

RTD Fact Sheet Template

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Context and Purpose

An important concept issued from Kyoto protocol for pollutant emission reduction is the incentive mechanism based on "green/white certificates" generated to reward ecological conversions and sustainable practices in the industrial field. Starting from Kyoto Protocol Flexible Mechanism, a similar policy could be implemented for mobility topics in order to favour sustainable mobility and to achieve a Mobility credit Market (MobiMart) system to encourage good practices. MobiMart aims to demonstrate the results of the application of a model for measuring mobility eco savings (mobility credits) coming from different instruments, both at citizen and community level and for rewarding virtuous behaviours.

MobiMart RTD aims to deeply study and design a conversion methodology to implement the credit system based on the ***Guidelines for the definition and implementation of local authorities' GHG emission reduction*** strategies drafted by Cartesio network. The Cartesio network is settled among public bodies and committed to survey and analyze the possible contribution of regional authorities and local bodies to accomplish Kyoto target and to identify common methods to report and quantify the results.

Such mobility credits will be certified by external auditors and ready to be traded through existing mechanisms (i.e. VER -Voluntary Emission Reduction- credits).

In fact, the measure aims to lead an important RTD activity and to implement a real test on mobility credit mechanism.

Through the integrated analysis of existing data it will be possible to better understand citizens needs and to encourage the "virtuous" behaviour by a pricing system which converts the environmental/energy benefits in mobility bonus (hours of free parking, free bus tickets, etc). A rewarding system is established, identifying right conversion factors in order to reward usual users and to attract new ones thus multiplying the positive effects and changing the way of thinking on mobility issues.

Description of RTD Activity

Incentive mechanisms based on "green certificates" generated to reward ecological conversions and sustainable practices in the industrial field are at the basis of MobiMart RTD activity.

MobiMart leads to the study and implementation of a system of "mobility credits", i.e. a system of rewarding positive behaviours related to the transport and mobility area (which are beneficial in terms of reducing CO2 emissions). This reward system will be implemented through:

- The identification of specific modes of public transport that can be measured and quantified;
- An appropriate methodology for calculating the tons of CO2 saved;
- A conversion of these reductions in so-called "mobility credit" which can be attributed to public administrations or private companies.

The ultimate aim of the measure is to evaluate whether the creation of this system can encourage or not, private individuals and companies to adopt more sustainable practices from an environmental perspective. The credits so identified may be recorded, validated and eventually

exchanged through existing platforms for credits exchange or future ones in accordance with the guidelines of the Cartesio Network (which includes both the Region and the Municipality of Bologna). The Cartesio Network already involves 6 Italian Regions and more than 150 members of which 28% are public bodies coming from 16 different Italian regions.

The choice to apply for Cartesio “label” was evaluated as the best approach in Italy due to its “public character”. Similar approaches to exchange platforms are being established in several other countries and the experience are expected to be replicated all over Europe, if positive.

The measure includes several projects of greenhouse gas emissions reduction to be developed following the requirements of the methodology useful for the validation of the CO2 reductions.

The RTD study conducted by SRM on methods of detection and conversion will deal with four different modes of transport, which have been identified to carry out measurements and tests: car-pooling, car sharing, flexible transport services and cycling.

The credit “certification” procedure will be done in close cooperation with Cesisp, an Interuniversity Consortium for certification, recognised by Cartesio as certification body.

Outputs and Results

The research phase is a preliminary stage to the test phase, needed to identify the methodology for collecting and processing data.

For this reason, the main output of MobiMart RTD related activity is the Project Description Document (PDD), a methodological implementation plan, drafted by AIRIS as expert subcontractor on environmental impact issues.

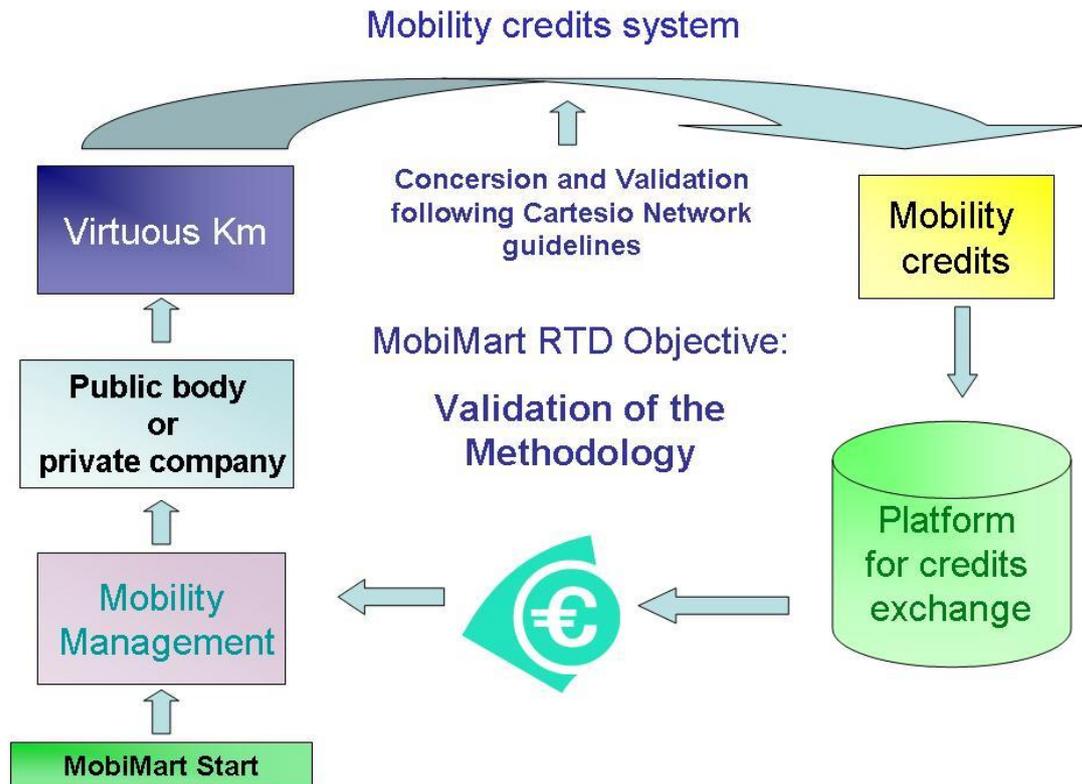
The PDD which is titled “Experimental application of the CARTESIO guidelines on a project concerning greenhouse gas emissions reduction” is divided into four main parts related to the four pilot actions to be implemented:

1. Car-pooling among Emilia-Romagna Region employees;
2. Car-sharing managed by ATC in Bologna area;
3. Flexible Transport Service: a pilot test on *colBUS* – La Navetta del Borgo;
4. Citizens by bike.

Each part of the PDD includes a general description of the pilot action, information on methodological data on baseline and business as usual definition, project and crediting period duration, environmental impacts and stakeholders involvement.

In the annex section an ex ante calculation on hypothetical case studies is drafted for each pilot tests. Hypothesis are then compared with existing literature where available.

The methodological approach to be followed for each pilot test is different and can be exemplified by using charts like the following one that describes the activity flows in the car-pooling pilot action:



Resulting Decision-making

The first result of the RTD led to the discovery that a strategy for the exchange of mobility credits was somehow already been designed by the network CARTESIO in the interval between the application of the CIVITAS MIMOSA project and the implementation of the measure. Following this reconnaissance was necessary to slightly reformulate the objective of the research in order to approach the CARTESIO methodological guidelines rather than create new ones. The Cartesio guidelines could be considered as a driver for the progress of the measure: as it gave the general methodology to follow in order to reach the certification.

Moreover, the results of the research has yielded some important tips, from the methodological point of view, for the proper conduct of the pilot and the collection of data relating to good behavior and credit certification.

Lessons Learnt

The innovativeness of the proposed methodology immediately caused considerable difficulties in carrying out research activities. Credit in the mobility sector is an area that is in turmoil and requires constant updating to avoid duplication of research or tools already developed by others.

From technical and organization point of view, the fact that the measure is not focused on a single test, but on four pilot test led to two different and opposite effects: the first is that at the end of the tests, if the result are positive, the methodology has undergone a thorough validation process and therefore it will be more easily transferable, either horizontally, to other situations of modal change, both vertically, i.e. to other local authorities, institutions, companies and stakeholders involved;

The second consequence is that the methodological difficulties in the definition of each test has led to a delay in the start up of pilot phases.

The lesson therefore is that, given the demonstrative character of the measure, in such cases, the commitment in the experimental phase should be preliminary well evaluated, considering own resources at disposal and the difficulties of an empirical action.

In the field of inter-relationships, the measure has led to fruitful (and in some cases fruitless) co-operation with the major stakeholders at the regional level. Even in cases where difficulties have emerged, often associated with the experimental character of the activity, it has nevertheless

created best practices in collaborative relationships.

All the involved stakeholders willingly participated to the MobiMart related activities, having considered interesting and challenging the initiative, and although not a high savings in terms of direct CO2 will be produced, it is believed that it will increase the awareness of users.

Cost-effectiveness

The results of this research are very much in line with expectations. The research has highlighted the innovative nature of the methodology outlined in the DOW of the measure.

The preliminary study conducted to define the guidelines for the certification of mobility credits, on the contrary, made known the existence of a framework strategy, under construction at that time, for the reduction of GHG emissions and the economic valorization and exchange of non-industrial credits of various types, including those related to mobility.

The strategy drafted by CARTESIO, a network mainly formed by public authorities and dedicated to them, provides a set of guidelines that reflects the expectations of MobiMart.

This information allowed us to slightly modify the foreseen activities in favor of a greater consistency with existing provisions in the CARTESIO guidelines and of a subsequent accession to the protocol of certification.

It should be emphasized that, to date, the initiatives of certification issuing were focused more on the conversion of industrial establishments or similar. Openness to other certification has been viewed with interest by the stakeholders, which are oriented to reduce the territorial and sectoral production credits, to ensure that actions can have tangible results at local level.

Dissemination and Exploitation

The main purpose of the measure MobiMart is this: to demonstrate the feasibility of a methodology that calls for the encouragement of good behavior of groups of citizens or employees against the authorship of the relative mobility credits certificated and tradable on specific platforms. The profits of the credits exchange could be used to offset the incentives used by the promoting actor and to make available new.

The innovativeness of the methodology has been appreciated internationally: an abstract titled "MobiMart - a pilot test on Sustainable Mobility credit system in Bologna" was submitted and accepted to Mobil.TUM 2011 International Scientific Conference on Mobility and Transport. The complete paper will be presented in Munich on 7th April 2011 within section 3 - Transport planning and engineering for advancing Sustainable Mobility.