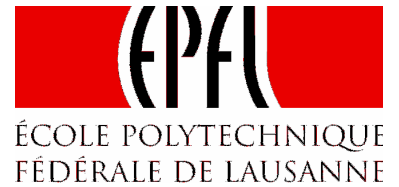


# Roundtable on Sustainable Biofuels

An initiative of the EPFL Energy Center



## Background document

## Expert Advisory Group

### Who is participating in this Expert Advisory Group?

#### *Co-chairs*

Dr. Bruce Dale of Michigan State University.

Dr. Stephan Krinke from Volkswagen

#### *Coordinator GHG WG:*

Mr. Georgios Sarantakos, [georgios.sarantakos@epfl.ch](mailto:georgios.sarantakos@epfl.ch)

#### *GHG Expert Group*

Dr. Alex Farrell; UC Berkley

Dr. Hisashi Ishitani; Keio University

Dr. Jeremy Woods; Imperial College London

Dr. Rainer Zah; EMPA, Switzerland

Dr. Guido Reinhardt; IFEU, Germany

Dr. Isaias Macedo; UNICAMP, Brazil

Dr. Michael Wang; Agronne National Labs, USA

Dr. Edgard Gnansounou; EPFL

### Role of the Expert Advisory Group

This Expert Advisory Group will meet as a small group to tackle the most sensitive and controversial issues related to GHG emissions calculation and, ideally, achieve consensus on a methodology and approach of GHG emissions measurement. Their suggestions will then serve as the basis for the broader GHG Working Group meetings. The GHG Working Group will then make recommendations to the Steering Board regarding how to account for GHG emissions, based on the suggestions of the Expert Advisory Group about GHGs. In preliminary discussions with some of you, it is also clear that it might be of interest to discuss political developments related to biofuels' sustainability in your own countries within this Group.

### Issues to be discussed

The following points will be discussed by the scientific advisory board:

- Inventory of the existing databases and LCA tools/methodologies: e.g. EIOLCA.net, GHG Genius (Concawe), EcoInvent, PEAMS (good representation of marine

- applications), LEM (lifecycle emission model from Univ. Cal) etc., specifying which ones are free/well documented/transparent.
- Identification of the main points in the life cycle of the biofuels which contribute the most to GHG emissions.
  - Selection of the approach for the by-products in biofuels GHG calculation. Substitution or allocation? If allocation which type of allocation (by mass, energy content, market value, C-content etc).
  - Land use change

The result of the methodology comparison could be presented in a table form, with following rows/columns:

<b><i>Criteria for comparison</i></b>	<b><i>Method 1</i></b>	<b><i>Method 2</i></b>	<b><i>...</i></b>
<i>For which industries/products was this tool designed?</i>			
<i>What kind of software is used?</i>			
<i>Is it free?</i>			
<i>Is it transparent/ well documented?</i>			
<i>What are the system limits?</i>			
<i>What are the main assumptions?</i>			
<i>Are they based on default data? If yes, what is the source of these data?</i>			
<i>Which biofuel pathways are included</i>			
<i>How many datasets in total are included?</i>			
<i>Are electricity mixes for different countries included?</i>			
<i>Is data accuracy respected? Error margins/ calculations?</i>			
<i>How is the database updated, which intervals, review process?</i>			
<i>Which environmental impact assessment methods are included?</i>			

The Expert Advisory Group will focus on the areas where existent methodologies do not agree, and try to achieve consensus on an approach

It should be clear that the GHG WG will focus on the GHG impacts of land use change, and not the food security or biodiversity impacts. Good coordination between the Working Groups will be necessary so that the same ground is not covered over and over again.

The Scientific Advisory Board will also share policy developments in their respective countries.

## Timeline

	2007							2008			
	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March
Constitution of Expert Advisory Group		■	■								
<b>Expert Advisory Group meetings/conf calls</b>			■		■		■		■		■
Choice of the methodology for GHG assessment:											
<i>1) Inventory and comparisons of the existing LCA tools/ methodologies</i>			■	■	■	■					
<i>2) Identify the main points in the life cycle that contribute the most to GHG emissions</i>				■	■	■	■	■			
<i>3) How to tackle indirect effects/ the question of allocation</i>							■	■	■		
<i>4) Address GHG emissions from land use changes</i>									■	■	■
Draft overall recommendation GHG elements of draft standard											■
Devise recommendations for governance structure to continually update GHG tool (Phase Two)											■

The first Expert meeting took place on Wednesday 25<sup>th</sup> of July.