

The European Union's Instrument for Pre-Accession Assistance (IPA)

Regional Environmental Network for Accession (RENA)

*Regional Workshop
CO2 emissions from road
transport, fuel quality and
fluorinated gases
WG 2 – Activity 2.1*

Istanbul, Turkey (18 May 2011)



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Human Dynamics KG

CO₂ emissions from road transport, fuel quality and fluorinated gases – Regional Workshop
18 May 2011, Istanbul, Turkey

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1. Introduction

1.1 CO₂ emissions from transport

Road transport contributes about one-fifth of the EU's total emissions of carbon dioxide (CO₂), the main greenhouse gas. While emissions from other sectors are generally falling, those from road transport have continued to increase since 1990. Eager to tackle climate change, the European Commission has a comprehensive strategy designed to help the EU reach its long-established objective of limiting average CO₂ emissions from new cars. In a progress report (COM/2010/0656 final), adopted in November 2010, the European Commission concludes that most of the measures contained in the 2007 strategy have already been implemented or are in the process of being implemented.

The goal of reducing new car emissions to 120 g CO₂/km by 2012, as defined in the strategy, is however not likely to be achieved because some measures have been implemented late. Despite a low probability of achieving the 2012 target, the strategy, and the measures it includes, has played an important role in reducing CO₂ emissions from light-duty vehicles.

Regulation (EC) 443/2009 setting emission performance standards for new passenger cars as adopted in 2009 is the cornerstone of the EU's strategy to improve the fuel economy of cars and ensures that average emissions from new passenger cars in the EU do not exceed 120 gCO₂/km with a long term target of 95 gCO₂/km in 2020.

Under the legislation, the Commission sets down rules on the data required to monitor the CO₂ emissions of new cars. (**Commission Regulation (EU) No 1014/2010** on monitoring and reporting of data on the registration of new passenger cars).

In addition, in December 2010 the European Parliament and the Council reached agreement on the final text of the so called **Vans Regulation**. The text is closely modeled on the legislation, adopted in 2009, limiting CO₂ emissions from passenger cars.

The main objective of the vans Regulation is to cut CO₂ emissions from vans to 175 grams of CO₂ per kilometer by 2017, phasing in the reduction from 2014, and to reach 147g CO₂/km by 2020. These cuts represent reductions of 14% and 28% respectively compared with the 2007 average of 203 g/km.

To help consumers choose vehicles with low fuel consumption when they buy cars, the EU has legislation on the CO₂ labeling of cars (**Directive 1999/94/EC**). Consumer information, in the form of labels showing a vehicle's fuel efficiency and CO₂ emissions, must be displayed at the car's point of sale, on posters and other promotional material, and in specific guides.

The Fuel Quality Directive Directive 98/70 regulates petrol and diesel standards focusing on sulphur, oxygenate and hydrocarbons contents, and bans leaded petrol as from 2000. It also indicates some derogations as regards these standards. **Directive 2009/30** is the last act (out of in total 4) that amended elements of Directive 98/70. In particular it introduces the GHG element through the following provisions:

- o Certain suppliers are designated by Member States to be responsible for monitoring and reporting life cycle greenhouse gas emissions per unit of energy from fuel and energy supplied.
- o With effect from 1 January 2011, suppliers shall report annually, to the authority designated by the Member State, on the greenhouse gas intensity of fuel and energy supplied within each Member State

- Suppliers are required to gradually reduce life cycle greenhouse gas emissions by 10 % by 31 December 2020 at the latest. The Directive provides intermediary objectives for the course of this time period.
- It introduces sustainability criteria for biofuels (eg not to be made from primary forests or high biodiverse grassland)
- The greenhouse gas emission saving from the use of biofuels must reach 35 %. With effect from 1 January 2017, the saving must reach 50 % and 60 % from 2018 onwards.

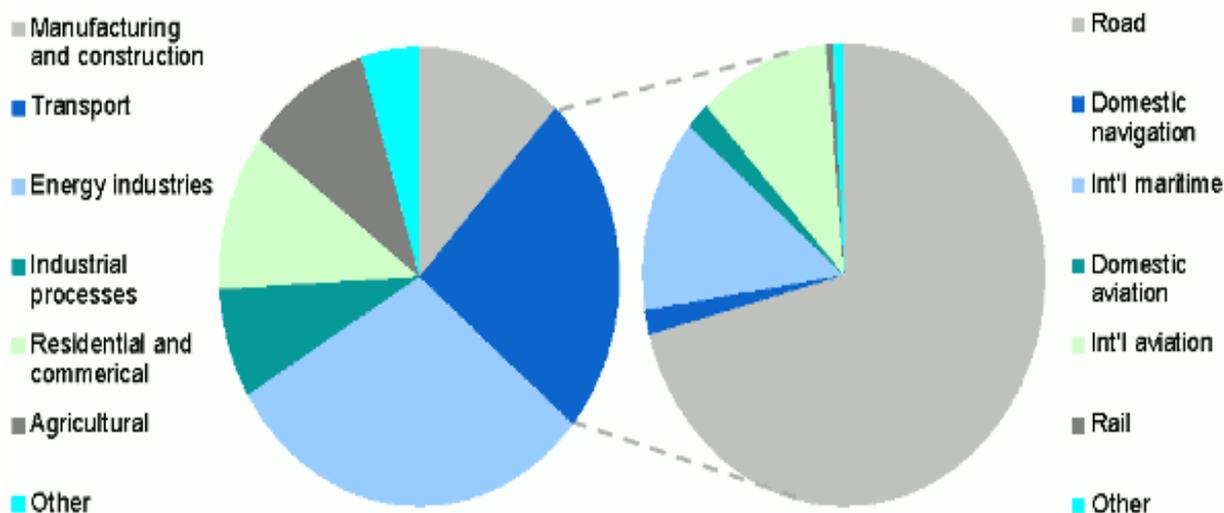
1.2 Fluorinated gases

Greenhouse gases covered by the Kyoto Protocol are amongst others, three groups of fluorinated greenhouse gases (the so-called "F-Gases"): hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

Fluorinated Greenhouse Gases are used in several types of products and applications, mainly as substitutes of ozone-depleting substances such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and halons which are being phased out under the Montreal Protocol. Although F-Gases have no ozone-depleting properties, most of them have a very high global warming potential.

Through the European Climate Change Programme (ECCP) launched in 2000, the European Commission identified and developed cost-effective measures to enable the European Union to meet its Kyoto Protocol target of reducing its greenhouse gas emissions by 8% compared to 1990.

On the basis of the work of F-gases Working Group under the European Climate Change Programme (ECCP) two acts were prepared and subsequently adopted in the field of F-gases, the so-called "F-Gas Regulation" (Regulation (EC) No 842/2006) and "MAC Directive" (on emissions from air conditioning systems in motor vehicles – Directive 2006/40/EC), in 2006, aiming at the reduction of emissions of F-gases.



2. The Workshop (18 May, 2011)

2.1 General

On **18 May 2011** a regional RENA workshop on **CO₂ emissions from road transport, fuel quality and fluorinated gases** was held in Hotel Grand Öztanik, Taksim, Istanbul, **Turkey**.

The primary objective of the workshop was to increase knowledge of the elements of the EU climate policies and legislation on CO₂ from cars and vans - and F-gases.

The **first part** of the workshop addressed CO₂ emissions from cars and vans. The workshop then got into more detail into the latest developments on reducing CO₂ emissions from passenger cars and light-commercial vehicles, and explained the Labeling Directive aiming at ensuring that information related to the fuel economy of new passenger cars offered for sale or lease is made available to consumers in order to enable consumers to make an informed choice. In addition the fuel quality Directive, including the final amendments have been introduced.

The **second part** of the workshop then focused on implementing the provisions of the F-gases (Regulation (EC) No 842/2006 on certain fluorinated greenhouse gases (the F-Gas Regulation)), which covers mainly stationary applications.

The target group of the workshop included relevant policy makers of the relevant Ministries of the RENA countries in the field of climate change.



In the first half of 2011, six regional RENA climate events have been implemented. At this moment the schedule of events (until 30 June 2011) is as follows:

- ✓ First event: Annual RENA Working Group Meeting on Climate in Zagreb, Croatia on 22 February 2011 (completed)
- ✓ Second Event: Regional Workshop on the Climate and Energy Package in Budva, Montenegro on 21 and 22 March 2011 (completed)
- ✓ Third event: Regional Workshop on the revised EU –ETS in Istanbul, Turkey on 16 and 17 May 2011
- ✓ Fourth event: Regional Workshop on EU Policies and legislation on CO₂ emissions from road transport, fuel quality and fluorinated gases -gases in Istanbul, Turkey on 18 May 2011 (**this workshop**)
- ✓ Fifth event: Regional workshop on the Identification of follow-up national ReCAP events on concrete climate actions in Bonn, 12 June 2011
- ✓ Sixth event: Workshop on the Monitoring Mechanism Decision (280/2004/EC) and its implementing provisions in Skopje on 30 June and 1 July, 2011.

The RENA facilitators were:

- ✓ Imre Csikós (Coordinator of the RENA Climate Working Group)
- ✓ Zisis Samaras (RENA expert)
- ✓ Tomas Sander Poulsen (RENA expert)
- ✓ Ike van der Putte (RENA Team Leader)

The list of participants is attached in **Annex 1**. The agenda of the workshop is attached in **Annex 2**.

2.2 Proceedings 18 May 2011

All presentations are presented under separate cover on the website of RENA (www.renainetwork.org).

1. After a short welcome by Mr Imre Csikós, the meeting was opened by explaining the purpose of the meeting. Mr Ike van der Putte then provided a brief outline of the RENA programme and the planned activities under the Climate Component of RENA.
2. Mr Csikós then presented a detailed overview of the legislative framework. In particular the following was addressed in detail:
 - ✓ Regulation (EC) No 443/2009: Emission performance standards from new passenger cars
 - ✓ Regulation setting emission standards for vans
 - ✓ Directive 1999/94/EC on consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars
 - ✓ Directive 1998/70/EC Fuel quality Directive
 - ✓ Directive 2009/30/EC on fuel quality (amending number of elements of Directive 1998/70/EC)
 - ✓ White Paper Roadmap towards a competitive and resource efficient transport system (28 March 2011)

Regulation (EC) No 443/2009: Emission performance standards from new passenger cars

Passenger cars alone are responsible for around 12% of total EU emissions of carbon dioxide (CO₂), the main greenhouse gas. As part of the EU's efforts to tackle climate change, the European Commission proposed legislation, back in 2007, setting emission performance standards for new passenger cars. That legislation, adopted in 2009 by the European Parliament and the Council, is the cornerstone of the EU's strategy to improve the fuel economy of cars and ensure that average emissions from new passenger cars in the EU do not exceed 120 gCO₂/km.

Some key elements of the adopted legislation are as follows:

- ✓ Limit value curve
The fleet average to be achieved by all cars registered in the EU is 130 grams per kilometre (g/km) by 2012, a 19% reduction. A so-called limit value curve implies that heavier cars are allowed higher emissions than lighter cars while preserving the overall fleet average.
- ✓ Phasing-in of requirements
In 2012, 65% of each manufacturer's newly registered cars must comply on average with the limit value curve set by the legislation. This will rise to 75% in 2013, 80% in 2014, and 100% from 2015 onwards.
- ✓ Lower penalty payments for excess emissions until 2018
If the average CO₂ emissions of a manufacturer's fleet exceed its limit value in any year from 2012, the manufacturer has to pay an excess emissions premium for each car registered. This premium

amounts to €5 for the first g/km of exceedance, €15 for the second g/km, €25 for the third g/km, and €95 for each subsequent g/km. From 2019, already the first g/km of exceedance will cost €95.

✓ Long term target

A target of 95g/km is specified for the year 2020. Details of how this target will be reached, including the excess emissions premium, will have to be defined in a review to be completed no later than the beginning of 2013.

✓ Eco-innovations

Because the test procedure used for vehicle type approval is outdated, certain innovative technologies cannot demonstrate their CO₂-reducing effects under the type approval test. As an interim procedure until the test procedure is reviewed by 2014, manufacturers can be granted a maximum of 7g/km of emission credits on average for their fleet if they equip vehicles with innovative technologies, based on independently verified data.

✓ Pools acting jointly to meet emission standards

Manufacturers can group together to form a pool which can act jointly in meeting the specific emissions targets. In forming a pool, manufacturers must respect the rules of competition law and the information that they exchange should be limited to average specific emissions of CO₂, their specific emissions targets, and their total number of vehicles registered. In addition, independent manufacturers who sell fewer than 10,000 vehicles per year and who cannot or do not wish to join a pool can instead apply to the Commission for an individual target. Special purpose vehicles, such as vehicles built to accommodate wheelchair access, are excluded from the scope of the legislation.



✓ Monitoring CO₂ emissions from new passenger cars

Under the legislation, the Commission sets down rules on the data required to monitor the CO₂ emissions of new cars. Monitoring reports can be found under the documentation tab above.

New Regulation: Emission performance standards from new vans

As part of its strategy to cut CO₂ emissions from light-duty vehicles, in October 2009 the European Commission made a legislative proposal to reduce CO₂ emissions from vans ('light commercial vehicles'). In December 2010 the European Parliament and the Council reached agreement on the final text of the vans Regulation which modified several points of the Commission's proposal. The text is **closely modelled** on the legislation, adopted in 2009, limiting CO₂ emissions from passenger cars.

The main objective of the vans Regulation is to cut CO₂ emissions from vans to 175 grammes of CO₂ per kilometre by

2017, phasing in the reduction from 2014, and to reach 147g CO₂/km by 2020. These cuts represent reductions of 14% and 28% respectively compared with the 2007 average of 203 g/km.

Directive 1999/94/EC on consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars

To help consumers choose vehicles with low fuel consumption when they buy cars, the EU has legislation on the CO₂ labelling of cars - Policies - Climate Action - European Commission. Consumer information, in the form of labels showing a vehicle's fuel efficiency and CO₂ emissions, must be displayed at the car's point of sale, on posters and other promotional material, and in specific guides.

Information should be provided to the consumer as follows:

- ✓ a fuel economy label for all new cars to be displayed at the point of sale;
- ✓ a poster (or a display) showing the official fuel consumption and CO₂ emission data of all new passenger car models displayed or offered for sale or lease at or through the respective point of sale;

- ✓ a guide on fuel economy and CO₂ emissions; and
- ✓ all promotional literature must contain the official fuel consumption and specific CO₂ emission data for the passenger car model to which it refers.

Directive 2009/30/EC on fuel quality (amending number of elements of Directive 1998/70/EC)

Fuel quality is an important element in reducing greenhouse gas emissions from transport. It ensures that air pollutant emissions from vehicles are optimally reduced; a single fuel market is established; and vehicles operate correctly everywhere in the EU. EU legislation requires a reduction of the greenhouse gas intensity of the fuels we use in our vehicles by up to 10% by 2020 – a Low Carbon Fuel Standard. The same legislation has previously required drastic reductions in the sulphur content of fuels, enabling the deployment of vehicle technologies to reduce greenhouse gas and air pollutant emissions, delivering substantial health and environmental benefits.

Some key elements of the adopted legislation are as follows:

✓ **Applicable fuels and intermediate targets**

The legislation applies to all petrol and diesel used in road transport and gasoil used in non-road-mobile machinery. The 10% reduction target is made up of:

- a 6% reduction in the greenhouse gas intensity of fuels by 2020, with intermediate indicative targets of 2% by 2014 and 4% by 2017;
- an additional 2% reduction subject to developments in new technologies such as carbon capture and storage (CCS); and
- a further 2% reduction to come from the purchase of Clean Development Mechanism (CDM) credits.

Suppliers can choose to group together to meet these targets jointly.

✓ **Baseline emissions for calculating reductions**

The greenhouse gas intensity of fuels will be calculated on a life-cycle basis, meaning that the emissions from the extraction, processing and distribution of fuels are included. Life-cycle greenhouse gas emission reductions will be calculated from a 2010 baseline of fossil fuel greenhouse gas intensity.

✓ **Biofuel sustainability**

For biofuels to count against the greenhouse gas emission reduction targets they must meet certain sustainability criteria set out in the Directive to minimise the undesired impacts from their production. These include that:

- the greenhouse gas emissions must be at least 35% lower than the fossil fuel comparator. From 2017 this increases to 50% and from 2018 the saving must be at least 60%;
- the raw materials for the biofuels can not be sourced from land with high biodiversity or high carbon stock.

✓ **Indirect land use change arising from biofuel use**

As with fossil fuels, the greenhouse gas emissions from biofuels should be calculated on a life-cycle basis. Emissions from converting land to agricultural use can contribute significantly to the greenhouse gas emissions from biofuel production.



Emissions from directly converting land to agricultural use for producing biofuels (direct land use change) must be reported under the current approach. However, increased demand for agricultural products for use in biofuel production may lead to more land being converted for agriculture elsewhere. This indirect land use change leads to increased emissions. It is important that the emissions from both direct and indirect land use change are included when comparing the greenhouse gas impacts of biofuels to the fossil fuels being replaced.

✓ Non-GHG Fuel Quality

As well as setting targets to reduce the GHG intensity of fuels, the legislation also controls other elements of fuel quality primarily linked to air pollutant emissions. In 2001, sulphur content was over 50ppm for petrol and over 200ppm for diesel. In 2009 the average sulphur content of both types of fuel had fallen below 10ppm thanks to the mandatory introduction of sulphur-free fuels under this legislation.

White Paper Roadmap towards a competitive and resource efficient transport system (28 March 2011)

The European Commission adopted a roadmap of **40 concrete initiatives** for the next decade to build a competitive transport system that will increase mobility, remove major barriers in key areas and fuel growth and employment. At the same time, the proposals will dramatically reduce Europe's dependence on imported oil and cut carbon emissions in transport **by 60%** by 2050

By 2050, key goals will include:

- ✓ No more conventionally-fuelled cars in cities.
- ✓ 40% use of sustainable low carbon fuels in aviation;
- ✓ at least 40% cut in shipping emissions.
- ✓ A 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport.
- ✓ All of which will contribute to a 60% cut in transport emissions by the middle of the century

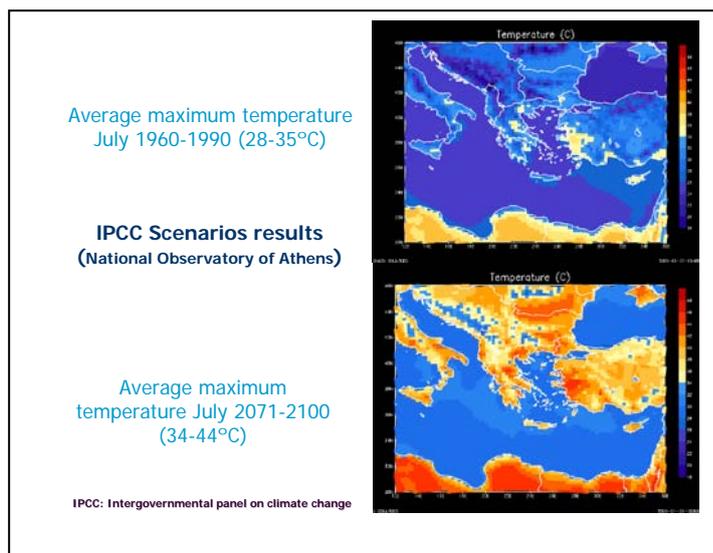
3. Mr Samaras then presented an overview of the technical measures and initiatives proposed to date to reduce CO₂ emissions from road transport:

✓ Introduction – Global trends and Pressures

There has been a rapid road transport sector increase world wide. Between 2000 – 2030 the fleets of EU, USA, India and China will increase by 630 million vehicles. Between 1995 – 2005 it is expected that there will be a 29% increase in total vehicle-kilometers (EU15).

2005-2030 (EU forecasts) :

- 40% increase for passenger cars
- 67% for light duty trucks



Commitments for the future must include therefore the necessity to reduce CO₂ emissions drastically, in order to ensure that today the costs of CO₂ reduction measures will be lower than the costs of global warming effects.

✓ The regulatory framework in the EU

See presentation by Mr Csikós. A target of 95g/km is specified for the year 2020.

✓ Assessment of available CO₂ reduction technologies at vehicle-engine level

An overview was presented of emission reduction effects following

measurements:

- Vehicle weight decrease
- Better aerodynamic characteristics
- Powertrain efficiency improvement (series of measures)
- Low rolling resistance tires (LRRT) application

- Tire pressure monitoring systems (TPMS)
- Low viscosity lubricants (global, easy to employ option)
- Hybridization
- Biofuels

Each reduction potential can achieve a figure between 2 - 6%, depending on the proposed measure. The CO₂ reduction potential of combined technological options is lower than that of each individual option.

✓ **Hybrids**

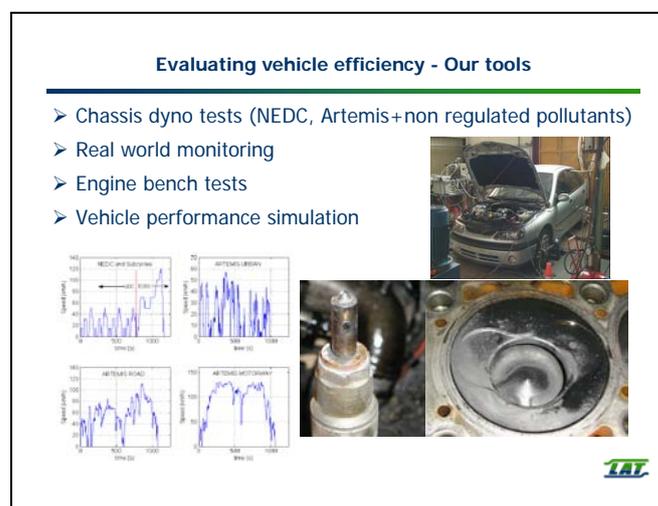
An explanation is given of what are “hybrids”. (Muscle hybrid; Mild Hybrid; Full hybrid; Plug in Hybrid). A plug in hybrid has start-stop system; regenerative braking; smaller engines with same performance; only electric power used in driving; Recharge batteries from the wall plug. Tests showed that the GHG Life cycle GHG emissions benefits (as compared to conventional driving) mainly relate to urban driving. The benefits for motorway driving are relatively small.

✓ **Biofuels**

The CO₂ reduction potential of various options was quantified.

✓ **Overall conclusions**

- Combined improvement lower than the sum of each technology’s potential
- 130g/km target achievable until 2015 if:
 - Realistic improvements in vehicle characteristics: - 10g/km
 - Improvement of average powertrain efficiency by 10%: -12 g/km
 - Adopt start stop function/minor powertrain assist: -5 g/km
- Target 2020: 95g/km appears impossible at the moment without hybridisation
- Second pillar of the integrated approach 10g/km – mainly biofuels
- H₂ : Unlikely to be introduced in the next 10 years
- Electric vehicles can help radically tackle CO₂ emissions, but important issues need to be addressed (power generation) and is unlikely to make an impact before 2020



4. Mr Poulsen presented the an overview of the EU F-gas regulation:

Greenhouse gases covered by the Kyoto Protocol are amongst others, three groups of fluorinated greenhouse gases (the so-called "F-Gases"): hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). Fluorinated Greenhouse Gases are used in several types of products and applications, mainly as substitutes of ozone-depleting substances such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and halons which are being phased out under the Montreal Protocol. Although F-Gases have no ozone-depleting properties, most of them have a high global warming potential. Hydrofluorocarbons (HFCs) are the most common group of F-Gases. They are used in various sectors and applications such as refrigerants in refrigeration, air conditioning and heat pump equipment, as blowing agents for foams, as fire extinguishants, aerosol propellants and solvents. Perfluorocarbons (PFCs) are typically used in the electronics sector (e.g. for plasma cleaning of silicon wafers) as well as in the cosmetic and pharmaceutical industry (extraction of natural products like nutraceuticals and flavours), but to a minor extent also in refrigeration often in combination with other

gases. In the past PFCs were used as fire extinguishants and can still be found in older fire protection systems.

Sulphur hexafluoride (SF₆) is mainly used as an insulation gas and for extinguishing the switching arc in highvoltage switchgear and as a cover gas in magnesium and aluminium production.

Through the European Climate Change Programme (ECCP) launched in 2000, the European Commission identified and developed cost-effective measures to enable the European Union to meet its Kyoto Protocol target of reducing its greenhouse gas emissions by 8% compared to 1990.

On the basis of the work of the ECCP fluorinated gases working group and several studies, the European Commission made a legislative proposal, which led to the adoption of two acts, the so-called "F-Gas Regulation" and "MAC Directive" (on emissions from air conditioning systems in motor vehicles), in 2006.

The "F-Gas Regulation", supplemented by 10 implementing acts (Commission Regulations), lays down specific requirements for the different stages of the whole life cycle of F-Gases, from the production to end of life. Consequently, different actors are affected, including producers, importers and exporters of F-Gases, manufacturers and importers of certain F-Gas containing products and equipment and operators of the equipment.

The aim of the F-Gas Regulation is to reduce emissions of fluorinated greenhouse gases through:

- ✓ better containment of F-Gases in their applications
- ✓ recovery of F-Gases from products and equipment reaching their end of life
- ✓ training and certification of technical personnel and companies working with F-Gases
- ✓ reporting of production, import and export data within the EU
- ✓ labelling of certain products and equipment containing those gases
- ✓ the prohibition of placing on the market some products containing F-Gases and the control of use in some specific applications.

The necessary actions for compliance include:

- ✓ Enforce ban of certain uses of F-gases and products containing F-gases
- ✓ Ensure training of personel working with F-gases
- ✓ Establish appropriate recovery systems for F-gases
- ✓ Ensure appropriate infrastructure for destruction of F-gases
- ✓ Control with import/export of F-gases
- ✓ Yearly national reporting of F-gas emissions to IPCC
- ✓ Ensure industry sectors' reporting of F-gases to EU

The European Commission is currently carrying out a wide-ranging evaluation of the Regulation. A report on the results of this evaluation will be published in 2011.

The presentation was completed with an overview of Danish actions and reporting of F-gases. In addition special emphasis was put on the IPCC methods for calculating the emissions from products and processes.

Recommendations included

- ✓ Introduce tax on F-gases to improve leakage control and recovery
- ✓ Make agreement with importers to avoid sale of F-gases to non qualified/trained personnel in handling and recovery of refrigerants
- ✓ Establish a "F-gas unit" supporting sectors in compliance
- ✓ Ensure control with recovery of SF₆ in power sector
- ✓ Introduce Tier 2 (actual emission) in report

2.3 Evaluation of the workshop

The results of the evaluation of the event on 18 May 2011 is shown hereunder (reference is made to **Annex 4**). 20 out of 24 participants filled the evaluation form. The Evaluation showed that the expectations of the participants as regards the contents of the workshop were met:

- ✓ **92% of the participants** indicated that the **objectives** of the workshop **were met** (rated between good and excellent).
- ✓ **84% of the participants** indicated that the **content** of the workshop was **well suited** to their level of understanding and experience (rated between good and excellent); **61% indicated** that the **workshop was relevant** and informative (rated between good and excellent)
- ✓ **100% of the participants** indicated that the workshop **facilitators were well prepared and knowledgeable** on the subject matter. In addition **100% indicated** that attending the workshop was **time well spent** (rated between good and excellent)
- ✓ In total we have received one negative feedback on the following point: One participant indicated that that the workshop was not practical enough and that the mix between theory and practical examples was insufficient.
- ✓ All other comments received were (very) positive.

Aspect of Workshop	Excellent	Good	Average	Acceptable	Poor	Unacceptable
1 The workshop achieved the objectives set	23%	69%		8%		
2 The quality of the workshop material given to me was of a high standard	38%	46%	8%	8%		
3 The content of the workshop was well suited to my level of understanding and experience	30%	54%	8%	8%		
4 The workshop was relevant and informative	15%	46%	15%		8%	
5 The workshop was interactive	46%	54%				
6. The mix between theory and practical examples allowed sufficient opportunity to implement acquired knowledge and skills	17%	58%	17%		8%	
7 Facilitators were well prepared and knowledgeable on the subject matter	77%	23%				
8 The duration of this workshop was neither too long nor too short	8%	69%	23%			
9 The logistical arrangements (venue, refreshments, equipment) were satisfactory	46%	38%	16%			
10 Attending this workshop was time well spent	46%	54%				



Annex 1: PARTICIPANTS' LIST:

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Annex 2

AGENDA

Regional Environmental Network for Accession - Working Group 2 Climate

CO₂ emissions from road transport, fuel quality and fluorinated gases

Place: Istanbul, Grand Öztanık Hotel, Topçu Cad. No: 9-11 Taksim, Istanbul. tel: +90 212 361

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Date/Time: 9.00 – 16.30, **Wednesday 18 May 2011**

9:00 *Welcome coffee and Registration*

9:15 – 9:45 **Welcome and introduction**

Mr. Imre Csikós, RENA Climate Working Group Leader

WG Coordinator of Host country

Introduction of participants

Objectives of the meeting

Approval of the agenda

9:45 – 10.15 **General description of RENA Network and status of project implementation**

Introduction by Ike van der Putte

10:15 – 11:30 **Reducing CO₂ emissions from road transport (overview legislative framework), fuel quality**

By Imre Csikós

- *Regulation (EC) No 443/2009 emission performance standards for new passenger cars*
- *Regulation setting emission standards for vans*
- *Directive 1999/94/EC on consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars*
- *Directive 98/70/EC Fuel Quality Directive*
- *Directive 2009/30/EC on fuel quality (amending a number of elements of Directive 98/70/EC)*

- 11:30– 11:45 *Coffee break*
- 11:45 – 13:00 **Case Study: Implications of a low-carbon future for the automotive industry**
By Zissis Samaras, University of Thessaloniki
- *Progress of EC standards; impacts of EUR 5 and following*
 - *Relation between EC emission standards and car engine quality and cost*
 - *Prospects for low carbon future through technological innovations and fuel shift*
 - *Discussion*
- 13:00 – 14:00 *Lunch*
- 14:00 – 15:00 **Fluorinated Greenhouse Gases**
By Tomas Sander Poulsen Planmiljoe
- *The F-gas Regulation*
 - *The F-gas Regulations's Implementing Acts*
 - *F-gas reporting according to Article 6*
- 15:00 – 15:15 *Tea break*
- 15:15 – 16:00 **Fluorinated Greenhouse Gases : case study for an EU Member State**
By Tomas Sander Poulsen Planmiljoe
- *Danish situation with respect to F-gases*
 - *Impact of the EC F-gas Regulation on national legislation*
 - *Example of the Danish reporting*
- 16:00– 16.30 **Wrap up of the meeting**
- *Conclusions*
 - *Evaluation of meeting*
 - *Next RENA climate events*



Annex 3

Sheets

(under separate cover)

Presentations to be found on www.renanetwork.org

Annex 4

POST-WORKSHOP EVALUATION

FULL TITLE OF THE TRAINING: RENA WG2 CLIMATE CHANGE

Activity 2.1 on CO₂ emissions from road transport, fuel quality and fluorinated gases

LOCATION OF THE TRAINING: Istanbul, Turkey

DATE: 18 May 2011.

1. Statistical Information

1.1	Workshop Session	Regional workshop
1.2	Trainer Name	Imre Csikos/ Zisis Samaras /Tomas Sander Poulsen
1.3	Name and Surname of Participants (evaluators)	As per participants' list.

2. Your Expectations

Please indicate to what extent specific expectations were met, or not met:

My Expectations	My expectations were met		
	Fully	Partially	Not at all
1. Filling gaps in the implementation	2	1	
2. Information about and better understanding of EU Directives and other issues	10	3	
3. Case studies/exchange of experiences	4	2	
4. Getting prepared	3	3	

3. Workshop and Presentation

Please rate the following statements in respect of this training module:

Aspect of Workshop	Excellent	Good	Average	Acceptable	Poor	Unacceptable
1 The workshop achieved the objectives set	3	9		1		
2 The quality of the workshop material given to me was of a high standard	5	6	1	1		
3 The content of the workshop was well suited to my level of understanding and experience	4	7	1	1		
4 The practical work was relevant and informative	2	6	2		1	
5 The workshop was interactive	6	7				
6. The mix between theory and practise allowed sufficient opportunity to implement acquired knowledge and skills	2	7	2		1	

Aspect of Workshop	Excellent	Good	Average	Acceptable	Poor	Unacceptable
7 Trainers were well prepared and knowledgeable on the subject matter	10	3				
8 The duration of this workshop was neither too long nor too short	1	9	3			
9 The logistical arrangements (venue, refreshments, equipment) were satisfactory	6	5	2			
10 Attending this workshop was time well spent	6	7				

4. Comments and suggestions

I have the following comment and/or suggestions in addition to questions already answered:

Workshop Sessions: Excellent, but bit too long (1), Good (2).

Trainers: Very good (1), Good (1), Excellent, particularly Mr Samaras and Mr Csikos (3) Very well prepared (1),

Workshop level and content: Excellent (1), Useful (3), Good (1), Very good (1).

Other:

1) To organize other workshops like the EU ETS.

2) To continue with RENA meetings.

3) To keep being updated on the developments in the F-gases sector, particularly with regard to case studies.

4) Very important for better understanding of problems of GHG gases from transport and F-gases.