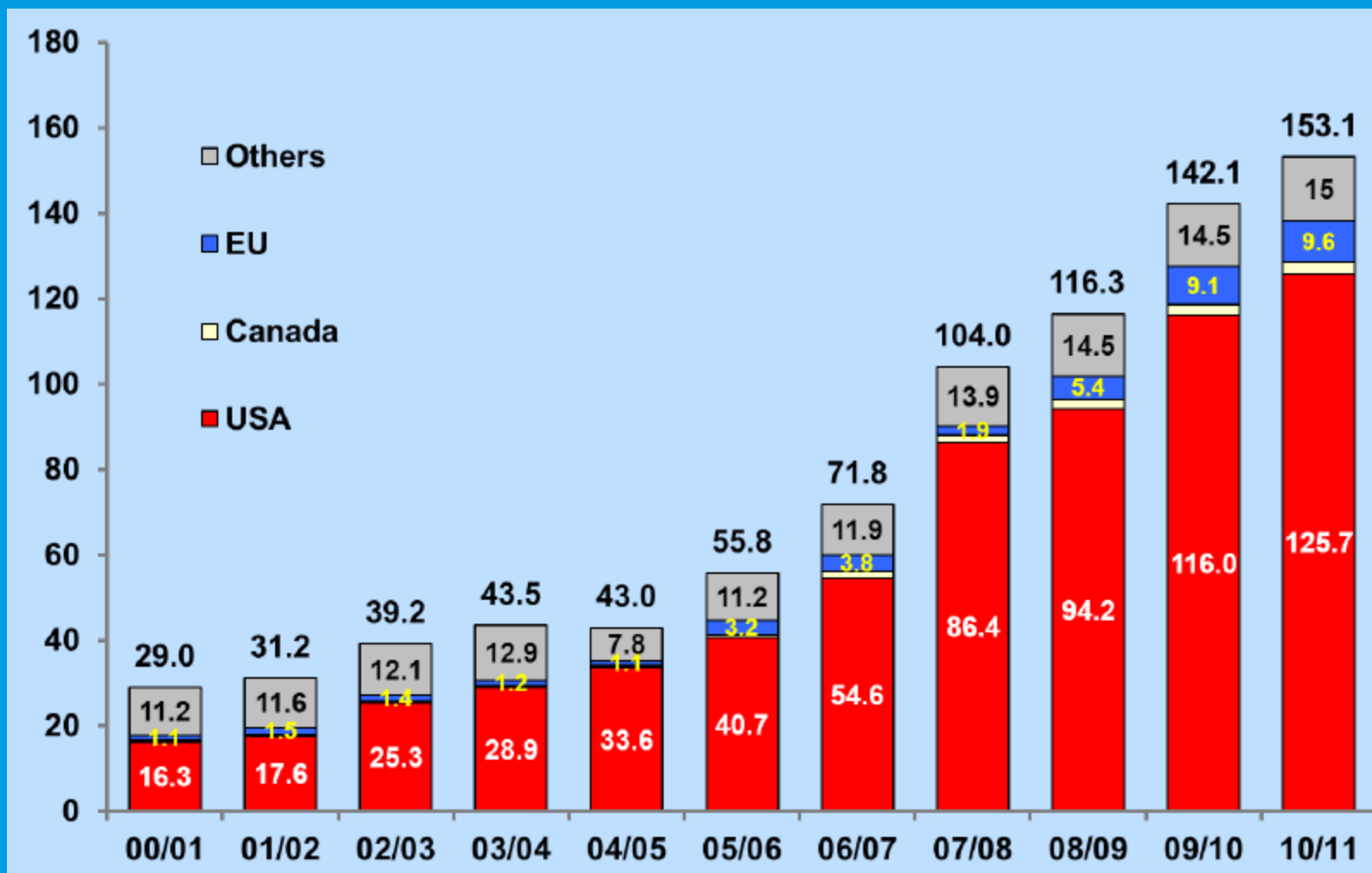


# World Bioethanol Production



Source: FO Licht - Toepfer

# World Grain Use for Ethanol (mio t)



Source: ACTI, USDA - Toepfer

# Main feedstocks used for biofuels production

## Biodiesel

Main Origin	Main feedstock
USA	Soy + UCO + tallow
Canada	Canola
Argentina	Soy
Europe	Rape (70-80%) Palm (8-15%) Soy (8-15%) Sun (1-2%)
Asia	Palm

## Bioethanol

Main Origin	Main feedstock
USA	Maize
Brazil/Central America	Sugarcane
Africa/MEO/Asia	Sugarcane + bagasse
Europe	Wheat (35-40%) Maize (15-20%) Barley (1-4%) Rye (4-6%) Wine (1-3%) Sugarb. (30-40%)
Asia	Sugarcane + bagasse + cassava

# EU Renewable Energies Directive: Implementation timeline

- Entry into force December 5<sup>th</sup> 2010
- 3 ways to demonstrate compliance
  - National measures
    - Member States to transpose legislation
  - Voluntary schemes
    - 7 Schemes adopted by the Commission: ISCC, Bonsucro EU, RTRS EU RED, RSB EU RED, 2BSvs, RSBA, Greenergy
    - 20 additional schemes under assessment
      - adoption unlikely before 2012
  - Bilateral agreement:
    - Not foreseen by Commission in the short term

# Sustainability Information

- Land use criteria
  - Status of agricultural land in Jan 2008
  - Linked with specific volumes
  - Definitions of “highly biodiverse grassland” and “degraded land”
- Greenhouse Gas (GHG) emissions savings
  - > 35%
  - Default or actual values
- Mass Balance system for verification:
  - Site level
  - Time period up to 1 year
    - 3 months as common rule for voluntary schemes

# Greenhouse gas emissions savings

- Grandfathering clause
  - For processing units running in 2008, obligation applies as of 2013
  - No information on CO<sub>2</sub> emissions are required
- Default values apply in third countries
  - Biodiesel from soybean below threshold (31% savings)
  - Unclear timetable for review of annex V – default values
- Tools for harmonized GHG calculation
  - BIOGRACE – submitted for Commission approval
- De-carbonization mechanism
  - 50% savings by 2017
  - 60% savings by 2018
- ILUC?

# Challenges

- Legal vacuum in several Member States
  - Few Member States have completed transposition (Germany, Austria, Sweden, the Netherlands)
  - Most Member States are likely to complete transposition by end 2011/beginning 2012
- Lack of harmonization at EU level
  - Entry into force, mass balance period, double counting provisions, etc.
- Recognition between voluntary schemes
- Delay in assessing voluntary schemes
- Fossil fuel baseline and review default values
- Pending definitions of “highly biodiverse grassland”
- **Indirect Land Use Change**

# Indirect Land Use Change

- No concrete legislative proposal yet
- Impact Assessment (IA) finalized – analysis of effects on investments, employment and overall economy
- Impact assessment based on results from IFPRI study (2011)
  - Very negative results for biodiesel: 51-57 grCO<sub>2</sub>eq/MJ
  - Bioethanol feedstocks perform better in LUC terms: 6- 14 grCO<sub>2</sub>eq/MJ
- Two options are left on the table :
  - DG CLIMA favours feedstock-specific ILUC factors
  - DG Energy favours higher GHG emissions saving threshold

# Indirect Land Use Change (2)

- Possible impacts of IFPRI conclusions:
  - Increase of GHG threshold (Hypothesis: 45% until 2017)
    - Sugar cane and corn ethanol: YES;
    - Soybean and palm oil biodiesel: NO;
  - Feedstock-specific factors
    - Sugar cane and corn ethanol: YES;
    - Biodiesel feedstock: NONE;
- Counterstudies on ILUC:
  - Ernst & Young commissioned by Shell, ePURE and others
    - Credit system for ILUC mitigation practices based on the bonus of 29 grCO<sub>2</sub>eq/MJ foreseen in RED
  - Dr. Don O'Connor from (S&T)<sup>2</sup> Consultant and Prof. Ruth Delzeit from Kiel University
    - Report fragilities and uncertainties in the IFPRI methodology

# COCERAL OUTREACH

Advocating on biofuels and sustainability since several years

## HOW?

- Setting up an internal Sustainability Working Group plus a joint one with the European oilseeds crushers (FEDIOL)
- Boosting the dialogue and the coordination with the partners along the supply chain (farmers, crushers, biofuels producers, etc.)
- Feeding practical concerns on the functioning of the system to the European Commission

# COCERAL OUTREACH (2)

Advocating on biofuels and sustainability since several years

## WHAT?

- Practical implementation of the biofuels sustainability requirements
- Interim system for sustainability criteria allowed for the 2010 crop – extension to 2011
- Definition of a workable mass balance
- Homogenization of national systems
- Recognition among voluntary schemes
- Speed up the assessment of voluntary schemes
- Increase knowledge on ILUC before adopting legislation