



## Editorial

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### Dear readers!

Here is the seventh issue of the Biofuel Cities Quarterly, the first issue in 2009, a year that may become very important for the future of biofuels. Late in 2008, the new EU directive on the promotion of renewable energy was adopted by the European Commission, the European Council and the European Parliament. The directive requires a 10% share of biofuels in the transport sector by 2020. In 2009, all EU Member States will start developing their national implementation plans. These will define in detail how biofuels will be stimulated towards 2020 and how issues like sustainability will be addressed.

This issue of the Biofuel Cities Quarterly focuses on the on-road emissions of vehicles running on biofuels: an interesting topic, as relatively little information is available. On-road emissions, or emissions from the tailpipe, could be divided into emissions that have a global effect on the climate (mainly CO<sub>2</sub>) and emissions that have a local effect, such as local air quality. The latter emissions are mainly nitrous oxides, particulate matter, sulphur oxides and hydrocarbons; emissions levels strongly depend on the combustion process in the vehicle.

Car manufacturers are obliged, via the Euro standards, to limit the polluting emissions of their vehicles. An interesting point here is that compliance with these standards is determined by test cycles, in which fossil fuels are used.

But how do vehicles perform if they use biofuels? The answer to this question requires the extensive testing of large numbers of vehicles and, therefore, is very expensive. With an increasing number of biofuels placed on the market (sometimes with varying fuel qualities), it will become a bigger challenge for car manufacturers to optimise their engines for lower emissions. In the near future, the question of whether cars should be optimised for the fuels or whether specific fuels should be developed, e.g. synthetic fuels, for better performances might become more relevant.

Enjoy reading!

## In focus

### Biofuels: let's consider emissions

Biofuels have an important role to play in the European energy policy. Today they exist as one of the only direct substitutes for oil in road transportation available on a significant scale. Biofuels can be used in existing vehicle engines, either unmodified for low blends, or with cheap modifications to accept high blends.

With biofuels now reaching a visible scale at the European level, discussions are emerging about the sustainability of biofuels compared to fossil fuels. They focus mostly on the origin of the feedstock and the greenhouse gas emissions associated to its production; however the on-road effects caused by the use of vehicles running on biofuels should also be considered.

There is quite a lot of data available for older vehicle models, but the effect on new engine systems, with high pressure direct injection in combination with various emission control systems is not always clear. Within the framework of several projects, VITO performs tests on new vehicle types with various biofuels blends to quantify their impact on fuel consumption and emissions.



One of the test vehicles: Volvo V50 1.8 f Flexifuel.

Fuel consumption and emissions are measured on a proving ground using VITO's VOEMLOW system (VITO's On-the-road Energy and Emission Measurement System). This dedicated system can measure fuel consumption and emission concentrations (CO<sub>2</sub>, CO, THC, NO<sub>x</sub> and PM), combined with the total mass flow of the exhaust gases, so the results are expressed in gram pollutant per second.

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Meet the Biofuel Cities Partners:

## VITO – the Flemish Institute for Technology Research

VITO, the Flemish Institute for Technology Research, situated in Mol, Belgium is an independent and customer-oriented research organisation employing almost 500 highly qualified personnel. VITO provides innovative technological solutions, as well as scientifically based advice and support in order to stimulate sustainable development.

The research work places the highest priority on optimising the use of energy and raw materials and protection of the environment. In the areas of energy, raw material and environment, VITO supports SME's and major companies with research, development and implementation of innovative technologies. For public authorities, VITO is a research partner that carries out

policy supportive research studies in a reliable, efficient and economic manner. With its cutting edge infrastructure and extensive know-how, VITO looks for long-lasting, independent and feasible solutions for companies in Belgium and other countries, as well as for regional, federal and European Authorities.

To visibly demonstrate its efforts, VITO had its environmental management system certified according to the international standard ISO 14001.

VITO has gathered experience with the use of biofuels in vehicles since 1994. The first focus was on the technical aspect and evaluation of biofuels use and emissions of vehicles in real traffic conditions, in

comparison to conventional fuels or other alternatives. Apart from the technical side, aspects of market introduction, policy steering and sustainability of biofuels (life cycle assessment) were evaluated. In parallel, technological research was conducted for the optimisation of existing production processes (like biodiesel) and the development of new processes (like bio-hydrogen). VITO is involved in various EC-funded projects on biofuels, sustainable mobility and vehicle technology.

Within the Biofuel Cities Project, VITO is developing a web-based monitoring tool to collect independent and realistic performance indicators for the different parts of the complete well-to-wheel chain for various biofuels.

For more information on VITO, please visit: <http://www.vito.be>



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## Biofuels: let's consider emissions

This system has a drastically increased sensitivity to measure low emission levels from vehicles complying with future emission levels. VOEMLow measurements are performed at 1 Hz, allowing investigation on the influence of several vehicle and

engine parameters on the fuel consumption and emissions.

Two different driving cycles are tested. For passenger cars and delivery vans, tests are done according to the NEDC cycle (New European Driving Cycle) and the MOL30

cycle, which is based on real driving behaviour in city, rural and motorway traffic situations. For heavy duty vehicles (buses, trucks), typical speed profiles are used according to their application. The vehicle-fuel combinations that are currently tested and will be tested in the future are presented below.

Most of the tests on Pure Plant Oil (PPO) and biodiesel blends are complete, while the tests on ethanol blends are on-going.

Biodiesel blends were tested on four different vehicles (one passenger car, one delivery van, one truck, one city bus). The following trends were identified:

- There was no significant increase in volumetric fuel consumption for B5 and B10. For B100, an increase between 3 and 15% in fuel consumption was measured, mostly related to lower energy content per litre compared to fossil fuels;
- A decreasing trend in CO and particulate matter emissions with higher biodiesel blends; for B100, a reduction of particulate matter of up to 60% (without PM filter) was found;
- Up to B30 the effect on NOx emissions is not significant. For B100 the effect is vehicle dependent and ranges between -10% for a bus and up to +20% for a passenger car.

### VEHICLE-FUEL COMBINATIONS

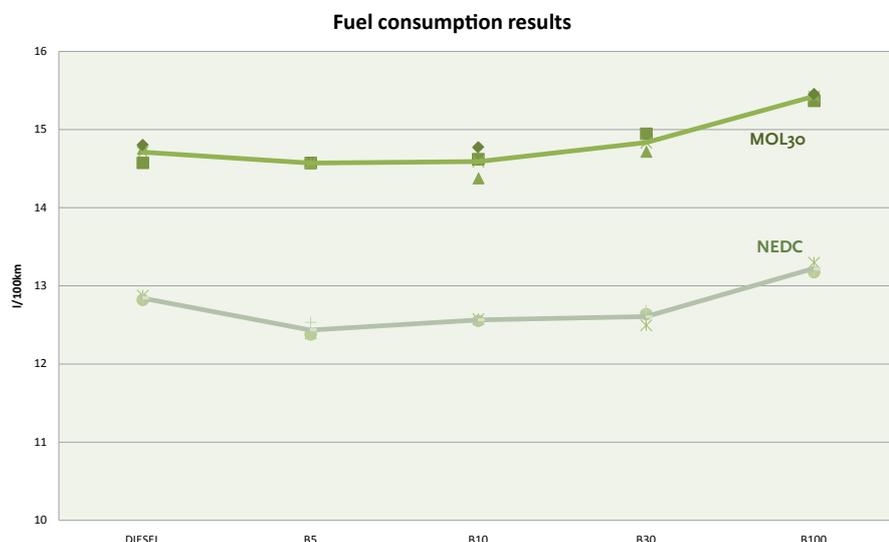
Vehicle	FUEL / BLEND	FUEL / BLEND					
		PPO	DIESEL	B5	B10	B30	B100
Citroën C4, 1.6HDI (2007)			•	•	•	•	•
VW Crafter, 2.5 TDi (2007)			•	•	•	•	•
Scania truck, P230 (2007)			•	•	•	•	•
VanHool A360 bus, 6.9l MAN engine		•	•	•	•	•	•
Nissan Patrol GR, 3.0 DDTi (2002)		•	•	•			
Opel Vivaro, 1.9 DTI (2003)		•	•	•			
Citroën Berlingo, 2.0 HDI (2002)		•	•	•			
		PPO = pure plant oil ; B <sub>xx</sub> = diesel containing xx % biodiesel					
		FUEL / BLEND					
		Euro 95	E5	E10	E20	E85	
Volvo V50, 1.8f (2008)		•	•	•	•	•	
VW Golf Plus, 1.4 TSI (2008)		•	•	•	•	•	
Saab 9.5 BioPower, 2.0T (2008) *		•	•	•	•	•	

E<sub>xx</sub> = gasoline containing xx % ethanol \* tests scheduled in 2009

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## Biofuels: let's consider emissions



Fuel consumption results on different biodiesel blends for one of the test vehicles.

PPO (in pure form) was tested on four vehicles (two delivery vans, one Sport Utility Vehicle (SUV), one bus), which were all converted to drive on PPO. It is very important to have both a good quality PPO fuel and a high quality conversion system; otherwise emissions may increase drastically. For the SUV, there were clearly problems with the conversion system, leading to increased emissions of CO, THC and PM. For the other three vehicles, a volumetric fuel consumption increase between 6 and 15% (comparable to pure biodiesel) was seen. PM emissions were generally reduced up to 50%.

For NO<sub>x</sub>, THC (total hydrocarbons) and CO emissions, results were extremely varied: NO<sub>x</sub> emissions increased around

30% for the delivery vans, whilst for the bus there was a decrease between 5 and 10%; CO emissions increased by 30% for one of the vans, while they decreased by 20 to 30% for the other van and the bus; THC emissions increased two to three times for the vans, while they decreased by 30% for the bus. Note that the CO and THC emissions of these vehicles was already much lower than the Euro norm.

As mentioned, tests on ethanol blends are on-going and it is too early to discuss the results at this stage.

The vehicle test campaign will be completed in the first half of 2009 and results will be made public through: <http://www.vito.be/bioses>.

## → New resources: recommended websites and publications

### Websites

- The **Joint Research Centre** of the European Commission has performed a well-to-wheels evaluation of alternative transport fuels in a European context: <http://ies.jrc.ec.europa.eu/WTW>
- The **NOVA Institute** for political and ecological innovation provides information on biofuels in Germany: <http://www.biokraftstoff-portal.de>
- **BioFleet** encourages and supports the use of biodiesel fuel by fleets across British Columbia: <http://www.biofleet.net/>

### Publications

- **Croezen, H. et al/ CE Delft (2007):** "ETBE and Ethanol: A Comparison of CO<sub>2</sub> Savings". Available to download from the Biofuel Cities homepage: <http://www.biofuel-cities.eu>
- **Larson, M.-O./ Miljöinfo AB (2006):** "Exhaust emissions from light vehicles run on alternative fuels". Available to download: [http://www.best-europe.org/upload/BEST\\_documents/environment/Exhaust%20emission061129.pdf](http://www.best-europe.org/upload/BEST_documents/environment/Exhaust%20emission061129.pdf)
- **Krahl, J. et al (2004):** "Comparison of biodiesel with different diesel fuels regarding exhaust gas emissions and health effects". Available to download: [http://www.ufop.de/downloads/Biodiesel\\_comparison.pdf](http://www.ufop.de/downloads/Biodiesel_comparison.pdf)
- **Pelkmans, L. et al./ VITO (2008):** Inventory of biofuel policy measures and their impact on the market. Available to download: [http://www.elobio.eu/fileadmin/elobio/user/docs/Elobio\\_D2\\_1\\_PolicyInventory.pdf](http://www.elobio.eu/fileadmin/elobio/user/docs/Elobio_D2_1_PolicyInventory.pdf)
- **UFOP/ meo (2008):** Information on Paradigm Shift in Biofuel Policies: From volume quotas to a greenhouse gas avoidance quota and the effects on biofuels. Available to download: [http://www.ufop.de/downloads/UFOP\\_Information\\_on\\_Paradigm\\_ENG.pdf](http://www.ufop.de/downloads/UFOP_Information_on_Paradigm_ENG.pdf)
- **Brauer S., et al., Institute for energy and environment Leipzig (2008):** "Cost and Life-Cycle analysis of biofuels". Condensed Version available to download: [http://www.ufop.de/downloads/Costs\\_LCA\\_Biofuels\\_short\(1\).pdf](http://www.ufop.de/downloads/Costs_LCA_Biofuels_short(1).pdf)

Further resources are available on the **Biofuel Cities website**, which is updated regularly: <http://www.biofuel-cities.eu> !



## Interview with Jean-Marc Jossart:

## Biofuels and the role of governments

Jean-Marc Jossart was interviewed by Nathalie Devriendt, VITO

Jean-Marc Jossart, an agronomist, has been working since 1992 as project manager at the Catholic University of Louvain in the field of biomass and bioenergy. His main fields of expertise are biofuels for transportation, energy crops, bioenergy from agriculture, environmental impacts of bioenergy, European legislation and Policies to develop bioenergy. He has been the Secretary General of the European Biomass Association (AEBIOM) since 1997. AEBIOM consists of 33 national biomass associations and 70 companies with varying activities: networking, lobbying EU bodies, European projects, and information dissemination, etc.



Jean-Marc Jossart

**N. Devriendt:** What are the main differences between a call system with quota for biofuel production as seen in France and Belgium and an open system (either with tax reduction or substitution obligation)? What are the advantages and disadvantages?

**J.-M. Jossart:** The advantage of a quota system is that costs are predictable for the government. Once the quota is assigned and the cap is fixed, they know exactly how much they have to spend. Also, the fiscal impact can be neutralised by the government if necessary. Furthermore, the quota system assures security of supply of the biofuel in question. On the other hand, the disadvantage of a quota system is that, it is very static. There is no room for new players and no evolution within the market. An open system has the advantage that the market is flexible; it can choose the cheapest solution.

**N. Devriendt:** Should governments take the sustainability of biofuels into account? If yes, how can they do this in the current phase of biofuels introduction?

**J.-M. Jossart:** Sustainability criteria will be mandatory by the proposed directive, starting in 2010 for new plants and in 2013 for existing plants. My personal opinion is that in the meantime, biofuel producers should prepare themselves and initiate some actions. They should show and document the environmental benefits of their biofuels. In Belgium, some sustainability criteria were already taken into account in the assignment of the quota, like the CO<sub>2</sub>- and energy balances, transport, etc. Producers can also look at other coun-

tries where sustainability issues are already addressed to some extent, for instance in Germany.

I think it is a good decision by the EU to implement a sustainability scheme, but the criteria for biofuel producers should be reasonable and the cost should be affordable.

**N. Devriendt:** The 10% target for biofuels is under discussion in the European Parliament. Should governments stick to this percentage?

**J.-M. Jossart:** The 10% mandatory target for 2020 will probably stay, but current discussions foresee a revision and evaluation in 2014. At that moment different aspects will be reviewed, such as the food versus fuel discussion and the development of second generation biofuels. All member states should be prepared for the 10% obligation and think about how to implement it and which measures to take.

**N. Devriendt:** The revised fuel quality directive was proposed in January 2007, including a suggested greenhouse gas reduction of 1% per year for transport fuels put on the market (the directive is still under review). How will this influence the implementation of the biofuels?

**J.-M. Jossart:** Good question! For me the goal of 10% biofuels and the reduction of 1% GHG reduction for transport fuels are two separate, but compatible, objectives, both aimed at the reduction of greenhouse gas and the security of energy supply.

**N. Devriendt:** In certain European countries there is an imbalance between the use of diesel and petrol. How should governments deal with this when implementing biofuels?

**J.-M. Jossart:** This is indeed the case in a lot of European countries, except

Greece and Sweden. There is disproportion of usage between diesel and gasoline, which is a problem, not only for the fossil refineries, but also for biofuels producers. This is because the EU potential agricultural resources of bioethanol are higher than for biodiesel. Ideally governments should react on this and allocate their taxes more evenly. This is of course a difficult issue because diesel is mostly used for professional purposes and gasoline for private use. But even with the important difference in taxation, you already see a market correction in the price because of a higher diesel price ex-refinery. The correction of this imbalance will take time (10 years probably) and biofuels producers cannot count on this in the short term. We have to look for alternative solutions to develop the ethanol market, like blending 7 to 15% of bioethanol in diesel, as seen on a pilot scale in the USA.

**N. Devriendt:** Should governments support higher blending of biofuels to all fuels on the market (e.g. E10 or B10), or should they promote specific high blends (like E85) or pure biofuels (like B100 or PPO), or should they go for a mix of both strategies?

**J.-M. Jossart:** Governments should go for a mix of both strategies. Nevertheless, it can be seen from the statistics of pilot countries like Sweden, Germany and France that the major volume is reached with overall low blending. High blending adds the visibility to biofuels. To reach the 10% target higher 'low' blends will be necessary, going to E10 and B10. Member states need a mix of strategies to see how we can reach the 10% figure (on energy basis) with different implementation scenarios of low and high blends.

**N. Devriendt:** How should a government deal with compatibility issues of new, but also older vehicles with different blends of biofuels?

**J.-M. Jossart:** This is indeed a very important issue. Governments should show the way and set the target for biofuels, providing a strong signal to car manufacturers. At the same time, the final consumer should be protected. When introducing a higher or different blend at the pump, vehicles should be compatible.

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Forcing car manufacturers to higher blends compatibility is difficult, especially at member state level. This is a decision that should be taken by the manufacturing companies, at multinational level.

A fair market introduction with the involvement of all stakeholders should be foreseen. For instance, when introducing E10, evaluation of which gasoline fuel will be replaced should take place (this created a problem in Germany). The mix of old and new vehicles should be considered, as well as the fact that fuel stations have a limited number of pumps.

**N. Devriendt:** How should governments overcome the chicken and egg discussion? First biofuels then adaption of cars or the other way around?

**J.-M. Jossart:** Governments should address both issues together. A good example of supporting adapted cars is shown in Sweden, with tax advantages, free parking, no queuing for taxis, etc. Governments should set the example themselves with captive fleets driven on higher blends. To promote higher blends, the same taxation rules as for lower blends should be available (the same tax reduction per litre ethanol for example) and it should be at least allowed to sell high blends, which is not the case in Belgium.

**N. Devriendt:** Should governments take action related to specific off-road end-users, such as agricultural machinery, diesel trains or inland navigation, or should they focus on the road transport?

**J.-M. Jossart:** The market for road transport is the largest sector of the market, so if the efforts are taken here this is already a huge step. The directive is also focussing on diesel, gasoline and electricity usage for land transport. In the future, evaluation can take place on whether it is necessary to include off-road, aviation and maritime transport.

**N. Devriendt:** In road transport, heavy duty freight is taking an important and growing share of fuel consumption. Should special attention be paid to that segment?

**J.-M. Jossart:** I am not in favour of taking specific measures for heavy duty freight. Promotion of higher blends like B30,

B100 or E85 should be implemented for all market segments, for example by providing advantages. We have to keep in mind that energy efficiency measures, meaning less fuel consumption, should be a priority in transport.

**N. Devriendt:** At the moment a lot of research is done on '2<sup>nd</sup> generation biofuels'. Do you think that these fuels will replace current biofuels? How can governments take these upcoming evolutions into account?

**J.-M. Jossart:** The replacement of first generation biofuels will not be so quick. Like the first generation, second generation biofuels will also be dependent on for example wood prices. I am certainly in favour of developing second generation biofuels, but I do not believe in the strict 'difference' or 'gap' that is perceived. The replacement will happen gradually. For example, for certain bioethanol production sites, it seems logical to add a unit on cellulose and lignocellulose over time, because part of the process is similar. For diesel-like biofuels, a complete different process and scale of the second generation will be implemented and there the transition will be more abrupt.

The double counting for second generation, as mentioned in the Directive, still carries the danger that oil companies might massively invest in second generation biofuels. This may lead to a high pressure on the market for biomass raw materials that can be used for different forms of energy carriers, like heat and co-generation, with a much higher efficiency. I don't support the double counting principle that gives an artificial support to the inefficient use of wood.

**Note from the editor:** Interview was held on the 1<sup>st</sup> of December before the climate package was approved by the European Council on the 11<sup>th</sup> of December.

## Work in progress: relevant EU projects

### BOLK – Impact of biofuels on air pollutant from road vehicles

The Dutch research programme on air and climate (BOLK) identifies knowledge gaps on synergies and trade-offs between climate measures and emissions of air pollutants and attempts to fill these gaps. The programme focuses on the climate measures: biofuels in traffic, biomass and biofuels in stationary installations and carbon capture and storage.

The use of biofuels is stimulated in order to reduce the CO<sub>2</sub> concentration in the air. The BOLK study on biofuels and emissions aims to discover whether the introduction of biofuels has also had a positive effect on air quality. The study is a reference work providing facts and figures about emissions and biofuels. It also gives policy recommendations needed to make decisions for the future.

**Visit:** [http://www.mnp.nl/en/dossiers/Transboundaryairpollution/Dutch\\_Policy\\_Research\\_Programme\\_on\\_Air\\_and\\_Climate.html](http://www.mnp.nl/en/dossiers/Transboundaryairpollution/Dutch_Policy_Research_Programme_on_Air_and_Climate.html)

### BIOSIRE – Creating Sustainable Transport in Tourism Regions

BIOSIRE aims to establish a shift towards bio-diesel and electric propulsion for fleets, ships and special vehicles in tourist areas in Spain, France, Greece, Italy, Croatia and Austria.

BIOSIRE local actions are directed at market transformation and changing the behaviour of fleet operators, tourists and residents, farmers and the potential suppliers of used cooking oils. The actions cover the full production and distribution chain. The project offers training, consulting and support for fleet owners, and will formulate recommendations for other tourist regions based on the outcomes of the project activities.

**Visit:** <http://www.biosire.eu>

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## Work in progress: relevant EU projects

### FUELswitch - switching to clean fuels in the Netherlands

The Province of Gelderland, the Netherlands, is moving towards its ambition to comply with the European standards of nitrogen oxides (NOx) and particulate matter (pm) in 2010. The Province has provided € 1.100.000 in subsidies to petrol station owners wishing to invest in natural gas stations. Besides natural gas, these stations will also offer green gas.. The Province of Gelderland wants to stimulate end users of biofuels (fleet managers, vehicle purchasers and civilians), as well as its efforts to realise these petrol stations. Hence, the FUELswitch campaign has been launched. With the campaign, the province aims to expedite the introduction of clean vehicles.

To support the FUELswitch campaign, a website (in Dutch) was launched, providing lots of information on biofuels. For example, locations of biofuels stations can be found, as well as fact sheets and a cost calculator.

**Visit:** <http://www.fuelswitch.nl/index.php?mod=map>



## News from Biofuel Cities

### Policy Guidelines for biofuels – Local Implementation of Clean(er) Fuels Policies in Europe

Think global, act local. But how exactly? With increasing concerns about climate change, the political need for security of supply and the public demand for clean(er) cities, local governments are increasingly called upon to act. Local development and implementation of clean(er) fuels policies can be successful and even play a major role in the national implementation of these policies, as local governments are much closer to the market and to the main stakeholders. However, this also means that local governments are directly faced with the numerous challenges existing in the implementation of clean(er) fuels policies on the local market. These challenges may constitute a risk, unless timely, workable solutions are implemented.

In order to provide support to this local implementation process, a handbook with policy guidelines is being developed within the Biofuel Cities project. The objectives of this handbook are to:

- spread information, insights and knowledge on good practice examples
- discover and present the vital market elements for local implementation and the process to achieve them
- support local governments in Europe, by identifying the key factors for success

In order to identify the local success factors, three case studies, the cities of Stockholm, Graz and Lille, are presented. The choice of these cities was primarily based on their success in their various implementations of clean(er) fuel policies and the fact that they achieved their ambitious clean(er) fuel/clean(er) vehicle targets.

Following the case studies, a comparative analysis identifies the key success factors in establishing vital market elements. Local governments can overcome the existing challenges by developing a framework of policy measures, in close co-operation with key stakeholders, in particular the private sector. This handbook contains a clear analysis of the role of the private sector and describes how local governments can make a clean(er) fuels policy work by creating a win-win situation for all involved.

The policy handbook will be presented and discussed in a workshop on 19 – 20<sup>th</sup> February 2009 in Rotterdam, the Netherlands. Interested participants from any European local government are welcome to participate.

**Further information is available on the Biofuel Cities website** (<http://www.biofuel-cities.eu>), **or contact:**  
**Floris Mulder, [F.Mulder@senternovem.nl](mailto:F.Mulder@senternovem.nl)**



### Polish practitioners get master class in EU Biofuels Policy and Roll out for End-users

Tailored to address the situation in the Central and Eastern European (CEE) countries, Biofuel Cities hosted two workshops in Poland towards the end of last year.

The first, hosted in Warsaw by the city's infrastructure department and the Partnership for Climate Initiative of which Warsaw is a member, brought 35 participants from nine countries together to identify and discuss issues surrounding the roll-out of biofuels in the region.

The focus of this workshop was **end-user views on challenges and opportunities**. Participants presented the case in their countries, which made clear that the situation varies greatly. Technical issues, as well as local and national framework conditions, economic developments and ideas for regional start ups of biofuels in transport all fuelled the discussion.

Much attention was also paid to sustainability, which has been a recurring theme over the course of the Biofuel Cities project.

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This complex theme raises questions in terms of climate change mitigation (in particular waste-to-energy solutions), land use change and biodiversity, as well as food security.

A second workshop was then held in Krakow to inform CEE biofuels stakeholders on the current developments in EU policy regarding biofuels and sustainability. Hosted by the Polish Institute for Fuels and Renewable Energy (IpiEO), it was attended by around 20 participants from six European countries.

Following a number of interesting presentations on the Renewable Energy Directive, the current situation of biofuels in Poland and in Estonia, the question of how to comply with the biofuels sustainability requirements was addressed and the proposed sustainability requirements for biofuels and bioliquids in the new Renewable Energy Directive were discussed.

The workshop finished with presentations on developments for a European standard for sustainable biofuels and an exploration of the use of bioenergy and biofuel production as an alternative for the declining Polish sugar industry.

*For more information on the Warsaw workshop, please contact Christine Klas: [christine.klas@iclei.org](mailto:christine.klas@iclei.org).*

*For more information on the Krakow workshop, please contact Marieke Harteveld: [m.harteveld@senternovem.nl](mailto:m.harteveld@senternovem.nl) or Magdalena Rogulska: [mrogulska@ipieo.pl](mailto:mrogulska@ipieo.pl)*

## Biofuel Cities Website offers new chance to INTERACT

The ethos of the Biofuel Cities European Partnership website is to offer all those engaged or interested in the issue of biofuels for transport an opportunity to increase their knowledge, discover who's who and to stimulate debate and discussion on the subject.

A new addition to the Biofuel Cities website now makes this even easier. The new INTERACT section allows visitors to discover what Biofuel Cities workshops are coming up and what has been discussed at those already finished. It has an integrated Policy Measures database, where the most optimal policy for a particular biofuel, policy level or field can be discovered at the click of a button. Innovative companies, initiatives and organisations can be found in the Networking Corner and cities interested in learning more from their peers can learn about Twinning, an activity encouraged by the Biofuel Cities European Partnership.

Visit <http://www.biofuel-cities.eu> and click **INTERACT** to learn more.

## Biofuel Cities at World Biofuel Markets 2009

The World Biofuels Markets 2009 is Europe's largest Biofuels Congress and Exhibition and will be held in Brussels from 16–18 March 2009. This year Biofuel Cities has the unique opportunity to host a session at this conference. You are warmly invited to join us at this special session on the 18th of March from 9:00 to 10:30. The practical aspects of the local implementation of biofuels will be the prevailing theme of the presentations and discussions. A number of key guides will be published this year by the Biofuel Cities European Partnership, among them Sustainable Procurement of Biofuels for Transport and the Biofuel Cities Policy handbook. Both will be presented at this session, their messages illustrated by best practice examples from the city of Graz, Austria, and the city of Stockholm, Sweden. In addition, there will be a Biofuel Cities stand in the exhibition hall, where you can learn about our Biofuel Cities Technical Guidance and a biofuel project monitoring tool.

We hope to see you there!

*For more information, please visit our events page at <http://www.biofuel-cities.eu> or World Biofuel Markets 2009 at <http://www.worldbiofuelsmarkets.com>.*

## Imprint

The **Biofuel Cities Quarterly** is the newsletter of the Co-ordination Action Biofuel Cities European Partnerships project. It aims at keeping you informed of key developments regarding the application of biofuels in Europe. Free copies can be obtained from: SenterNovem, PO Box 8242, 3503 RE Utrecht, The Netherlands, [secretariat@biofuel-cities.eu](mailto:secretariat@biofuel-cities.eu), fax: +31 30 231 6491

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## Comments welcome!

The Biofuel Cities Consortium strives to provide relevant and user-friendly services and products, both in terms of quality and quantity of information design and of the actual information supplied. Please help us to improve our work and tailor it according to your needs and wishes! We will carefully evaluate and use all your comments and proposals, please send them to [secretariat@biofuel-cities.eu](mailto:secretariat@biofuel-cities.eu)



## Event calendar

### → 23–24 February 2009

**Sustainable Bioenergy 2009. New trends in biomass, biogas and biofuels**

**London, United Kingdom**

This conference will examine all the new trends in the bioenergy market, such as solutions to the food vs. fuel debate, "next generation" biofuels, biomass for power generation, development of biorefineries and how they are influencing investment decisions in Europe.

Panel discussions will focus, among other topics, on sustainability and biofuels, as well as on bioenergy and carbon finance/climate change. Moreover, top-level industry experts will present on EU policy and targets, second-generation biofuels and infrastructure investment challenges.

**For more information, visit:** <http://www.environmental-finance.com/conferences/2009/SustBio09>

### → 10–12 March

**International Advanced Mobility Forum 2009**

**Geneva, Switzerland**

A scientific and public forum centred on key aspects and issues related to individual mobility for the future, the conference will focus on discussing all the technical and practical aspects of numerous solutions proposed for environmentally cleaner forms of mobility. This year's edition will be dedicated to providing the energy for individual transportation alternatives in the future and technological solutions to reduce energy consumption.

The programme includes such topics as economical and market potential of the alternative fuels, as well as risk and constraints involved, e.g. infrastructure, cost, and well to wheel efficiencies.

**For more information, visit:** <http://www.iamf.ch>

### → 11–13 March

**Biofuels International Conference and Exhibiton**

**Opatija, Croatia**

The conference will bring together leading experts and practitioners from CEFTA countries to discuss biofuel production and use in Southeastern Europe, focusing on the potential of biofuels to decrease European dependence on oil and natural gas and also help decrease emissions of greenhouse gases.

Further topics include the legislative framework in the EU and CEFTA countries and the sustainability of second generation biofuels.

**For more information, visit:**

<http://www.biogoriva.eu>

### → 16–18 March 2009,

**World Biofuels Markets 2009**

**Brussels, Belgium**



The World Biofuels Markets congress is the largest biofuels event in Europe and is firmly established as the key meeting place for industry experts looking to share best practices and attract new clients.

With over 1300 participants from 58 countries, and over 100 exhibitors; the 3rd annual World Biofuels Markets 2008 congress was bigger than ever and a great success. Details for the 2009 congress will be published on the congress website.

**For more information, visit:**

<http://www.worldbiofuelsmarkets.com>

### → 19 March 2009

**Standardisation of Biofuels – Biofuel Cities Workshop**

**Brussels, Belgium**

The workshop on the standardisation of biofuels is organised by the Biofuel Cities European Partnership and aims at identifying the possibilities for standardization on a European level of pure oils, residue fuels and biomass derivatives.

Fleet owners, logistic equipment constructors and biofuel suppliers are invited to prepare the ground for standards that may support installation permission, engine warranties and local licensing.

**For more information, visit:**

<http://www.biofuel-cities.eu>

### → 19–21 April 2009

**4<sup>th</sup> International Conference on Future Urban Transport. Access and Mobility for the Cities of Tomorrow**

**Göteborg, Sweden**

The event will feature a series of scientific state-of-the-art presentations that will contribute to furthering understanding regarding accessibility, mobility and transportation solutions for the future. The following topics will be addressed by leading city and business leaders: future directions for the city; delivering sustainable urban transport solutions; time, space and the need for access; social integration and economic development; financing and organisation of urban transport.

**For more information, visit:** <http://www.fut.se/>

**→ Further events are announced in the event centre of the Biofuel Cities website <http://www.biofuel-cities.eu>, which is updated regularly!**

