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# INTERLINKAGE AND SYNERGIES BETWEEN SELECTED OTHER POLICY AREAS AND ENERGY EFFICIENCY

## D.1.3

PART OF WORK PACKAGE 1: MAPPING OF ENERGY EFFICIENCY POLICY INSTRUMENTS AND  
AVAILABLE TECHNOLOGIES IN BUILDINGS AND TRANSPORT

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# CHAPTER 1: ACHIEVING ENERGY EFFICIENCY THROUGH INTEGRATION IN OTHER POLICY AREAS

## 1.1 POLICY INSTRUMENTS WITH A DIRECT LINK TO ENERGY

### 1.1.1 THE EMPLOYMENT-ENVIRONMENT ALLIANCE IN WALLONIA

#### Introduction

The Marshall Plan 2.Green in the Walloon Region was a 2.75 billion EUR initiative for the period 2009 to 2014. It aimed to ensure the region's sustainable development through promoting R&D, investment and training. The plan focused on six (6) Priority Areas: 1) enhancing Wallonia's human capital; 2) further developing the region's competitiveness clusters; 3) fostering scientific research; 4) creating new investment and job-creation incentives; 5) supporting the 'green' sector through the Employment-Environment Alliance, and 6) promoting the care industry.

The 5th Priority Area (Area V) of the Marshall Plan 2.Green was the so-called "*Employment-Environment Alliance*" (EEA). The targets of the EEA were to "*Support a new sustainable and united economic model through employment-environment alliances which constitute an opportunity in terms of employment, economic development and a response to environmental challenges*" and to "*Position Wallonia as a pioneer for sustainable development in Europe and worldwide, by providing it with an expertise that can be recognised and exploited abroad, while creating employment that cannot be relocated.*" [Walloon Region, 2011]

The EEA's principal objective was to "*focus on the potential of energy and environmental improvements in buildings to generate jobs, create economic opportunities and increase training especially in the field of sustainable construction jobs.*" [Walloon Region, 2011]

The approach was to gather the different efforts done in the sustainable construction field, in terms of policies for vocational training and integration, and for supporting SMEs. The main concrete objective was to create high-quality local jobs. This also meant answering two key bottlenecks:

- the saturation of the building companies that cannot answer to the increase in the demand for renovation works;
- the needs of continuing training to use up-to-date solutions (for the qualitative improvement of the works).

#### Relation to Energy Efficiency

The "Employment-Environment Alliance" (EEA) comprised five policies:

1. Launching the "First Alliance" through a multi-year energy saving and sustainable construction plan and a multisectoral contract;
2. Creating optimal conditions for development with a quality offer. This entailed developing innovation by promoting research projects and financing technology innovation partnerships in the sustainable construction sector; and implementing training initiatives for EEA jobs;

3. Improving the attractiveness of sustainable investments (“eco-investments”) in the housing industry. This included measures aimed at households (energy and housing subsidies and eco-loans, third party financing, communication strategies) and at the public sector (renovation of the public housing stock based on a land register of all housing, collective boiler rooms and large solar thermal systems, the “Rational use of Building Energy” (UREBA) plan for buildings within the Administration, pilot projects in eco-construction and eco-renovation, etc.);
4. Considering the opportunity to other employment-environment alliances;
5. Improving sectoral policies and initiatives in terms of research, economy, employment and training in other green job.

The choice to involve the building industry for the “First Alliance” was dictated on the one hand by the relative obsolescence of the Walloon housing stock, and on the other hand by the fact that the building industry constitutes a important sector of the Walloon economy.

The energy savings multi-annual plan (first dimension of the EEA) comprised some 50 measures defined around three specific objectives:

- Stimulation of *private* demand for sustainable renovation or construction;
- Stimulation of *public* demand for sustainable renovation or construction;
- Consolidation of the capacities on the supply side, mainly the construction sector.

#### **Interaction between objectives**

Through jobs creation, the EEA benefited 420,000 employees and 15,600 employers. One million EUR invested in the sector allowed the creation of 10 jobs in one year. On average, 4,700 jobs per year are linked to the EEA over the 2010-2014 period.

The Walloon energy administration estimates that in the 2009-2015 period 1.5 million tons of CO<sub>2</sub> were saved, of which 590,000 tons in the year 2014.

#### **Interaction between target groups**

The Agreement on the Sustainable Construction Axis gathered 50 private and public signatories. The process involved 130 organizations (52% public and 48% private). The actors in question elaborated 44 concrete actions aimed at education, training, technical references, research, support to companies, financing, labels ...

The EEA multi-annual plan engaged 44 partners who signed the multi-sectorial contracts.

#### **Interaction between Rules-Influencing Mechanisms**

In order to reinforce the attractiveness of sustainable investments in the building sector, the EEA policies and measures focused on the demand side, the supply side and on the intersection of demand and supply.

On the demand side:

- Implementation of financial and non financial incentives, with particular attention given to low income households;
- Implementation of a public investment policy;
- Setting progressive environmental performance requirements.

On the supply side:

- Aid to companies;
- Promotion of Research and Development (R&D) in companies;
- Implementation of financial incentives and tools for companies;
- Setting progressive energy performance requirements;

At the intersection of supply and demand:

- Various audiences targeted by “green trainings” (jobseekers, students or youngsters, workers, trainers);
- Training devices adapted to those different audiences. .

The most important measures in budgetary terms were

- actions aimed at creating a high-quality offer through innovation, training actions on alliance skills, and the creation of Employment Creation Support (APE) / Vocational Transition Programmes (PTP);
- actions relating to sustainable investment in Walloon housing through specific measures aimed at private individuals and at the public sector;
- actions relating to sector policies in areas of green jobs research, economics, training and creation;
- the other measures in the ‘green’ area are marginal (in monetary terms) compared to those mentioned above, namely: a multi-annual plan setting quantitative objectives and environmental standards and a multi-sectoral contract; and the action “other alliances”).

The following measures of the EEA were assessed:

- Subsidies and loans intended for private housing; ;
- Measures intended to restart the renovation of the public building stock;
- “Green training”.

The results were as follows [IWEPS, 2014]:

- Household demand for sustainable renovation works is highly sensitive to changes of the technical and financial conditions relating to the incentive systems. Overly abrupt or too frequent changes of the legislation are likely to induce erratic variations of the demand. This is harmful for the expansion of the building sector, who rather needs stability to thrive;
- The proportion of the subsidized works carried out by lower-income households remains weak in the light of their weight within the Walloon population. A difference in access to natural materials or to materials with higher insulating properties exists depending on the income category to which the applicant belongs, with an appreciably higher probability of those materials being used for the higher income households;
- The windfall effects of the “Ecopack” measure seems closely related to the income category to which the household belongs. Whereas none of the households of the lowest income category said that financed works would have been carried out in the absence of the measure, this proportion reaches practically 20% for the higher-income households;
- The majority of the companies involved in the sectors a by the EEA measures said that they needed to be trained on the new energy-saving techniques and materials. However, among those, the majority was unaware of the training-cheque system proposed by EEA. The need

to make this measure known is all the more relevant as the companies that have used it seem to be overall satisfied by the experience.

### **Interaction between the Implementation Network / governance structures**

The EEA coordination was managed by the Ministry of Sustainable Development, Public Service, Energy, Housing and Research. A coordination cell mandated with the implementation of the multi-annual plan and multi-sectorial contracts was part of the administration services. Its mission was to elaborate evaluation and impact indicators of the EEA. The cell was under direct authority of the Minister mandated with EEA coordination, who organized the implementation and works.

The ministers had a decisional power on all measures of the multi-annual plan. The majority of the executive power (27 measures) was delegated to Walloon public actors, and the rest was scattered between extra-regional public actors, private sector companies federations, other private sector actors, associative sector actors, clusters, and training centres. Administrative or budgetary management was entirely in the hands of Walloon public actors.

The area devoted entirely to the employment-environment alliance (Area V) represented an investment of 879.6 million EUR over four years (almost one-third of the total Marshal Plan 2.Green investment, and nearly 70% of the total green initiatives). This area was made up of 279 million EUR of ordinary financing and 600 million EUR of alternative financing. Alternative financing comprises 'loans taken out by third party institutions and the interest and write down of which are partly or wholly covered by the Walloon Region, for the whole duration of the loan.' One of these third-party institutions was the Société Wallonne pour la Gestion d'un Financement Alternatif (SOWAFINAL).

The EEA project realized returns that (in the mid and long term) benefit federal, regional and local public finances, through value added tax (VAT) revenues, corporate tax, individual income tax, local taxes, Social Security National Office contributions, reduction of unemployment benefits, etc. The return effects are estimated at 40% of the direct public investment.

## **1.1.2 THE VIAPASS SYSTEM**

### **Introduction**

In Belgium, 4.7 billion truck-kilometres are annually driven by Belgians, and 3.5 billion by foreigners.

A tax per kilometre is to be implemented for all trucks weighing over 3.5 tonnes throughout Belgium from 1 April 2016.

In early 2011, the three Belgian regions reached an agreement on the introduction of an intelligent road pricing for trucks over 3.5 tons and a vignette for cars. Originally the idea was to introduce both systems in 2013, but this was found not to be feasible. It was decided in 2013 that the proposed vignette for all vehicles under 3.5 tonnes will not proceed, as the three Belgian regional governments look at alternative solutions (e.g. a pilot trial of distance charging for cars in Brussels, see supra).

The Agreement establishes the inter-regional institution Viapass, responsible for all government tasks related to road charging. Some examples:

- Overseeing the work of the Single Service Provider.
- Monitoring and controlling the financial flows of the toll system.
- Adapting the toll network where needed (cf. to avoid unwanted traffic diversions).
- Operational coordination of enforcement of the system, including detection of fraudulent drivers via technological means.

The system will be based on satellite technology, using on board units (OBUs), which drivers will collect at a distribution point. Each truck will get an On-Board Unit (OBU), an electronic device using GPS technology and wireless networks. The OBU will register the distance travelled by the vehicle and on which roads. Mileage data will be transmitted to a data centre and an invoice generated, which the driver will pay on returning the OBU.

The kilometre charge for trucks will replace the existing Eurovignette based on satellite technology.

The tariff levels have not yet been decided. Toll rates by European law must not exceed the proportion of infrastructure costs fairly attributable to the vehicles being charged, and a calculated charge for *environmental externalities* (which has to be justified). The rate of road pricing will vary depending on the maximum permissible weight of the trucks, their Euro emission class and type of the road being used.

The charge will be applied to a road network including the current Eurovignette network, consisting of Belgium's highways, the orbital roads around the main cities, and a number of other important routes. Belgium will withdraw from the trans-national "Eurovignette" charge, which is a prepaid pass for using the major highway networks in Belgium, Luxembourg, the Netherlands, Denmark and Sweden. So it is a replacement of an existing charge, although the Eurovignette only applies to trucks 12 tonnes and over, whereas this charge covers them down to 3.5 tonnes. The Regions can include more roads in their networks to avoid traffic diversions to roads without a toll [Scott Wilson, [roadpricing.blogspot.be](http://roadpricing.blogspot.be), 17.04.2014].

### **Relation to Energy Efficiency**

The primary aim of the new road charging system Viapass is to make those that use the roads pay for them. This means that once the system is introduced foreign truckers that use the Belgian roads will also pay towards their upkeep. This is likely to increase revenue from foreign trucks [Scott Wilson, [roadpricing.blogspot.be](http://roadpricing.blogspot.be), 17.04.2014].

The aim of road pricing in general however is to confront road users with the marginal external costs they impose on society. The rate of road pricing in the Viapass system will thus vary depending on, amongst others, the Euro emission class.

According to Viapass, for the three Regions of Belgium, the Viapass project will mark a permanent transition towards a fairer and more *sustainable* way of road pricing [[viapass.be](http://viapass.be)].

### **Interaction between objectives**

The Flemish mobility minister promised accompanying measures for the sectors affected by the toll. "Among other things, we're thinking of extra investments in the road network and incentives for safer trucks," he said [Flanderstoday.eu, 16/02.2015].

### **Interaction between target groups**

The target groups are drivers of (heavy duty) trucks versus drivers of cars and vans. There is at present no charge for light vehicles in Belgium.

The Brussels-Capital Region estimates to decrease truck traffic on its roads considerably, but this is contested by MOBI's professor Cathy Macharis ([interview with Cathy Macharis on brusselsnieuws.be](http://interviewwithcathy.com), 13.02.2015). As the Viapass measure only affects trucks, it is extremely likely that the trend will move towards a higher usage of small vans, which are more polluting when taking all proportions into account. In addition, the kilometre tax does not consider peak and off-peak hours, a discouraging sign towards the pilot projects (see supra) in Flanders and Brussels on night-time deliveries. Finally, questions are raised concerning the revenues of the measure, for which no specific objective has been communicated.



The federation FEBIAC insists that *cars* should also be subject to a kilometre charge, with a variable rate based on the duration, location and environmental impact of a vehicle's movement ([fleeteurope.com](http://fleeteurope.com), 16.07.2013). The federation believes that a smart distance-based charge offers an ideal way of improving mobility, but at the same time it is convinced that a charge of this kind will only be accepted by the public if certain criteria are met. These criteria include the reform and reorganisation of taxation in the area of mobility.

A consortium of companies including Touring, Mobistar, Magic View, NSL, NXP, IBM and the Belgian consultancy Transport and Mobility Leuven (TML) conducted a study in 2011-2012 in the City of Leuven on how Flemish driving behaviour would change if the driver is compelled to pay for every kilometre on the road [TML, [press release](#), 15.02.2012, [tmlleuven.be](http://tmlleuven.be)]. The system was tested out amongst 30 drivers in Leuven, who were issued with a fictional invoice and had to try and drive as cheaply as possible. The results of the 11,000 test drives, totalling 100,000 kilometres, were very clear. *“During the test drives over half of the subjects changed their driving behaviour”*, said Sven Maerivoet of TML [[expatica.com](http://expatica.com), 16.02.2012]. Road pricing would lead to a five percent decrease in rush hour rat-run traffic and a 30 percent cut in personal excursions during the busiest times of the day.

In 2013, Brussels and Antwerp were named the worst places for traffic congestion, The Pilot project on kilometre charge for cars in the Brussels Regional Express Network (BREN) zone is a scientific study to measure the influence of road charging [Mayeres, 2015]. It was commissioned by Belgium's three regions: the Flemish Region, the Walloon Region and the Brussels Capital Region. The multidisciplinary research team included PwC as coordinator, VITO for the scientific approach and analysis of the results, Touring for its expertise on Belgian mobility (Touring was also the first contact point for the participants, via its helpdesk facilities); Magicview for the technical aspects (on-board units; website for the participants; back office); and GfK Belgium for the recruitment of a representative sample of participants. The scheme involved installing special satellite navigation equipment in the cars to record every journey and calculate how much it would cost. They gave the drivers a virtual wallet and charged 9 cents/km in the city, 5 cents/km on motorways and 6.5 cents/km elsewhere. The first report from the pilot scheme, which measured 1,000 motorists, revealed that they would cut back on car use and look for alternative modes of transport including bike and public transport. Car use in and around Brussels fell by an average of 5.5% during the pilot scheme. There was an 8% reduction of car-kilometres in urban areas with higher km-charge, but a 4% increase outside the BREN zone. Some drivers also changed the time of their journey and their destination. In the peak period car-kilometres decreased by 3.6% and the number of trips by 2%. The most frequently chosen alternatives, as stated by the participants, were walking/cycling; combining trips, or changing shopping behaviour (cheaper periods of day or closer to home). The behavioural effects may be larger with a definitive roll-out on a larger scale, because in the project only short run effects were measured; it was a temporary project so the urge to find new solutions was smaller, the level of the kilometre-charges was rather low; as a more attractive alternative became available, the price elasticity would increase. [Mayeres, 2015]

### **Interaction between Rules-Influencing Mechanisms**

Road pricing is an essential part of a broader package, namely the supply of public transport and infrastructure for other modes; the correct pricing for public transport and for parking (“parking charges”); fuel and car taxation; and company car taxation and labour taxes.

According to VITO [Mayeres, 2015], there are a number of problems with the current policy instruments to tackle congestion and to help realize a modal shift.

- Fuel taxes make no distinction between the peak and off-peak period. There is no distinction either between less and more polluting vehicles. They may also lead to “fuel tourism”. Fuel



tax is completely absent from the debate in Belgium. In part, because fuel tax is mandatory under EU law, but also because it is a Federal matter. However, the platform nationwide road charging would create to partially replace fuel tax in Belgium does beg the question as to whether there would be efficiencies in doing so.

- Parking charges can at best be used as a second-best policy instrument to tackle congestion.
- Public transport subsidies are a good policy instrument, on the condition that 1) the price of private transport is too low and cannot be changed; 2) that the subsidies encourage a large number of people to switch from private transport to public transport on links in periods with a lot of congestion; the own price elasticity of public transport is limited; there is a differentiation of subsidies according to trip purpose. Furthermore, subsidies need to be financed.

*"Efforts by government and businesses have had limited effect"*, professor Ann Verhetsel of the University of Antwerp says in reference to carpooling and telecommuting (working from home), which were presented as solutions to the traffic problem since the beginning of 2000 [[The Bulletin, 04.08.2014](#)]. Professor Verhetsel therefore urges support for road pricing: *"The only solution is to make driving more expensive, much more expensive. Only then will we make the switch to public transport or the bicycle. Other countries have shown that a financial measure, combined with a strong expansion of public transport, does have an effect."* [[The Bulletin, 04.08.2014](#)].

Transport & Environment also says that a kilometre charge is a more effective way to cut congestion and emissions than a congestion charge which some users simply get used to. *"We prefer the kilometre charges because if you pay a one-off fee you're incentivized to maximize your driving within that period,"* said Transport & Environment's Renshaw [[Reuters, Philip Blankinsop, 27.04.2014](#)].

Bruno De Lille, Green Party member and mobility secretary for the Brussels region, points out that Belgium has a tax system that encourages company cars and compensates the cost of driving to work, with the former taxed at a lower rate than salaries and the latter able partially to be offset against tax. So far Brussels has tried to fight traffic creep by making public transport more attractive with special bus or tram lanes. That has worked by convincing many commuters to switch to public transport or bicycles, but has also created its own problems. *"What we've seen in the last 10 years is that we've got 7 percent fewer cars on the roads, but the jams have got longer. That's because there's less room for cars"*, De Lille said [[Reuters, Philip Blankinsop, 27.04.2014](#)].

FEBIAC thinks that road pricing measures should ultimately replace existing taxes on mobility (i.e. vehicle tax, annual road taxes, excise duties). This simplification could be fiscally neutral: the average road user wouldn't need to pay more – if they adapt their driving behaviour. On a macro-economic level, road pricing could be made to be financially neutral at the moment of transition from the old to the new system. [[fleeteurope.com, 16.07.2013](#)]

### **Interaction between the Implementation Network / governance structures**

The three Regions of Belgium signed a Cooperation Agreement for the charging system for Heavy Goods Vehicles on December 2, 2013. The introduction of the kilometre charge for HCVs is based on this Agreement.

Governance of the Viapass scheme is such that governance will be by all three Belgian regions; Flanders, Wallonia and Brussels, and not by the Federal Government. All regions will be separately liable for the payment of availability fees to the supplier, with that service provider responsible for the end-to-end charging service and fraud control.

None of this is being done at the Federal level, but instead by all three constituent regional governments. It creates obvious risks for any service provider, having a contract with three

governments in parallel. *“However, if it works it will show a somewhat different model for governance of these sorts of systems.”* [Scott Wilson, [roadpricing.blogspot.be](http://roadpricing.blogspot.be), 17.04.2014]

The application by the City of Leuven for subsidies for the pilot project on road pricing in the City of Leuven was refused by the Flemish Government. The City of Leuven went ahead with its own resources. The reasons for the Flemish Government’s refusal are unknown.

The congestion in the Brussels-Capital Region has had the effect of uniting Belgium's environmentalist Green Party, centre-right rivals N-VA and business and motoring groups in a call for a solution whose time may finally have come - charging drivers for distance travelled. The idea of a road pricing is backed by the Flemish nationalist party N-VA, currently the largest party in parliament, albeit balanced against reductions of annual road tax, as well as business bodies, the Belgian auto federation FEBIAC and Touring. [Reuters, Philip Blenkinsop, 27.04.2014]

The Belgian auto federation FEBIAC asked the consultancy PwC to examine the feasibility of the proposals and calculate their impact on the existing mobility budget. The results were published in a report, *“Smart taxation for improved mobility (“Slimme fiscaliteit voor betere mobiliteit”)*. [PwC, 2013] The report concludes that there is in fact no reason why improved mobility would imply higher costs for users and the state.

*“In Belgium, the tax rules in the area of mobility are extremely complex”,* states Thierry van Kan, Chairman of the Belgian auto federation FEBIAC, *“and we’re proposing that they be reformed and reorganised, by making changes to the way in which the budget is funded and spent. This will make it possible to influence the behaviour of users in a way that has a positive impact on mobility.”* [PwC, press release, Brussels 22.10.2013] The proposal comprises three key tax shifts, which affect income and spending [PwC, 2013]:

- ⋮ Currently, more than 50% of government income in the area of mobility is derived from taxes based on ownership. Moving towards taxing usage (the distance travelled) will encourage the use of appropriate means of transport at appropriate times, making it possible to reduce the cost to society in terms of the environment and congestion;
- ⋮ In order to gain support for any moves to base the taxation of mobility increasingly on usage, it is vital road users are given guarantees that the associated income for the government will at the very least be used to improve and maintain the road network;
- ⋮ In addition to placing a greater focus on the quality of the road infrastructure, it is also vital to develop co-modal transport solutions. These are necessary in order to compensate and offer alternatives to those who are unable or unwilling to pay to use the road infrastructure.

According to the Belgian auto federation FEBIAC, the proceeds of road pricing should first and foremost go towards improving and expanding the existing road infrastructure. But a Belgium-wide system of road pricing can only come into effect if and when there is sufficient agreement and cooperation between the three regions (Flanders, Brussels and Wallonia) [PwC, press release, Brussels 22.10.2013].

It should be noted that fuel tax is absent from the debate, partly because it is (still) a federal matter [Scott Wilson, [roadpricing.blogspot.be](http://roadpricing.blogspot.be), 17.04.2014].

## 1.2 POLICY INSTRUMENTS WITH AN INDIRECT LINK TO ENERGY

### 1.2.1 SOCIAL HOUSING POLICY IN FLANDERS

## Introduction

In Flanders (and Belgium), strategies of stimulating home ownership through direct and indirect measures have for more than a century played a far more important role than social protection in the field of housing. Housing is thus less seen as a social right but more as an individual responsibility, albeit with strong financial support from the government [Cools & Oosterlynck, 2015].

In the Flemish Region applicants for social dwellings have to register with local providers on the basis of income, and are consequently selected on the basis of chronological registration and availability.

The Flemish Government promises to invest more money in social rental dwellings, based on earlier conclusions that the social rental sector is too small. Social housing in Flanders covers 6% of the housing stock. The regional “Support Organisation for Social Housing” (VMSW) estimated in 2011 that almost half of all Flemish tenants were eligible to rent a social dwelling.

The Flemish Government eased the requirements for receiving the free Flemish housing expenses insurance, including dropping most of the income requirements.

## Relation to Energy Efficiency

Income poverty and energy poverty are strongly related, but they are not synonyms [Cools & Oosterlynck, 2015].

The most prominent causes of energy poverty are a low income in relation to the expenditures required to satisfy elementary needs; low energy efficiency of the dwelling; a situation of health and employment where one is “forced” to stay at home; and rising energy prices. The possible consequences are hardship; debt; possible long-term negative effects on health; a bad condition of the house, and social exclusion [Huybrechts et al, 2011].

There are no statistics available in Flanders that allow to link data on low-income households to data on households’ energy consumption and housing quality.

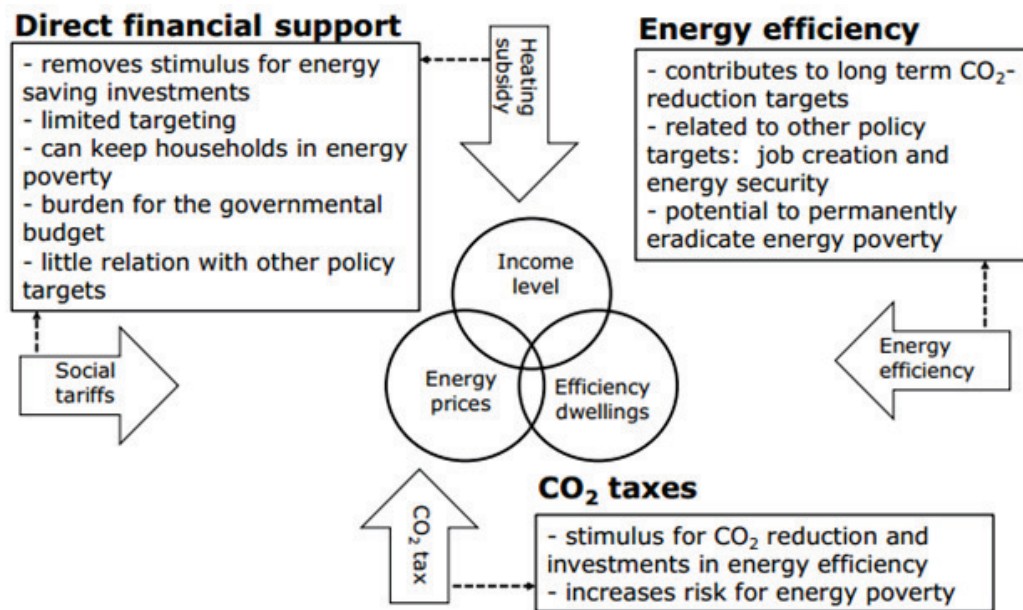
## Interaction between objectives

Housing policies that target structural problems of the houses have potentially negative social effects. The King Baudouin Foundation observed that strategies that focus on implementing relatively high quality criteria, using the Energy Performance Certificate (“*Energie Prestatie Certificaat – EPC*”), risk broadening the gap between vulnerable tenants and the rest of society instead of closing it. [Koning Boudewijnstichting, 2013].

The identification of energy poverty by local welfare centres or social organisations often coincides with the emergence of problems of debt to private energy providers. The Federal approach to fight energy poverty can best be summarized as ‘protecting the consumer’ (Meyer & Huybrechts, 2012). When an energy provider drops a client, the client will automatically be provided energy at a ‘social rate’ for gas and electricity by the grid manager. But the prices of this social rate are often higher than the lowest prices on the free market. This tends to aggravate the debt problem. The grid manager cannot simply drop clients. When a client cannot pay the grid manager, he has to appear before the Local Advisory Commission (LAC), who decide on payment, the possible installation of a budget meter, or in extreme cases being cut off. The local welfare centres (OCMW) coordinate these measures. Such measures are at best “curative”.

Energy efficiency (EE) policies, climate policies and (social) housing policies are linked, but actions in one domain are not necessarily positive for the other domains. There is a continual search for trade-offs and synergy between energy, climate and social policies. [Verbeeck, 2014]

Figure 1 Synergy between energy, climate and social policies



Source: [Verbeek, 2014]

### Interaction between target groups

The target groups are all households affected by energy policy and the subset of households targeted by social housing policies.

In the Flemish Region, households in energy poverty are often private renters living in older dwellings; with a below average income; with a lower than average education level; and very often single or single parent families. In many cases, the energy quality of their dwellings is also below the Flemish average.

There is always the danger that energy and social policies in the Flemish Region may widen the gap between poor families and other households. The threats are [Verbeek, 2014]:

- ⋮ Limited energy savings measures for low-income families could lead to a lock-in effect. The low-income households (including the energy poor) would increase their thermal comfort rather than lowering their energy consumption (“rebound effect”), while the underutilisation of the energy savings potential would make future investments much harder and less economically viable;
- ⋮ The existing policies could lead to increasing inequality between those households living in highly energy efficient dwellings and those living in less energy efficient dwellings;
- ⋮ The social energy-related policy measures are based on net energy consumption. That way, the contribution of lower-income households to the financing of those measures is relatively higher than for higher income households.

### Interaction between Rules-Influencing Mechanisms

The “Fund for the Reduction of Global Energy cost” (FRGE) provides soft loans to support households, and low-income households in particular, in improving the quality of their homes and to lower their energy bills. FRGE was originally a Federal enterprise, but devolved to the Regions on 1 January 2015.

In the Flemish Region, the grid managers are obligated to provide a number of public services within the Rational Use of Energy (RUE) framework (“Rationeel Energiegebruik” - REG). This includes a variety of services for ‘protected customers’ or vulnerable households such as a range of financial premiums for energy efficiency improvements.

In several Flemish municipalities, social enterprises called “Energy Savers” (“*energiesnoei*ers”) install small energy saving equipment compact fluorescent lamps, radiator foil, water saving shower heads and so on) in private homes, and train and employ disadvantaged people to do this.

Social workers of “Samenlevingsopbouw” who inform people about energy policy measures, experience that those policy instruments are often not accessible to lower income households [Cools & Oosterlynck, 2015].

In 2015, The Flemish Government promised to work on:

- A thorough evaluation and simplification of the social rent rules. In future, rent price calculations for social housing should also take into account renovation and energy performance of the dwelling and the income of the occupant.
- Improving participation of the target group “energy poor” in (social) housing policy-making;

### **Interaction between the Implementation Network / governance structures**

Since 1980, social housing in Belgium is a regional competence. Differences exist between the Regions, not only in housing policies, but also in the average building year of residences, the overall quality of the housing stock and the ways in which people heat their house [Meyer & Huybrechts, 2012].

In Flanders, a dwelling is considered a “social rental dwelling” if an accredited social housing landlord lets the dwelling. Accreditation is the responsibility of the “Regional Support Organisation for Social Housing (“*Vlaamse Maatschappij voor Sociaal Wonen*” - VMSW). Accredited landlords include the “Social Housing Company” (“*Sociale huisvestingsmaatschappij*” - SHM), but also municipalities and the “Public Centres for Social Welfare” (“Openbaar Centrum voor Maatschappelijk Welzijn” - OCMW).

In 1997, the Flemish Housing Code broadened the definition of social landlord, to include dwellings that are let by Social Rental Agencies (“*Sociale Verhuurkantoren*” - SVK) . These agencies offer social rental houses or apartments to vulnerable households as intermediary between private owner-landlords and low-income households.

The Housing Code also charged local authorities with the task of organising broad consultations with stakeholders to coordinate their activities in the fields of housing and welfare. However, local authorities have little responsibilities concerning social housing, unless they are the owners themselves.

The Flemish financing system for social rental and owner-occupier housing entered into force on 1 January 2013 (Decree on Financing of Social Housing).

Via the Decree the funds of the Flemish Government are paid to the regional support organization VMSW (“*Vlaamse Maatschappij voor Sociaal Wonen*”) which allocates the subsidies in three ways to investors in social housing:

- help in the payment of the debt;
- project subsidies;
- help to the pre-financing of those taking the initiative for social housing projects.

It is only since May 2014 that the rent legislation and housing subsidies were also devolved to the regional level.



## 1.2.2 FISCAL TREATMENT OF COMPANY CARS

### Introduction

In Belgium company cars are fiscally deductible. An individual who drives around in a company car is almost always taxed as a private individual on a benefit of 5,000 km multiplied by a certain CC factor. In most cases, this will come down to an amount of EUR 1,000 on which the employee is taxed as a private individual. This is regardless of the type of car or mileage [De Hoon, s.d.<sup>1</sup>]. That helps explain why 68% of the Belgian employees use a company car for commuting. Why would they bother to look for more environmentally-friendly alternatives (modal shift)?

The heart of the matter is that in Belgium it is cheaper for companies to give their employees a car instead of higher wages, because the employees have to pay fewer taxes on the (company) car. In other words, company cars are a relatively easy and cheap way to reward employees for their performance, in the absence of a reduction of taxes on labour [Schoefs, 2015<sup>2</sup>].

An employer may give an employee a company car to raise worker productivity (which in reality only true for a limited number of company cars); because of image building; or as a response to the implied subsidies offered (to both workers and firms) by the government. It is not so clear however why a government would want to subsidize cars ! [De Borger, 2012]

A increasing number of people in Belgium are questioning the use of company cars, out of mobility and environmental concerns. Belgium should move progressively towards the elimination of the special fiscal treatment of company cars.

The current policy reforms include:

- the tax advantage for an employee is no longer based on commuting distance;
- the tax advantage for an employee is based on CO<sub>2</sub>, value and age of the car;
- extra tax on firms [17% on benefits in kind (“Voordeel van Alle Aard” - VAA)].

#### CO<sub>2</sub> solidarity contribution (Federal Level)

At the end of 2011, the rules applied on company cars for calculating the taxable benefit in kind shifted from the parameter “fiscal horsepower” (mostly based on the size of the engine) to a combination of CO<sub>2</sub> emissions and the value of the car.

When an employer provides a company car to an employee that can be used for private purposes, a solidarity contribution by the employer to the national office of social security is due. This monthly contribution depends on the vehicle’s CO<sub>2</sub> emissions and type of fuel, and is a fixed amount. The amount is also linked to the health index of September 2004 and is adjusted each year in January. The indexation coefficient is 1.2051 with effect from 1 January 2015 [KBC, 2015 Tax Brochure Company Cars].

“Green” vehicle registration tax (Flemish Region). The vehicle registration tax is a one-off tax that is collected when a new or used passenger car, dual-purpose vehicle, minibus or motorcycle is registered for use on public roads by one particular person. On 1 March 2012, a new rate scale came into force for vehicle registration tax in the Flemish Region. The new calculation is based on type of fuel, age and a number of environmental features of the vehicle such as CO<sub>2</sub> emissions and engine

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<sup>1</sup> Retrieved from [www.spaarbelastingen.be](http://www.spaarbelastingen.be), August 2015.

<sup>2</sup> Retrieved from [www.fleeteurope.com](http://www.fleeteurope.com), August 2015.

euros standard. However, the tax for leased company cars that are put on the road by certain leasing companies is still calculated on the basis of the power of the engine expressed in kW and the age of the vehicle.

Ecomalus (Walloon Region). Since 1 January 2008, the Walloon region applies a CO<sub>2</sub>-based Ecobonus/-malus scheme for registering a car (company cars excluded). The „éco-bonus“ and „éco-malus“ system was tightened in 2012. As of 1 January 2012, cars emitting less than 81 g CO<sub>2</sub>/km receive a premium-um („éco-bonus“) of 500 EUR to 3,500 EUR. Cars emitting more than 146 g CO<sub>2</sub>/km pay a penalty („éco-malus“) of up to 2,500 EUR. On 1 January 2014, the Walloon government abolished the „éco-bonus“.

The recent policy reform is a step in the right direction. The current reform however is inspired by budgetary needs, not by energy, transport, climate or labour policies. Further reforms would have to include a further reduction of the implicit subsidies to company cars [De Borger, 2012].

### **Relation to Energy Efficiency**

Company cars do not face monetary incentives to reduce (or even) monitor their fuel consumption, thus lessen the concern for energy efficiency.

The implications of providing company cars include [De Borger, 2012]:

- an increase in the car stock, with a shift towards cars in the “upmarket segments” (size, engine power, extra’s, etc.);
- an increase in car-kilometres, because company cars are more intensively used than private cars;
- an increase in congestion;
- effects on other external costs of transport, such as an increase in pollution as well as accidents.

The OECD Economic Surveys Belgium report, published on 4 February 2015, took aim at Belgium’s generous tax breaks for corporate vehicles. *“Massive commuting, subsidised through several tax expenditures in personal and corporate income taxes, raises transport emissions and, in urban areas, congestion and air pollution”* [OECD, 2015, p. 23].

### **Interaction between objectives**

The current implicit government subsidies to company cars would require very high congestion charges, and would also justify “free” public transport [De Borger, 2012].

An optimal tax treatment of company cars would imply less company cars, a decline in car-kilometres, congestion, and pollution levels; and an increase in public transport [De Borger, 2012].

### **Interaction between target groups**

The target groups are the Flemish commuters, with those who wish to keep the benefits of using a company car against those who wish to decrease the use of company cars, and of cars in general.

End 2014, three Belgian NGO’s, the “Federation for a Better Environment” (“Bond Beter Leefmilieu”), the “Flemish League against Cancer” (“Kom op tegen Kanker” and the “Sustainable Mobility Network” (“Netwerk Duurzame Mobiliteit”) started a petition against company cars, collecting 25,000 signatures. Belgium at the time was in the midst of a political debate about shifting taxes from labour to consumption and pollution. A big element of the petition was a call for company car subsidies to be used to fund lower labour taxes. The petition received support from leading economics professors and all the leading national newspapers. The Federal Government in the end reacted by saying the policy around company cars will remain unchanged for the time being.



Three Belgian car federations, “[FEBIAC](#)” (Belgian Federation of the Car and Two-wheeler Industries), [Federauto](#) (now TRAXIO) and [Renta](#) (Belgian federation of rental and lease companies), commissioned KPMG to study the different aspects of company cars. The report, published on June 12, 2012, concluded that [[KPMG, 2012](#)]:

- Company cars are generally more environmentally friendly than privately-owned cars, as they are replaced, on average, every three or four years ;
- Company cars do not drive significantly more kilometres annually, compared to privately owned cars, except when used for professional purposes;
- When evaluating an increase in taxation and comparing the regime with the neighbouring countries, the authorities should take into account the existing high tax and social security burden in Belgium;
- Company car policies are favouring vehicles with low CO<sub>2</sub> emissions and are integrating tools that measure the ecological footprint of the fleet.

FEBIAC also points out that Belgian motorists have no alternative to commuting by car, because of Belgium’s lack of a coherent public transport offering. The Belgian public transportation system lacks connectivity and has a poor timeliness record. Furthermore, company cars as “a tool of the trade” are comparatively “over-taxed”. FEBIAC furthermore points out that company cars ‘only’ comprise 20% of Belgium’s total fleet of 5.4 million [[fleeteurope.com, 05.02.2015](#)].

Most tax payers in the meanwhile have dealt with the tax increase of 2011 in an intelligent way. They choose a combination between a reasonable car value and a low CO<sub>2</sub> emission, thus reducing the taxable car benefit to the pre 2012 values or even below [[Jan Lambrechts, Ichiban consult blog, 29.10.2014](#)].

### **Interaction between Rules-Influencing Mechanisms**

An optimal tax policy would consist of 1) introducing congestion charges (see D1.2.1); 2) an “optimal” tax treatment of company cars; and 3) a reduction in labour taxes.

An „optimal tax reform“ would therefore imply a combination of measures [[De Borger, 2012](#)]:

- reducing the implicit subsidies to company cars;
- introducing a form of „road“ or „congestion“ pricing;
- reducing the tax pressure on labour;
- offer sufficient alternatives to the car, including more efficient public transport.

The Flemish Social Environment Association (“*Bond Beter Leefmilieu*” - BBL) and an organisation for sustainable mobility “Mobiel 21”, in cooperation with the sustainable mobility organisation “Traject”, Labour & Environment (“Arbeid & Milieu”) and other stakeholders) investigated the idea of a “multi-modal mobility budget”, allowing an employee to spend it on a large range of transportation means. The study concluded that administrative burden and extra wage costs for the employer and the wage loss for the employee should be avoided. However, the system should not be made compulsory. Employers should be able to choose the system they deem best. Trade Unions defend the employee’s right to choose and even quit the system if they wish [[BBL, 2010](#)].

The European Automobile Manufacturers Association (ACEA) welcomes the trend towards CO<sub>2</sub>-related car taxation in the EU. However, it regrets the lack of uniformity in the implementation of these taxes. They support taxation for passenger cars that is exclusively based on CO<sub>2</sub> emissions; technologically neutral; linear; and budget neutral [[ACEA, 27.03.2015](#)].

### **Interaction between the Implementation Network / governance structures**

Vehicle registration taxes are a Regional competence. The fiscal treatment of company cars is a Federal competence.

Subsidizing company cars constitutes a large budgetary cost for the Federal Government. A Danish study calculated that the Belgian Government spends 1.2% of their GDP (about 4.1 billion euro) on a favourable taxation environment for company cars. The high cost of the funds implies that the welfare costs are even much higher [[Copenhagen Economics, 2010](#)].

End 2014, the Belgian finance minister stated that the fiscal system favouring company cars was the 'prototype' of rules to be reconsidered within the framework of a 'tax shift' away from the heavy burden on labour in Belgium. But he also warned that the rules benefiting corporate mobility were very complex – precisely because of their inverse relation to high personal taxes – and should not be amended in haste [[Press Communication, 02-12-2014](#)] [[fleeteurope.com, 02.12.2014](#)]. He later commented that a revision of company car tax benefits in Belgium is not on the agenda.

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