

GreenEcoNet Policy Brief

Decarbonising the EU economy by 2050: the contribution of SMEs to the decarbonisation of the transport sector

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Abstract

SMEs should be better integrated into the European policy framework on the decarbonisation of transport. The objective of this policy brief is to identify policy recommendations aimed at creating an enabling environment which could allow the European Union to take full advantage of the potential SME contribution in the decarbonisation of the EU transport sector by 2050, by accelerating the implementation of low carbon transport solutions.

Main policy messages

- Financial barriers should be lowered, possibly with the implementation of well monitored, specific channel dedicated to SMEs which find access to finance to be one of the major barriers to the uptake of green solutions.
- Access to funding should be simplified, since bureaucracy and administration costs take a higher proportional toll on SMEs due to their lack of skills and capacity .
- Necessary to identify instruments for the provision of information, skills improvement and capacity both from the technology and the business planning points of view.
- Good examples of instruments to lower bureaucratic, skills and capacity barriers exist; More should be done to maintain these instruments over long periods of time.

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1. Introduction

In Europe there are 23 million small to medium enterprises (SMEs). In absolute numbers, they are 99% of all business in the macro region, providing two thirds of private-sector employment, more than two third of the new jobs in the last 5 years and more than 50% of the GVA (see e.g. BRS Stars, 2016).

However, it is estimated that these SMEs account for 60–70% of the total pollution (Aragón-Correa et al., 2008). The Carbon Trust (2009) estimates that many SMEs have reasonably small energy use (1-2%) which results in exemption from carbon reduction policies, causing the potential contribution of SMEs to decarbonisation pathways to be underexploited.

There is then a relevance in investigating the uptake by European SMEs of low carbon solutions and of how they could help the European Union achieve the decarbonisation goals. In our policy brief we focus in particular on the adoption by SMEs of low carbon solutions promoting the decarbonisation of the European transport sector.

The objective of this policy brief is to identify policy recommendations aimed at creating an enabling environment which could allow the European Union to take full advantage of the potential SME contribution in the decarbonisation of the EU transport sector by 2050, by accelerating the implementation of low carbon transport solutions.

SMEs can contribute to the decarbonisation of the transport sector in five ways:

- By providing low carbon solutions to others (e.g. individuals, households or organisations)
- By adopting low carbon solutions that have been developed by others
- By developing and adopting low carbon solutions in house
- By promoting the adoption of low carbon solutions by their staff
- By recommending or requiring their suppliers to adopt low carbon solution

2. European Policy Framework

The EU policy framework covering transport decarbonisation is composed of a wide range of initiatives and policy measures which are intertwined with Member States national level mechanisms. Whilst some of these measures are enforceable policy making instruments, others can be interpreted as recommendations. These initiatives can be specific and dedicated instruments, i.e. which specifically cover the decarbonisation of the transport sector (see for example The Regulation Reducing CO₂ from New Vans No 443/2009), or be embedded into more generic instruments which either cover the whole transport sector or the whole economy in general (see for example the Renewables Directive, Directive 2009/28/EC).

The European Commission (EC) addresses this complexity in COM(2011) 144 - 'Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system' - selecting a subset of EU multinational policy initiatives relevant to transport decarbonisation (See Annex 4 of the accompanying impact assessment, SEC(2011) 358 final).

In order to assess the policy framework in place in 2016, we have revised, assessed and updated this 2011 list of policy measures to creating a baseline set of EU level policy measures applicable to transport decarbonisation (See Table 1 below). We have then analysed the text of each policy measure and scored it with a 'SME support rating' describing the level of support offered to those SMEs who are contributing to decarbonise the European transport sector

under one of the five mechanisms identified here above. The “SME support ratings” may take any of 5 levels (“None”, “Minimal”, “Acceptable”, “Good”, “Excellent”) using the scoring criteria described here below:

- Excellent - Specific targets and policy support aimed at transport SME decarbonisation and relevant exemptions recognizing special importance and circumstances of SMEs;
- Good - Targets for broad transport decarbonisation and some policy support to achieve, them including exceptions for SMEs;
- Acceptable - Some decarbonisation relevant targets for the transport sector or special recognition of SME decarbonisation needs;
- Minimal - Formal policy level recognition of SMEs’ special circumstances and needs only;
- None - No mention of SMEs and their needs in setting decarbonisation targets or regulatory requirements.

Table 1 - EU level transport decarbonisation policy measures rated by SME support level, in descending order (Excellent, Good, Acceptable, Minimal, None)

Policy measure	Directive/Regulation	SME Support
Regulation Reducing CO2 from New Cars	Regulation No 443/2009	Good
Regulation on CO2 from Vans	Regulation No 443/2009	Good
EU ETS Amending Directive	Directive 2009/29/EC	Acceptable
Energy Taxation Directive	Directive 2003/96/EC	Acceptable
Emissions Limits Introduced for New Cars and Light Commercial Vehicles	Regulation No 715/2007	Acceptable
Emissions Limits Euro VI for Heavy Duty Vehicles	Regulation No 595/2009	Acceptable
Renewables Directive	Directive 2009/28/EC	Minimal
Fuel Quality Directive	Directive 2009/30/EC	Minimal
Labelling Regulation for Tyres	Regulation No 1222/2009	Minimal
GHG Effort Sharing Decision	Decision 406/2009/EC	None
Directive on National Emissions’ Ceilings for Certain Pollutants	Directive 2001/81/EC	None

Our analysis suggests that the overall EU policy framework scores average to poor in supporting those SMEs that could contribute to the decarbonisation whilst no policy measure received an 'Excellent' score. Policy measures rated Minimal to Acceptable mentioned SMEs only in terms of accessibility.

Only two policy measures included sections specifically tailored to decarbonisation and SMEs- 'Regulation Reducing CO₂ from New Cars' and 'Regulation on CO₂ from Vans' and were rated "Good". All other measures analysed did not specifically refer to SMEs and decarbonisation and covered SMEs within the broad transport sector.

These two measures derived from the same regulation (Regulation No 443/2009) and identified two specific mechanisms specific to SMEs and decarbonisation of transport: the exemption from the targets for the smaller independent' enterprises and the opportunity for medium-sized car manufacturers to apply for a fixed emissions target or set their own target, rather than meeting the more restrictive but also more restrictive target for larger firms.

Whilst a setting mechanisms that are specific to SMEs in a policy measure rather than identifying blanket coverage measures is a welcome approach, it seems that the specificity is in this case tantamount to exclusion from policy measures rather than to the setting of an enabling environment.

That being the case, our conclusions from the analysis of the policy measures suggests that the current level policy support for SMEs in Europe in regard to their contribution to the decarbonisation of the transport sector under the five mechanisms identified above is inadequate. In particular, this support does not seem to keep into account the real world barriers SMEs face when attempting to contribute to the decarbonisation of the transport sector or the economy at large, as we will discuss in the next section.

3. Evidence from GreenEcoNet's research and case studies

The GreenEcoNet online platform (www.greeneconet.eu) was born out of EC FP7 co-funded project of the same name with the aim of becoming the leading platform to support the transition to a green economy in European Small and Medium Enterprises. To do so, the GreenEcoNet platform allows SMEs to publish case studies of the green solutions they have developed and to search a taxonomically organised database of green solutions offered by other SMEs, enabling them to learn from each other¹. Furthermore, it allows them to receive support from leading research institutions and to channel feedback to policy makers. The platform database has grown to host around 80 approved enterprises².

GreenEcoNet research over the last 3 years suggests that³ European SMEs, and more specifically those SMEs that are involved in the GreenEcoNet platform, tend to mainly be concerned with company survival and sustainability, i.e. "day-to-day" operations and that "being green" is a lesser priority. Among the barriers, lack of technical and managerial

¹ The accessibility of green solution is assessed, vetted and approved (or rejected) through a systematic approval expert based process, the description of which is outside the scope of the present document.

² As of 01/05/2016.

³ See for example the Proceedings from the 3rd Workshop of GreenEcoNet:

http://www.greeneconet.eu/sites/default/files/publications/GreenEcoNet_Berlin_Workshop_write-up_final_0.pdf.

knowledge, skills and information, the lack of capacity and mind set to develop scenarios and the necessary business models were quoted as important, together with the lack of access to funding and the high capital investment necessary and the lack of access to information. Among the needs, the provisions of financial support to existing SMEs and to start-ups, with the latter potentially able to deliver more on transformative changes than existing SMEs, support to Internationalisation, policy makers are needed who understand the problems and challenges facing SMEs and are able (and willing) to influence SME specific policy support and increased information and awareness ranked high.

Whilst some of these answers seem to be in contrast with the literature which suggest that a high level of support is provided by the European Union (Gratiela, 2014), the fact that SMEs are ready to pay more for greener products and services seem to suggest that SMEs are ready to play a proactive role in decarbonisation of the economy, and hence of the transport sector.

To support the current policy brief, we have analysed all of the case studies to identify those among them that focus on green solutions that may contribute to the decarbonisation of the transport sector in Europe using one of the 5 mechanisms identified here above. Table 2 contains an overview of these enterprises with the country of origin, the solution and finally the type of low carbon solution they are contributing (Product, Organisational Method, IT, Network and Communication).

Table 2 - Decarbonisation Solutions from GreenEcoNet

Name	Country	Solution	Solution Type
SerEnergy	Denmark	Mobile hybrid power	Technology/Product
EAE Ltd	United Kingdom	Biofuel powered vehicle fleet	Technology/Product
Aad de Wit Verrhuzingen	Netherlands	Zero-Emission furniture removal service	Technology/Product
Van Dorp	Netherlands	Natural gas vehicles	Technology/Product
Alfa Omega	Greece	Food distribution by bicycle	Technology/Product
Fruit 4 London	United Kingdom	Food distribution by electric vehicle	Technology/Product
HOE 360 Consulting	Denmark	Flex-Parking for bicycles and cars	Organisational methods
Bike Rescue	United Kingdom	Rescued bikes for business needs	Organisational methods

Rabbie's	United Kingdom	Tour company	Organisational methods
Bettaveg	United Kingdom	Food supplier	Organisational methods
Eco-Catering-Equipment	United Kingdom	Commercial equipment supplier	Organisational methods
CO2logic	Belgium and Netherlands	Calculating, reducing and offsetting CO2 emissions for businesses	Organisational methods
Greenstar	Netherlands	Improving driving behaviour to reduce CO2	IT
Velogistics	Germany	Free cargo bike sharing website	Networks and Communication

4. Conclusions

GreenEcoNet's research suggests that SMEs should be better integrated into the European policy framework on the decarbonisation of transport. Outcomes of other EU FP7 co-funded projects seem to support our conclusions (see e.g. POSMETRANS).

In order to promote the adoption by SMEs of low carbon transport solutions, the financial barriers should be lowered, possibly with the implementation of well monitored, specific channel dedicated to SMEs which find access to finance to be one of the major barriers to the uptake of green solutions. Access to funding should be simplified, since bureaucracy and administration costs take a higher proportional toll on SMEs due to their lack of skills and capacity. Finally, it is important to identify instruments for the provision of information, skills improvement and capacity both from the technology and the business planning points of view.

Good examples of instruments to lower bureaucratic, skills and capacity barriers exist, see e.g. the KICs⁴ founded by the EIT (European Institute of Innovation and Energy) and the GreenEcoNet platform. They promote the interaction between market actors such as SMEs and start-ups, research and technology organisations, higher education institutions, investors' communities, research funders, and they realise channels of communication between SMEs and local, regional and national governments.

More should be done to maintain these instruments over long periods of time to allow SMEs access to consistent long term support in their quest to adopt green solutions.

⁴ A KIC is a partnership which brings together the fields of education, technology, research, business and entrepreneurship, in order to produce new innovations and new innovation models that inspire others to emulate it. KICs bring together different people working together across the innovation web.

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About GreenEcoNet

GreenEcoNet is a project financed by the 7th EU Framework Programme for Research, which brings businesses and academia together on an EU-wide platform to support small and medium enterprises (SMEs) in the transition to a green economy. This platform (<http://www.greeneconet.eu/>) allows SMEs in Europe to connect to each other and to share their experiences, innovations and best practices. It thus aims to assist SMEs in optimally reaping the business opportunities of a green economy. Partners in GreenEcoNet are: the University of York - Stockholm Environment Institute, the Centre for European Policy Studies (CEPS), the University of Piraeus Research Center (UPRC), the Ecologic Institute, JIN Climate and Sustainability and the Green Economy Coalition.

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