

Deriving Effective Least-Cost Policy Strategies for Alternative Automotive Concepts and Fuels

REPORT

on the Portuguese National Workshop

(Lisbon, 27/10/2010)



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A. General information

Title of the workshop:

Alternative fuels and technologies: Current practices and futures policies for passenger transportation

Date of the workshop: **27 October 2010**

Location: **Lisbon**

CIUL – Centro de Informação Urbana de Lisboa

Organisers:

- **CEEETA-ECO, Lda**
- **APVE – Portuguese Association for Electric Vehicle**
- **APVGN - Portuguese Association for Natural Gas Vehicle**
- **Lisboa E-Nova – Energy Agency of Lisbon**

Number of Participants:

56 + 7 (own staff and subcontractors)

Number of invitations sent:

124 by direct contact list.

more than 5000 by subcontractor's mailing list.

B. List of participants

Nr	Name	Institution	Email	Type ⁽¹⁾
1	Manuel Fernandes	CEEETA-ECO	manuelfernandes@ceeeta.pt	OS
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25	Filipe Moura	Instituto Superior Técnico	fmoura@ist.utl.pt	AC/R&D
26	Francisco Leitão	Faculdade de Ciências e Tecnologia-Universidade Nova de Lisboa	franciscoleitao@gmail.com	AC/R&D

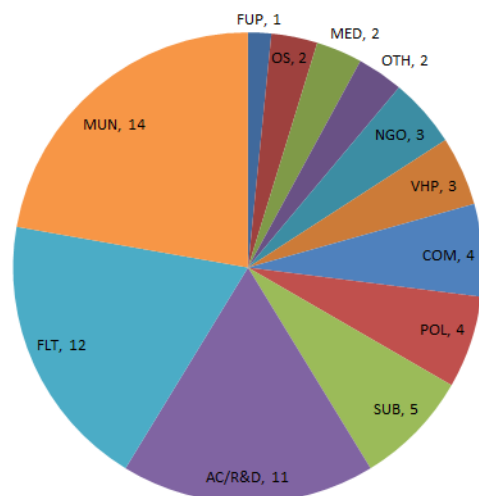
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(1) Stakeholder category (type):

AC=academia, **COM**= Commercial company, **FLT**=fleet, **FUD**=fuel distributor, **FUP**=fuel producer, **LEA**=local energy agency, **MED**=Media, **MUN**=municipality, **NGO**=non-governmental organisation, **OS**=own staff, **OTH**=other, **POL**=policy maker, **SUB**=subcontractor, **VHD**= vehicle dealer, **VHP**=vehicle (technology) provider.

Participants to Alter-Motive workshop were mainly from municipalities, fleet companies and universities. However many other sectors were represented at the workshop (see figure below).



Total number of participants: 63 (including own staff and subcontractors).

C. Detailed agenda of the Workshop

09:15	Registrations	
09:30	Welcome	Miguel Águas Lisboa E-Nova
09:40	Introduction to the theme	Manuel Fernandes CEEETA-ECO, Lda President IMTT
09:50	Alter-Motive Project: General overview of the Project and focus on national situation	Manuel Fernandes CEEETA-ECO, Lda
10:10	Main policy strategies regarding passenger transport at local and national levels	Isabel Seabra IMTT Fernando Pedro Moutinho Câmara Municipal de Lisboa Francisco Ferreira Quercus
11:00	Coffee break	
11:20	Alter-Motive Project: Action plan for a strategy towards a sustainable future European transport system (WP6)	Manuel Fernandes CEEETA-ECO, Lda
11:50	Round table on recent developments at local and national levels	Robert Stussi (moderator) APVE Jorge Figueiredo APVGN
13:00	Lunch	
14:30	Alter-Motive Project: State of the art on alternative fuels and alternative automotive technologies (WP2)	Mário Alves CEEETA-ECO, Lda
14:50	Round table and debate: New developments from local experiences Moderator: Prof. Margarida Coelho Aveiro University	Rocha Teixeira STCP Luís Santos SMTUC Luís Pereira Nunes BDP - Biodiesel Goreti Margalha Câmara de Beja (Mob. Elect.) Ricardo Bandeirinha Câmara Municipal de Lisboa
16:20	Conclusions	Robert Stussi APVE Jorge Figueiredo APVGN
16:30	End of workshop	Manuel Fernandes CEEETA-ECO, Lda

D. Workshop summary:

The Portuguese national workshop (see flyer in annex 1), that took place at Lisbon on the 27th October 2010, was organised by CEEETA-ECO with the help of the Lisbon Energy Agency¹ and two subcontractors (APVE² and APVGN³). Each participant received a folder with the programme, the Alter-Motive flyer, the questionnaire and some media partners' material. The organization of the workshop beneficieate from the institutional support from IMTT (National Body for Transport Mobility) and a media partner (Transportes em revista).

The performance indicators were fully achieved:

- The workshop included national experts as well as local and national policy makers.
- The workshop was organised during one day as required in the workprogramme.
- Participants to the workshop were about 60 people from a wide range of organisations.
- All presentations can be downloaded at the Lisboa E-Nova site (www.lisboaenova.org).

As the **feedback questionnaires** show (see annex 2), it was successful in many ways. A large number of people answering the questionnaire (about 90% or more) found the workshop useful and informative. And a majority of participants answered that their views or opinions have been influenced by the presentations and discussions.

Regarding the project, feedback questionnaires show (about 80% or more) that the project addresses sufficiently clearly issues to provide effectively new ideas or suggestions and that its results have a chance to positively influence the EU and national policies.

Feedback questionnaires also show that the environmental problem of biofuels is more a global concern than national one. However there is no a clear favourable opinion on environmental standards related to production of biofuels in Portugal. And only a small majority thinks that alternative fuels and technologies provide a solution for environmental friendly automotive mobility in near future.

Despite the large number of participants from universities, municipalities and fleet companies, **a wide range of Portuguese stakeholders** took part at the workshop: fuel producers, vehicle providers, environmental associations, private companies, policy makers and media. The spectrum of the stakeholders present at the workshop was therefore defined as appropriate.

Regarding the **current national policies**, the wide range of stakeholder didn't show a common concern. Each group claimed for different issues regarding their specific problem or sector. The major priority of the Transport Ministry regarding electric mobility was discussed but was not the main focus of the workshop given the fact that this has been already discussed in other forums and will continue to be so.

Debates have been judged as informative for the majority of the participants showing that the workshop was very useful for them. A lot of remarks from municipality representatives showed that their expectations regarding new alternative technologies are high but they remain

¹ Lisboa E-Nova – Energy Agency of Lisbon (<http://www.lisboaenova.org/>).

² APVE – Portuguese Association for Electric Vehicle (<http://www.apve.pt/>).

³ APVGN - Portuguese Association for Natural Gas Vehicle (<http://www.apvgn.pt/>).

cautious due to some bad experiences or the lack of adequate technology supply at this stage. But they showed willingness to test new experiences through pilot projects and are more and more interested in cooperation and information exchanges with other municipalities through specific networks like CIVITAS or ELTIS.

Regarding **future developments and recommendations**, the wide range of stakeholders represented at the workshop doesn't allow for the emergence of a consensual issue. Each group claimed for different issues regarding their specific problem or sector.

Fleet owners (including municipal fleets) are very cautious with AF&AAMT given, from one hand, the high capital and, in some cases, O&M costs they have to bear and, from another, the lack of reliability they have to face sometimes. So they are not ready to make a lot of experiences with different technologies or fuels.

The issues addressed:

- | | |
|---|----------|
| 1) Critical review of the state of the art | yes |
| 2) Recent and planned policy development | yes |
| 3) Action plan for an EU strategy towards a sustainable transport | yes |
| 4) Coordination/harmonisation of the support systems | no |
| 5) Specific national requirements | no |
| 6) Policy integration | yes |
| 7) Other (please specify) | yes / no |

E. Specific report on the debate:

The **first part of the workshop** (morning) was dedicated to present and discuss national and local policies and measures.

General overview of Alter-Motive Project and focus on national situation by Manuel Fernandes (CEEETA-ECO).

This communication was design to present the overall project, its objectives, tasks and achievements at this stage but also to better integrate the project discussion into the national context.

Main policy strategies regarding passenger transport at local and national levels by Isabel Seabra (IMTT)

The representative of the Transport Ministry presented the current priorities of the governmental in the road transport activities, namely the Mobi-e programme (www.mobi-e.pt) regarding electric vehicles and electric mobility and a programme for adaptation of conventional cars to electric cars. Electric mobility for individual passenger transport is considered to have strong positive effects on environmental problems (e.g. air emission, noise, etc.) and energy security but doesn't answer other issues like congestion and accidents.

The Mobi-e network is an intelligent charging network throughout Portugal that can be used to charge electric vehicles. It will be accessible to all users and compatible with all makes of electric vehicles. The Mobi-e network will include charging points on public thoroughfares, in

car parks, and at other locations where citizens can restore battery power simply and conveniently. The pilot phase includes the installation of 1,300 normal charging points and 50 fast charging points in places of public access in Mainland Portugal.

Mrs Seabra also presented the important work developed by IMTT promoting debate on sustainable transport by organising workshops, collecting and launching proposals for further debates and comments from stakeholders, participating on national policy instruments with implications on the transport sector.

Main policy strategies regarding passenger transport at local level by Fernando Pedro Moutinho (Lisbon Municipality)

Mr Moutinho referred that Lisbon has been losing population in the last decades from 0.4 million people in the 80's to about 0.5 million now. This strong decrease in population has induced a strong increase in transport. This feature requires an adequate management of parking and mobility infrastructures to disincentive individual passenger transport and promoting alternative mobility (public transport, bicycles, motorcycles, etc.).

Main policy strategies regarding passenger transport at local and national levels by Francisco Ferreira (Quercus)

The representative of Quercus considered the new policy presented by the representative of IMTT on transport planning a progress but stated that this preoccupation came too late if we consider that the main infrastructures have been built and thus it will be difficult to influence significantly the current situation toward a more sustainable mobility.

Quercus is critic of the EV programme considering that incentive to EV would be more effective if applied to the substitution of conventional cars.

There is no need for new technologies, the priority should be given to the implementation of policies and measures that have been defined but not implemented or not completely.

Alter-Motive Project: Action plan for a strategy towards a sustainable future European transport system (WP6) by Manuel Fernandes (CEEETA-ECO).

This communication was design to discuss the current findings of the project and their adequacy to the national context.

The **second part of the workshop** (afternoon) was mainly dedicated to present and discuss cases studies and local implementations.

Alter-Motive Project: State of the art on alternative fuels and alternative automotive technologies (WP2) by Mário Alves (CEEETA-ECO).

This communication was design to present the results of the WP2.

State of the art and new development at Porto urban transport by Rocha Teixeira (STCP).

Presentation of Mr Rocha Teixeira included the case study of Porto metropolitan area regarding the substitution of diesel buses by NG buses (54% of the fleet en 2009). This measure has allowed the reduction of air emissions and maintenance costs and the increase in quality of service (e.g. noise). Despite the increased capital cost (20%), the payback time was estimated at 7 to 8 years. However, the new standards for diesel engines which have increased energy efficiency and strongly reduced air emissions could induce a change in current policy if no equivalent improvements are made in NG engines.

State of the art and new development at Coimbra urban transport by Luís Santos (SMTUC).

Presentation of Mr Santos included the case study of Coimbra regarding the introduction of small electric buses for the old district and measures implemented to promote sustainable mobility. The latter includes the improvement of parking tariffs and accesses, the development of park and ride services at the main entrances of the city, the implementation of the Mobi-e programme (Coimbra is one of the 25 cities include in the Mobi-e programme) which includes the introduction of charging points in the city.

State of the art and new development regarding biodiesel production by Luís Pereira Nunes (BDP).

Mr Pereira Nunes presented the current situation of the biodiesel market in Europe and Portugal and the legal framework in Portugal, namely for small producers. Since 2011, biofuels will no longer benefit from tax exemption with an exception for small producers.

State of the art and new development at Beja urban transport by Goreti Margalha (Beja Municipality).

Mrs Goreti Margalha presented the main local mobility policies for a small city with an historical centre. Main measures are related with reformulating the use of streets and park in order to reduce the possibility of using car in the city centre and the increase of public transport.

Beja city is also member of the Mobi-e programme, developing the infrastructure and charging points to promote electric vehicles.

State of the art and new development at Lisbon Municipality by Ricardo Bandeirinha.

Mr Bandeirinha is working at the municipal department in charge of the municipal fleet. He presented the main measures implemented or decided regarding alternative fuels and alternative transport technologies. The municipality has been pioneer in the use of biodiesel in Portugal but several problems have caused the abandon of this project. Some tests have been made with bifuel cars (NG and gasoline) that gave good results. Later on the Lisbon municipality decided to buy and operate some NG heavy vehicles for waste management with positive results. Recently the municipality purchased some electric utility vehicles for urban services. Despite these experiences with alternative vehicles, diesel and gasoline powered vehicles are still predominant in the municipality fleet (more than 93% in 2010).

The municipality has also performed a higher control in car use and maintenance. This policy has allowed for a strong reduction in fossil fuel consumption (less 25% from 2006 to 2010).

In the near future the municipality wants to increase the share of AF&AAMT: about 10% for electric vehicles, increasing slightly the share of NG and hybrid vehicles.

F. Overall conclusions

The representative of the Transport Ministry presented the main focus of the current national policy regarding passenger road transport: the Mobi-e programme (www.mobi-e.pt/). This programme was motivated by the still strong dependency of the transport sector on fossil fuels and the large investment in new storage hydropower and windpower planned until 2020.

This has led to the creation of the Electric Mobility Network. An integrated network linking various existing points in Portugal, organised by the management entity Mobi-e, in which it will be possible to recharge electric vehicles, using a charge card.

Electric mobility for individual passenger transport is considered to have strong positive effects on environmental problems (e.g. air emission, noise, etc.) and energy security but doesn't answer other issues like congestion and accidents. This programme requires an adequate management of parking and mobility infrastructures to disincentive individual passenger transport in the cities and to promote alternative mobility (public transport, bicycles, motorcycles, etc.).

Quercus criticised the EV programme considering that giving financial incentives to EV would be more effective if applied to the substitution of conventional cars.

Presentations from municipality representatives and local transport companies show that local policy maker are moving toward a more sustainable transport policy implementing several measures to reduce individual motorised transport and promote alternative mobility. However these measures are not always integrated through a coherent plan which could reduce their effectiveness.

Another important finding was given through the STCP example (Porto) showing that measures to improve current fossil technologies (environmental standards) can induce a change in current policy of fleet owners if no equivalent improvements are made in alternative engines.

G. Recommendations

Some recommendations can be made for EU and national policy makers.

At the EU level:

- Coordination of national EV plans in order to implement EU wide technological solutions instead of national ones.
- More careful management of environmental standards which could lead to the abandon of current implementations regarding AF&AAMT.

At the national level:

- Coordination of national plans with local plans.
- More careful implementation of the new EV programme to avoid the abandon of previous energy efficiency measures.
-

At the local level:

- More coordination regarding mobility measures. Otherwise some of them could be implemented only partially or conflict with other.

ANNEXES

1. Flyer on national workshop



www.alter-motive.org

Projecto co-financiado por:

Intelligent Energy  Europe

Workshop

Combustíveis e veículos alternativos – Práticas correntes e futuras linhas de orientação política para o transporte de passageiros (Projecto Alter-Motive)

Data: 27 de Outubro de 2010

Local: CIUL – Centro de Informação Urbana de Lisboa (Centro Comercial Picoas Plaza; R. do Viriato, 13, Núcleo 6-E1º. 1050-233 Lisboa)

A participação é gratuita, mas as inscrições são obrigatórias (www.lisboaenova.org).

A Conferência não tem tradução simultânea

PROGRAMA:

09.15	Recepção dos participantes	
09:30	Boas Vindas	Miguel Águas Lisboa E-Nova
09:40	Introdução ao tema	Manuel Fernandes CEEETA-ECO, Lda Presidente (*) IMTT
09:50	Projecto Alter-Motive: Apresentação geral do projecto e enquadramento nacional	Manuel Fernandes CEEETA-ECO, Lda
10:10	Principais linhas de orientação política em matéria de transporte de passageiros ao nível nacional e local	Isabel Seabra IMTT Fernando Nunes da Silva Câmara Municipal de Lisboa Francisco Ferreira Quercus
11:00	Pausa para café	
11:20	Projecto Alter-Motive: Action plan for a strategy towards a sustainable future European transport system (WP6)	Manuel Fernandes CEEETA-ECO, Lda
11:50	Mesa redonda com os oradores da sessão anterior e debate: Os desenvolvimentos recentes e programas planeados ao nível nacional e local	Robert Stussi (moderador) APVE Jorge Figueiredo APVGN
13:00	Almoço livre	
14:30	Projecto Alter-Motive: Estado da arte sobre modos de propulsão e tecnologias alternativos para o transporte individual (WP2)	Mário Alves CEEETA-ECO, Lda
14:50	Mesa redonda e debate: Novos desenvolvimentos Moderadora: Margarida Coelho Professora da Universidade de Aveiro	Rocha Teixeira STCP Luís Santos SMTUC Luís Pereira Nunes BDP - Biodiesel Eng.ª Goreti Margalha Câmara de Beja (Mob. Elect.) Eng. João Sabino Câmara Municipal de Lisboa
16:20	Conclusões	Robert Stussi APVE Jorge Figueiredo APVGN
16:30	Encerramento	Manuel Fernandes CEEETA-ECO, Lda

(*) – por confirmar

Organização



Apoio institucional



Media Partner



2. Matrix of answers from the questionnaire

Questions	Answers' number								N° of replies
	0	1	2	3	4	5	yes	no	
A Questions about the project:									
A1 In your opinion, based on the presentation of the ALTER-MOTIVE Project, do you think that the Project addresses sufficiently clearly issues to provide effectively new ideas or suggestions? (rank 0-5, where 5=very clearly)	1	2	2	14	12	2			33
A2 In your opinion, based on the presentation of the ALTER-MOTIVE Project, do you think that its results have a chance to positively influence the EU policy? (rank 0-5, where 5=great chance)	2	1	4	15	9	2			33
A3 In your opinion, based on the presentation of the ALTER-MOTIVE Project, do you think that its results have a chance to positively influence the national policy of your country? (rank 0-5, where 5=great chance)	2	3	6	15	6	1			33
A4 Do you have any suggestions concerning the scope and goals of the project? (give a narrative answer separately)							4	29	33
B Questions about the workshop:									
B1 Do you think that Workshop was useful? (rank 0-5, where 5=very useful)			4	2	15	12			33
B2 Did you find the presentations given informative? (rank 0-5, where 5=very informative)			2	5	18	8			33
B3 Did you find the discussion useful from your point of view? (rank 0-5, where 5=very useful)			3	5	16	8			32
B4 Did you find the spectrum of the stakeholders present at the Workshop appropriate? (rank 0-5, where 5=very appropriate spectrum)				9	14	9			32
If not please specify who was missing									
B5 Has the Workshop and discussion as a whole influenced your views and opinions on the subjects raised? (yes/no)							23	10	33
Concerning the above: if yes and if you wish, please specify separately									
C Questions of a general nature:									
C1 Do you think that in your country there is a serious conflict between wide use of biofuels and nutrition needs? (yes/no)							9	23	32
C2 Do you think that there is a serious conflict between wide use of biofuels and nutrition needs on the global scale? (yes/no)							24	7	31
C3 Do you think that in your country there is a serious conflict between wide use of biofuels and wilderness protection? (yes/no)							5	27	32
C4 Do you think that there is a serious conflict between wide use of biofuels and wilderness protection, on the global scale? (yes/no)							19	12	31
C5 Do you think that the environmental standards related to production of biofuels are good in your country? (rank 0-5, where 5=very good)	3	2	6	11	2	1			25
C6 Do you think that biofuels, fuel cell cars, electric cars etc. provide a solution for environmental friendly automotive mobility in near future (15 – 20 years)? (rank 0-5)	2	4	5	13	5	2			31
C7 In your personal opinion, do you think that alternative fuels and electric vehicles alone provide a sufficient environmental solution, or that emphasis should be put rather on systemic solutions (public transport, rail, behavioural change, working time/place re-organization, influencing the settlement structure, e.g. minimizing the urban sprawl)? Please rank the importance of including the latter. (rank 0-5, where 5=very important)		1		8	9	13			31

3. Some pictures from the national workshop









