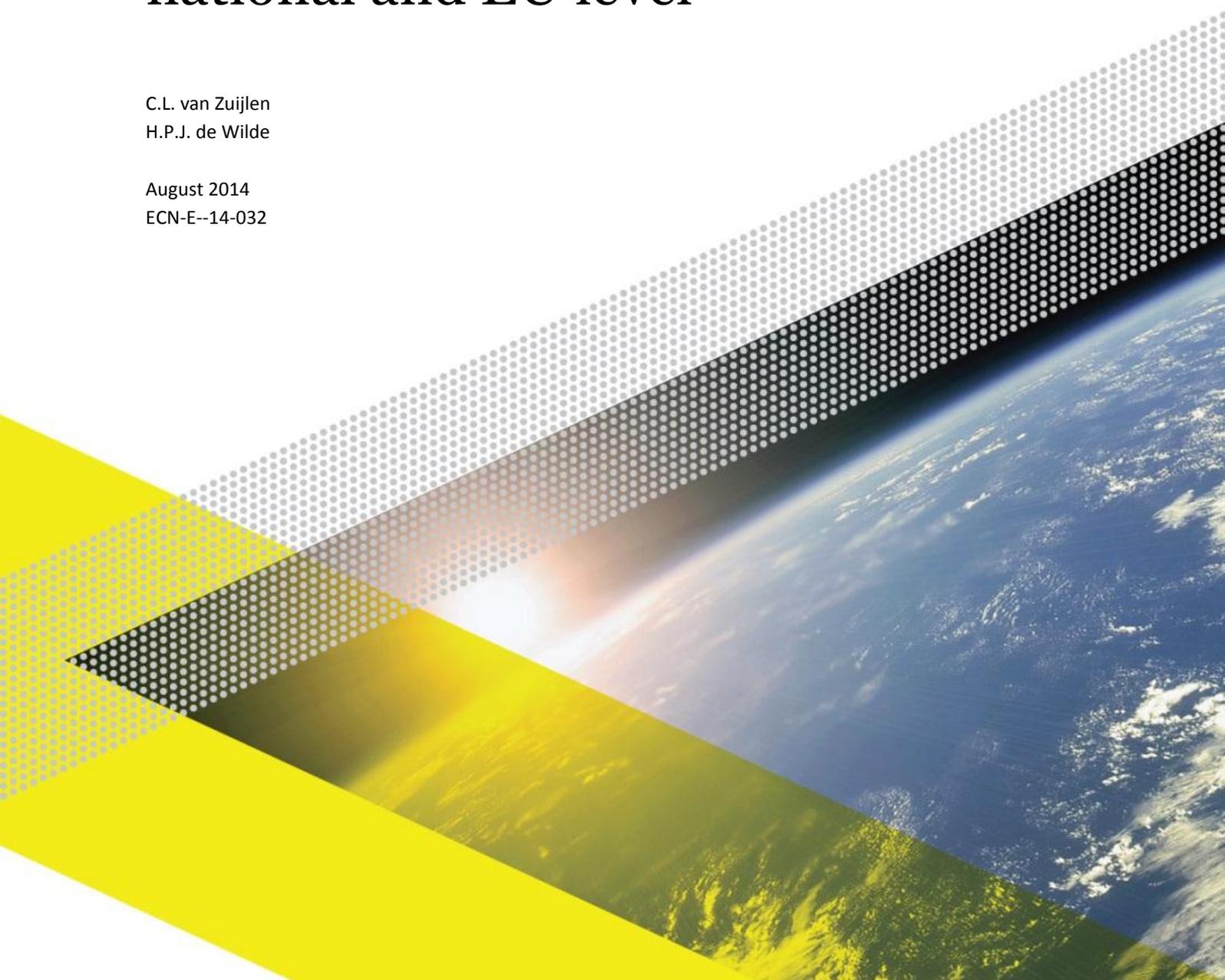


# INITIAL SCAN

## policy alignment of electromobility at the local, national and EU level

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## Abstract

This report provides an initial scan of the alignment of the various administrative layers involved in fostering the roll-out of electromobility (local, provincial, national, EU). Based on interviews, the viewpoints of key stakeholders at each policy level are categorized and discussed. For each 'policy layer' this involves a reflection on the effectiveness of their own role, as well as their viewpoint on the role of the other policy layers involved. Finally it is indicated how these initial results may serve as a starting point for improved alignment of future policies.



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# 1

## Introduction

### Objective

The objective of the study is to scan the alignment of the policies and measures at different policy levels (local, provincial, national, EU) towards the success of electromobility initiatives at the local level. And, where possible, to identify synergies and trade-offs between the different policy levels involved, allowing to advice on future improvements.

### Rationale

Under the influence of environmental targets for air quality and CO<sub>2</sub> reduction, electric transport is currently receiving more attention, especially in cities. Initial contacts with the city of Utrecht regarding local initiatives to improve air quality suggested that policies at the local, national and EU-level are not always aligned optimally. This observation was especially supported by an initiative for rolling out charging infrastructure for electric vehicles: the EU subsidy requested did not allow for a fast start of the project. After sharing these findings with the Ministry of Infrastructure and Environment, the Ministry commissioned a project for an initial scan on the alignment of all administrative levels involved in fostering electromobility.

### Approach

The following approach has been used in this initial scan:

1. Identification of relevant stakeholders at European, national, provincial and local policy level (Figure 1).
2. Identification existing policy measures at European, national, provincial and local level.
3. Interviews with different policy makers regarding: their perspectives on the influence of policy measures, their own role and roles of the other administrative layers regarding the roll-out of electromobility. The policy makers indicated in bold (Figure 1) have been interviewed in this initial scan.
4. Short analysis and discussion of the main outcomes of the interviews.
5. Drawing conclusions.

Both literature and interviews are used in order to collect the information and data required.

### Overview of administrative layers involved

Figure 1 gives an overview of the administrative levels and policy makers considered, ranging from the local to the EU level. Each administrative layer is indicated with a colour that is consistently used in all graphs and figures throughout this initial scan. For each administrative level (left side of Figure 1) several policy makers/stakeholders are indicated (right side of Figure 1).

**Figure 1:** Overview of policy makers at the different administrative levels. Policy makers in bold, all represented by one interviewee, have been interviewed in this initial scan. Note that each administrative level is indicated with a specific colour, that is consistently applied throughout this initial scan.



### Limitations

This initial scan does not aim to be comprehensive, but rather to provide indicative insights. Although many stakeholders are involved in the roll-out of electromobility, this scan only focuses on the (role of) relevant policy (or policy related) actors. Inevitably the limited number of interviews and policy makers considered in this first initial-scan scan only allows for tentative conclusions.

Also, the number of policy makers considered per administrative layer is limited. For example, for the EU no distinction was made between the various departments. Only the policy makers indicated in bold in Figure 1 have been interviewed so far<sup>1</sup>. The policy makers indicated, were represented by one interviewee, that was interviewed at least once. All interviewees keep a relevant and strategic position within their organization. However, this does not necessarily imply that all the statements from interviewees fully coincide with the 'official' viewpoints of the organizations they represent.

Finally, for practical reasons the initial scan is largely focused to electric vehicles (cars, including taxis, delivery vans and e-scooters) as well as the charging infrastructure associated.

<sup>1</sup> The summary tables of the interviews, as published in this quick-scan, were approved by the interviewees.

**Outline of this initial scan**

Following the introduction and background in Chapter 1 and 2, Chapter 3 describes the policy incentives at the local, provincial, national and European level. Chapter 4 provides the main outcomes of the interviews followed in Chapter 5 by a brief discussion and generic analysis of the main outcomes. Finally, Chapter 6 gives some recommendations.

# 2

## Background

### **Starting point**

'Utrecht Electric' is one of the case studies in the on-going project 'Shape-it', that is part of the ERA-NET Stepping Stones Programme. The Utrecht case study evaluates *local* policies and incentives for electromobility in Utrecht - as well as their interrelations. In addition, the effectiveness of the Utrecht approach in fostering sustainable urban mobility is compared with the local approach in European cities. However, the Shape-it project only marginally addresses how policies at the national and European level impact *local* electromobility initiatives. To shed more light on the impact of the higher policy levels towards the success of local electromobility initiatives, the current Initial Scan was commissioned. The Initial Scan is complementary to the Shape-It project, and takes the local situation in the city of Utrecht as a starting point. That means that the initial scan aims to identify to what extent the higher policy levels contribute to the success of *local* electromobility initiatives in the city of Utrecht.

### **Environmental drivers for electromobility policies**

Under the influence of environmental targets for air quality and CO<sub>2</sub>-reduction, electric transport is currently receiving more attention, especially in cities.

### *Air quality*

Air quality and associated health problems are most relevant in city centers, because of: (1) the dense population and consequently large number of people exposed; and (2) the municipal building structure, with 'street canyons', limiting dilution of exhaust gases, and associated relative high impact on the atmospheric concentration of pollutants. Following the EU targets for air quality improvement, notably through the Air Quality directive, cities are obliged to improve local air quality. As electromobility does not cause local air pollution at all, it is one of the options to solve municipal air quality problems. Therefore electromobility is being incentivized by policies at the local, national and EU-level.

### *CO<sub>2</sub> reduction*

In contrast to the local relevance of air quality, CO<sub>2</sub> emissions and resulting climate change are a global issue, as the location of the emissions is not relevant. Electric vehicles emit about 30 - 50% less CO<sub>2</sub> than conventional vehicles, based on the current average electricity mix used to charge the batteries (Ros and Van Essen, 2014). However, more importantly, electromobility allows close to zero emissions when charged with electricity from renewable sources, especially sun and wind. On the long term electromobility therefore has the potential to enable fully climate-neutral urban transport. This is an additional policy driver for incentivizing electromobility.

### *Resulting policy measures*

For the above reasons (and noise), electromobility is incentivised by policy measures and other initiatives at the local, national and EU-level. Mostly these policy measures are generic; i.e. they do not specifically foster electromobility as such, but rather all clean and efficient transport solutions that enable to meet the targets set for air quality and CO<sub>2</sub>-reduction. In addition to these generic drivers and policies, also measures have been developed that specifically foster the roll-out of electromobility. At the local level, Utrecht is one of the key cities in the Netherlands that specifically endorses electromobility, via its programme 'Utrecht Electric'. This programme facilitates the roll-out of local electromobility in order to make the motorized transport in the city as clean and sustainable as possible.

# 3

## Overview policy measures electromobility

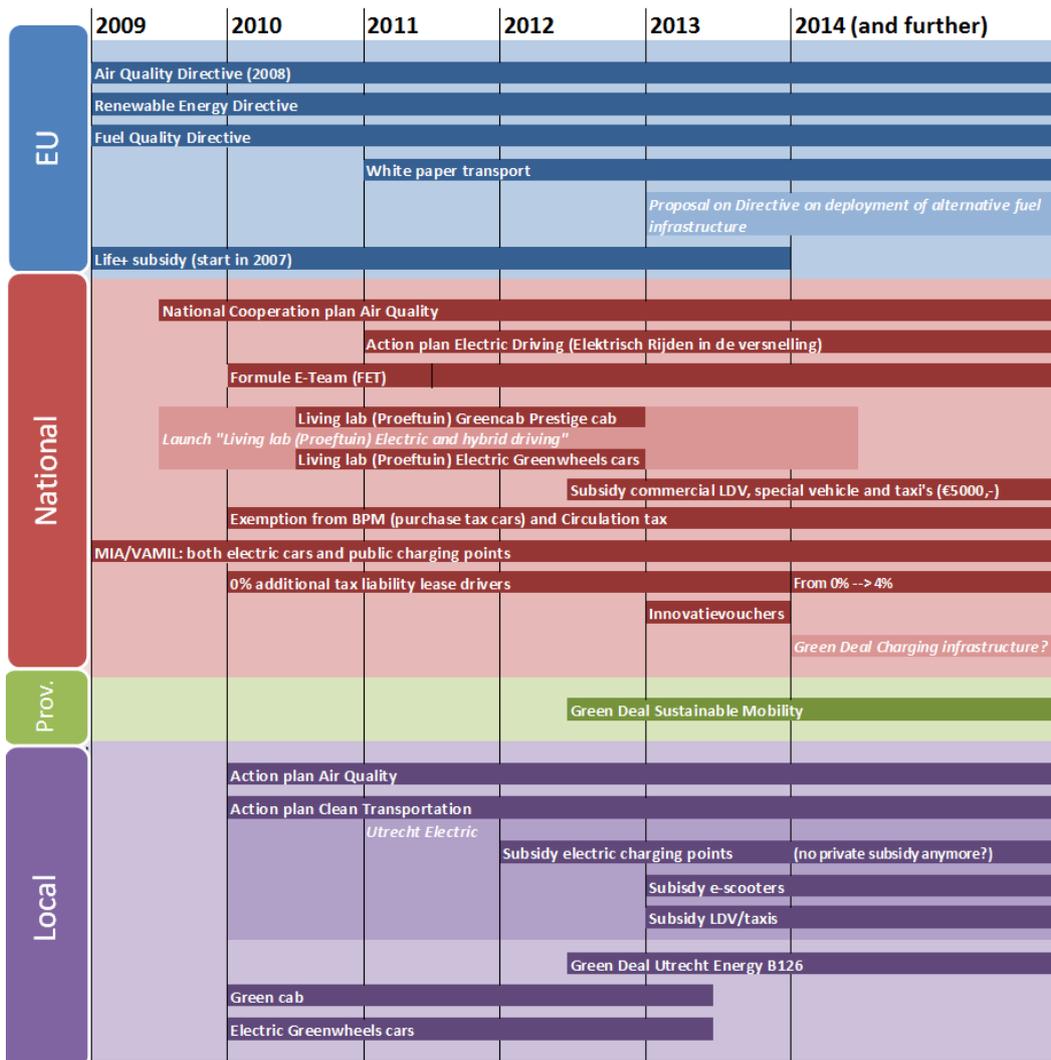
This chapter provides an overview of the policy measures and other initiatives towards fostering electromobility at all administrative levels (local, provincial, national and EU).

### 3.1 Overview of policy measures

The analysis in this Initial Scan focuses on the case study Utrecht. Therefore, for the higher administrative levels, only policy measures are included if they were mentioned during the interviews and in addition relevant for the local programme 'Utrecht Electric'. The resulting overall policy overview, encompassing all administrative levels, is provided in Figure 2. Each administrative level is indicated with a specific colour, that is consistently applied throughout this initial scan (i.e. purple for local, green for provincial, red for national and blue for the EU)

The subsequent paragraphs briefly describe these various policy measures at the different levels. First the local level of Utrecht Electric is discussed in section 3.2, followed by the provincial, national and European level in sub-section 3.3, 3.4, and 3.5, respectively.

Figure 2: Schematic overview policy measures at the different administrative levels.



Note: This is not an exhaustive overview of all policy measures related to electric transport. For example the SER Energy Agreement and the subsequent Fuel Vision Trajectory, FP7 projects, and other 'Green Deals' have not been taken into account, as they were not mentioned or discussed during the interviews.

### 3.2 Local level

In December 2009, the city of Utrecht published its 'Action Plan Air Quality Utrecht' which describes how the city will reduce local air pollution between 2010 and 2014 in order to meet the air quality standards of the EU by 2015 (ALU, 2009) and simultaneously will improve its accessibility. As a next step, the local government of Utrecht launched its 'Action plan Clean Transportation 2010-2014'. The plan elaborates more specifically on how the city will endorse the use of bicycles, public transport and cleaner transport in order to improve local air quality (Gemeente Utrecht, 2010). The Action Plan gave rise to the specific programme 'Utrecht Electric' that aims to foster electric transport in order to make the motorized transport in the city as clean as possible and to enhance sustainable transport.

The programme '**Utrecht Electric**' has three main pillars for the roll-out of electric vehicles:

1. To establish a network of 200 charging points for electric vehicles.
2. To electrify the city's own car fleet (about 60 cars and scooters).
3. To cooperate with businesses and citizens in order to expand electric transport.

Within these three pillars, incentivizing measures, knowledge development, communication and education play an important role for the city. Utrecht Electric focuses on passenger cars, scooters and commercial vehicles, although the programme also mentions trucks and buses as key vehicles to introduce electricity. Main target groups are the drivers with the largest share of driven kilometres (and associated environmental impact) in the city. This basically concerns daily (business-)drivers within the city, such as real estate agents, home care institutions, general practitioners, real estate agents, taxis and delivery light duty vehicles/vans and scooters.

Currently within this programme, the local government has set up the following main incentivizing measures for electromobility:

- Two incentives comprise **subsidies for charging points**: a charging point either at semi-public property (max. subsidy € 2500) or private property (max. subsidy € 500). However, from 2014 onwards the subsidy for a charging point at private property is no longer available at the website.
- Two other incentives are **subsidies for e-scooter riders**: e-scooters for companies with a minimum annual driving range of 3000 km (max. subsidy € 1500) or e-scooters for commuter traffic with a minimum annual driving range of 2000 km (max. subsidy € 1000).
- In addition, the community also delivers an **additional subsidy of € 2500-3000 for light duty vehicle and cabs**.
- Next to these subsidies, a '**Green Deal Utrecht Energy (B-126)**' has been signed in June 2012 between the local government of Utrecht and the Ministry of Economic Affairs and the Ministry of Infrastructure & Environment (Ondernemend Groen, 2012a). Part of this Green Deal aims to achieve that companies take mobility measures (such as cleaner or less cars in their fleet) in order to reduce their CO<sub>2</sub>-footprint.
- Furthermore, two of the nine national 'Proeftuinen' (Living labs) were represented in the city of Utrecht between 2010 and 2012: '**Proeftuin Greencab Prestige Cab**' and '**Proeftuin Greenwheels**'. These two measures are discussed in more detail in section 3.4, as part of the general description of the national 'Proeftuinen' project.

### 3.3 Provincial level

In June 2012 a '**Green Deal Sustainable Mobility (B-135)**' was signed between the province of Utrecht, the city of Utrecht, U15 (a platform of companies) and the Dutch Ministries of Economic Affairs and Infrastructure & Environment (Ondernemend Groen, 2012b). Two parts of the Green Deal included targets for the roll-out of electromobility, specified as: ( 1) stepwise increasing electric transport towards 100% of bus fleet electrically driven in 2025; ( 2) cooperation with companies to establish clean and fuel efficient mobility.

## 3.4 National level

First of all, an overarching policy plan for electromobility is the **‘National Cooperation Plan Air Quality’** (in Dutch known as: *‘Nationaal Samenwerkingsprogramma Luchtkwaliteit (NSL)’*). The programme was initiated in response to the European standards for air quality (see also section 2.4). The National Cooperation Plan Air Quality comprises a set of measures in order to reach the air quality standards by 2015. The province of Utrecht is one of the target provinces where a strong reduction is required. The total costs for regional measures in Utrecht are estimated to be about € 181 million. The national government has reserved 68 million for the required measures in Utrecht (NSL, 2009).

Next to this, the national government launched the policy plan: **‘Action plan Driving Electric’ (Elektrisch Rijden in de versnelling)** in 2011. The action plan presents a strategy to reach a target of 20,000 electric vehicles by 2015. This programme aims to roll-out electromobility in so called focus areas as well as in market segments where viable business cases can be achieved for electric transport (Rijksoverheid, 2011).

In 2010, the **Formule E-team** has been established: a platform aiming to pave the way for electromobility in the Netherlands, through cooperation between companies, knowledge institutions and the national government.

In May 2010, the Dutch Government approved nine projects for the subsidy programme **‘Living labs’ (pilot projects) hybrid and electric driving’** with a total budget of € 10 million (in Dutch known as: *‘Proeftuin programma’*). These ‘living labs’ aimed to stimulate the roll-out of both plug-in hybrids and battery electric vehicles and to learn from practical operations (learning by doing) what is required to make electric driving a success (Rijksoverheid, 2010). Two pilot projects were present in the province/community Utrecht: **‘Greencab Prestige cab’** and **‘Electric Greenwheels cars in the G4’**. The project ‘Greencab Prestige cab’ invested in 18 electric (passenger car) taxi’s and associated charging points. ‘Electric Greenwheels cars’ introduced 25 electric Greenwheels cars and accompanying charging points in the G4-cities (Amsterdam, The Hague, Rotterdam and Utrecht), (Agentschap NL, 2010). Both projects have ended by now.

The Dutch government also provides **subsidies for the purchase of electric light duty commercial vehicles and taxis** from 1 October 2012 till 1 January 2015. There is a total budget of € 20 mln available. Electric light duty commercial vehicles and taxis can receive a purchase subsidy of € 3000. An additional budget of total € 4 mln reserved for the G4 cities. This means that for Utrecht an additional purchase subsidy of € 2000 per light duty vehicle or taxi is available (Agentschap NL, 2012).

In addition to these subsidies, electric vehicles may also profit from several fiscal incentives. In 2012, the following fiscal measures were present (Agentschap NL, 2012) (Auto en Fiscus, 2013):

- Exemption from registration tax (BPM) for electric vehicles.
- Exemption from circulation tax (MRB).

- **0% additional tax liability lease riders ('bijtelling')**: i.e. the exemption from the obligation to add up to 25% of the new car list price to the employee's gross income; from 2014 onwards the measure changed into 4% additional tax liability for full electric vehicles and 7% for PHEV's.
- **Environmental Investment Deduction** (in Dutch: **Milieu Investerings Aftrek, MIA**), that enables to reduce the net costs of investments for companies through this fiscal measure.
- **VAMIL** that offers the possibility for reducing company tax through arbitrary / unrestricted amortisation of 75% of the investment costs.
- **KIA** involving the fiscal stimulation of investments by small and medium sized companies (SMEs).

Furthermore, in the beginning of 2013 an '**Innovation voucher**' was launched by Agency NL. This was to enable SMEs to '*buy knowledge*' about electric mobility with a maximum of € 5000 (Agentschap NL, 2013). 100 vouchers have been delivered. The total available budget has already been depleted, so application is no longer possible.

In addition, a '**Green Deal Charging Infrastructure**' is currently being developed, which is discussed within the interview outcomes in chapter 4.

## 3.5 EU-level

In 2008 the '**Directive on ambient air quality and cleaner air for Europe**' came into force with air pollution reduction targets for 2011 (EC, 2008). Derogation has been derived for the Netherlands, which implies that the targets for PM<sub>10</sub> and NO<sub>x</sub> should be met by 2015. This directive gave rise to the National Cooperation Plan Air Quality as described in section 3.4.

Next to this, the European Commission recently proposed the '**Directive on the deployment of alternative fuel infrastructure**'. Part of the proposed directive would be a target per country for different types of alternative fuel infrastructure, including targets for charging facilities for electromobility. The directive is still under discussion and currently not yet signed by the Netherlands and other countries.

The **Renewable Energy Directive**, the **Fuel Quality Directive** (both published in 2009), **White Paper for transport** (2011) and the **CO<sub>2</sub>-reduction legislations for cars and vans** provide so called 'flanking policies' for the roll out of electromobility. These policy instruments aim among others to increase the share of sustainable and alternative fuels, to reduce CO<sub>2</sub> and air polluting emissions from transport; and to increase the development of alternative drivetrains. (EC, 2009, 2011)

In addition to these flanking policies and regulations, the European Commission also initiated large subsidy programmes in Europe. For example the **Life+ subsidy** as a Financial Instrument for the Environment entered into force in 2007. For the Netherlands, a total budget of € 8.5mIn is available. The community Utrecht applied for this subsidy for its charging infrastructure, but faced some problems (which will be discussed later on). The European Commission continues to initiate subsidy frameworks

that are also relevant for electro mobility, notably the recently started 'Horizon 2020' Framework Programme for Research and Innovation (<http://ec.europa.eu/programmes/horizon2020/>).

# 4

## Interview outcomes

This chapter provides the main outcomes of the interviews at the different administrative levels, summarized in the four tables below. The colours of the tables correspond to the colour code as introduced in chapter 1; i.e. purple for local, green for provincial, red for national and blue for the EU. Each table summarizes the viewpoints of one specific administrative layer. As an example, Table 1 first describes the perspectives of the *city* of Utrecht on their own policies and next their vision on the roles of each of the other administrative layers (local, provincial, national, EU). Subsequently, Table 2 describes the perspectives of the *provincial* policy maker on their own role, followed by their view on the other policy layers; Table 3 summarizes the perspectives of the *national* policy maker and Table 4 the perspectives of the *EU* policy maker.

**Table 1:** Local level (City of Utrecht) interview summary. The first part of the table gives key issues regarding their own role towards fostering electromobility. The second part gives the vision of the City of Utrecht on the role of the other administrative levels (i.e. provincial, national and EU).

CITY OF UTRECHT: key issues regarding their own role	
Local	<p><b>Local key players and businesses are crucial:</b> involve relevant companies and seek ways to <b>integrate/comply with their needs and interests.</b> (Example: <b>U15 company platform</b> - one of the drivers is CO<sub>2</sub>-performance ladder)</p> <p><b>Long term commitment is more effective than once-only start-up support.</b> (Example: <b>'Lease Express'</b> delivered many electric scooters to courier services; not per se financially driven, but by 3 year commitment). Difficult to attract new (SME-)key players right now.</p> <p><b>Communication is crucial to make things happen.</b> This is an important role for the city: towards companies and key players, but also towards citizens (about intended plans and establishment of charging points).</p> <p><b>Flexible and continuously adapted tailor made solutions</b> are required to make things happen.</p> <p><b>Out of the box thinking:</b> see/look for opportunities/things that others do not yet see (shared interests, solving hurdles, creating commitment etc.)</p> <p><b>Pilot project Greencab came too early, also with respect to the available techniques.</b> Also: substantial barrier and lack of cooperation between the city and the companies.</p>

CITY OF UTRECHT: vision and comments on the role of other administrative layers	
Provincial	<b>Role of the Province within City of Utrecht is rather low.</b> City has already a <b>relatively large budget</b> available and <b>operates independently</b> from Province.
National	<b>Flexibility required</b> in terms of time, type and extent of projects/demo's <b>does not necessarily match that well with national initiatives.</b> <b>Focus area platform</b> (a platform in which the different actors of the 'focus areas from Action plan air quality' are represented) is present but <b>lack of concrete decisions/actions</b> within platform. <b>More cooperation and guidance with/from national layer needs to be present</b> in local pilot projects as 'Proeftuinen'. (Not simply giving subsidies to project.) <b>National policies should contribute more to development of charging infrastructure.</b> National policy layer did not deliver additional national money for development infrastructure; it was up to local level.
EU	<b>Rigid conditions of Life+ subsidy framework and slow proposal review does not match with the local needs for flexibility.</b> This hampers <b>to react on new situations and opportunities</b> (required for early adopters' stage of innovation adaptation). Part of the subsidy was not approved for Utrecht. <b>EU-targets for air quality are strong driver for local governments to implement electric transport</b> (while for companies (U15) the CO <sub>2</sub> -performance ladder is the key driver)

**Table 2:** Provincial level (Province of Utrecht) interview summary. The first part of the table gives key issues regarding their own role towards fostering electromobility. The second part gives the vision of the Province on the role of the other administrative levels (i.e. local, national and EU).

PROVINCE OF UTRECHT: key issues regarding their own role	
Provincial	<b>Electromobility is not per se a priority</b> for the Province (at the start of 2014: 8 charging poles); <b>air quality is the overall driver for incentivising cleaner transport options.</b> <b>Cooperation with Metropole Region Amsterdam (MRA), for large scale roll-out of electromobility,</b> by means of a <b>public tender</b> of 400,000 euro for charging infrastructure in the Provinces Noord-Holland, Utrecht and Flevoland. It involves 10 municipalities. <b>Green Deal Sustainable Mobility does not comprise electromobility.</b>
PROVINCE OF UTRECHT: vision and comments on the role of other administrative layers	
Local	The Province is not much involved in fostering electromobility in the City of Utrecht. However, the Province does play a role in supporting about 10 other (smaller) cities within Province (see also statement 2 row below on MRA). <b>Cooperation with Metropole Region Amsterdam (MRA), for large scale roll-out of electromobility,</b> by means of a <b>public tender</b> of 400,000 euro for charging infrastructure in the Provinces Noord-Holland, Utrecht and Flevoland. It involves 10 municipalities. <b>Green Deal Sustainable Mobility does not comprise electromobility.</b>
National	<b>Province is waiting for Green Deal Charging Infrastructure,</b> also as a starting point for the plans with the MRA (see above). Signing was already scheduled for May 2013, but nothing yet. <b>Province indicates the need for additional financial support from national government for infrastructure.</b>
EU	Quite <b>challenging to meet the air quality targets set by the EU.</b>

**Table 3:** National level (as defined in Chap. 1) interview summary. The first part of the table gives key issues regarding their own role towards fostering electromobility. The second part gives the vision of the Province on the role of the other administrative levels (i.e. local, national and EU). Note that the Formule E-team (FET) is not an entirely national body, but for practical reasons included here in the table on the national level. All statements and visions related to FET listed below start with 'FET'.

<b>NATIONAL GOVERNMENT: key issues regarding their own role</b>	
<b>National</b>	<p>The national government is an enabler and <b>continuously needs to redefine its role</b> in reaction to the often changing circumstances.</p> <p><b>National fiscal policies have a large impact</b> on electromobility: f.e. boost of PHEV-purchase. Not always is desired effect achieved: PHEV-users do not (substantial) drive electric, but instead on diesel. MIA/Vamil makes charging poles possible. But long term stable fiscal policies are difficult to arrange, as the Ministry of Finance only plans two years ahead.</p> <p><b>Green Deal Charging Infrastructure is in preparation.</b> Generic supporting measure for charging infra, but challenging as cities often want substantial financial support from the national government.</p> <p><b>Living labs</b> have been set up to identify bottlenecks and facilitators; <b>'learning-by-doing' and contribute to innovation process.</b> "Failure" of some parts of the Living labs in the City of Utrecht can thus be perceived as 'lessons learnt' rather than as a failure as such. However, <b>continuation of Living labs is challenging:</b> not all business case are viable (yet).</p> <p>The ministries have limited staff and resources available implying that (local) electromobility initiatives also require support from other sources. <b>Formule E-team platform is an important actor for the acceleration of the electromobility roll-out.</b></p> <p><b>FET: There is a large gap (and tension) between actions and policy measures at local/regional and national level.</b> The challenge is: (how) to bridge this gap in order to facilitate the roll-out of electromobility?</p> <p><b>FET: Communication is crucial,</b> within each policy layer as well as between the policy layers</p> <p><b>FET: For roll-out of electromobility it is important to seek alternative approaches and to get people away from their traditional statements/visions.</b> (Focus on reducing expenditures, rather than requesting additional subsidies!)</p>
<b>NATIONAL GOVERNMENT: vision and comments on the role of other administrative layers</b>	
<b>Local</b>	<p>Local initiatives are starting point. Municipal investments are decisive moments and thus best opportunities for the national government to start support. Local market has to take up the roll-out of electromobility.</p> <p><b>Air quality is important driver for local initiatives and policies.</b></p> <p><b>Cooperation between local and national policy makers differs per city: sometimes a gap in communication</b></p> <p><b>FET: Create commitment at local level; involve commercial parties at local level and facilitate them in developing a viable business.</b></p> <p><b>FET: Environmental zones are likely an effective facilitator for rolling-out electric transport.</b></p>
<b>Provincial</b>	<p><b>Role of provinces is rather limited.</b> However, there are regional focus areas, such as the Metropole Region Amsterdam (MRA), that are starting up regional plans for electromobility.</p> <p><b>FET: Focus areas are important for roll-out of electromobility. However, facilitating electromobility in focus areas is not always efficiently organized yet,</b> while national support in these areas is sometimes too limited.</p>
<b>EU</b>	<p><b>Role of EU in fostering electromobility is not yet that large. However, the directive on the deployment of alternative fuels infrastructure is being developed. Note that NL does not want a binding target for charging poles</b> since as long as the targets are not yet met this may trigger commercial parties to require governmental subsidies.</p>

**Table 4:** European level interview summary. The first part of the table gives key issues regarding their own role towards fostering electromobility. The second part gives the vision of the European Commission on the role of the other administrative levels (i.e. local, provincial and national/member state).

EUROPEAN COMMISSION: key issues regarding their own role	
EU	<p>The European Commission tries <b>to avoid fragmentation among member states</b>: help/trigger research; guide innovations to market; stimulate the exchange of knowledge/competencies; increase visibility and transferability of electromobility via demonstration projects.</p> <p>The European Commission tries <b>to break chicken/egg problem of electromobility</b>: by developing the directive for alternative fuel infrastructure for member states (among others targeting roll-out of charging points). Aim to stimulate/facilitate an <b>overall EU-roll out strategy and approach for electromobility</b>.</p>
EUROPEAN COMMISSION: vision and comments on the role of other administrative layers	
Local	<p>(Direct) EU influence on the local level is rather limited.</p> <p><b>Flexibility is required</b> at local level. Still, local level has to operate within framework of rules; for example regarding a Life+-subsidy. The recent <b>H2020 programme<sup>1</sup> offers more local flexibility</b>: bottom-up approach and possibility 'to do what you want'. Civitas programme<sup>2</sup>: timeline is fixed, but there was a lot of flexibility within cities.</p> <p>Local policies should not only focus on investing in infrastructure, but <b>connect to local industries/companies</b>.</p> <p>Local policy makers may use local funds but need to aim for <b>maximal private investment</b></p> <p><b>Local policy makers need to be creative</b> and look towards alternative business models.</p> <p><b>Low emission zones</b> at local level should be <b>harmonized among Europe</b>; it is confusing when vehicle emission-based restriction differs per city.</p>
Provincial	<b>Regional coordination</b> within member states is important for roll-out of electromobility.
National	<p>EU Directive on the deployment of alternative fuel infrastructure should give rise to <b>national plans: integrated approach as incentive for local measures/actions</b> (roll-out of vehicles should be guiding).</p> <p>National policy layer should <b>provide incentives such as tax benefits or subsidies</b>. Furthermore, it is important to try to <b>set-up a regional fund for sustainable mobility</b></p> <p>National government should also <b>keep in mind the overall EU-approach for rolling-out electromobility</b>. Remarkably both Germany and the Netherlands are against binding targets for charging points numbers in the upcoming EU-Directive (see below).</p>

1 <http://ec.europa.eu/programmes/horizon2020>

2 [www.civitas.eu](http://www.civitas.eu)

# 5

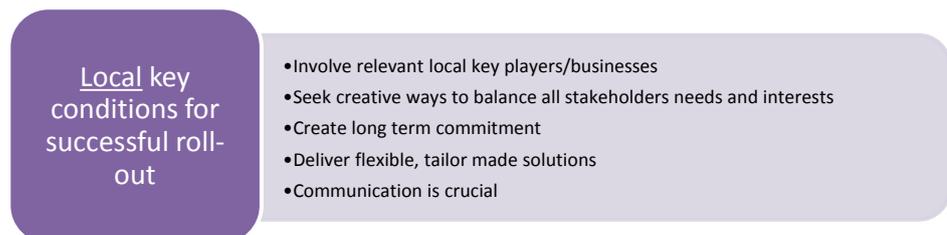
## Discussion & conclusions

Several observations can be extracted. Section 5.1 illustrates the key findings of this initial scan, and discusses the main similarities and differences of the policy maker at the different administrative levels. Starting point of this discussion is the local viewpoint, the other policy layers are as much as possible discussed with respect to the local layer. Section 5.2 briefly discusses possible next steps towards better aligned (future electromobility) policies.

### 5.1 Discussion of key findings

#### What key issues are locally needed?

First of all, the **roll-out of electromobility has to take place at the local level and local key players are crucial**, which is a common finding among the four different policy layers. According to the local actor, the main conditions for successful roll-out are given in the figure below:



Although these key conditions have to be present at local level, policy measures at the other administrative levels might be required or can contribute to the roll-out of electromobility. Main outcomes from the interviews show the results below.

#### How does the province contribute to local roll-out?

Policy measures from the **provincial level** play a minor role for the city of Utrecht; the city operates more or less independently from the province. Nevertheless, for smaller cities, the province might play a facilitating role. Furthermore, both national and EU policy makers mention the importance of the *regional scale* for electromobility roll-out.

For the province of Utrecht this is currently observed in their involvement in the Metropole Region Amsterdam (MRA).

- Minor role/less relevant for city of Utrecht; only for smaller cities
- National/EU policy makers: (regional) focus areas important for future roll-out?

Province

### Role and policies at national level

At the **national level** several incentives have been initiated in order to develop and speed up the market implementation of electromobility. The national layer wants the Netherlands to become a frontrunner on electromobility. However, policy makers at the national level are still trying different approaches to reach this goal. Sometimes measures are successful in themselves, but the achieved effect is lower than expected (such as for PHEV-fiscal advantages, where consumers drive a less than expected number of electric kilometres with their PHEV). Although flexible measures are required for the local level, the national policy maker aims to provide a long term and stable policy for electromobility. In addition, some clear different viewpoints on several measures were observed in the various interviews:

Good example is the programme of **Living Labs** in which the local **policy maker** mentions that - regarding the situation in the city of Utrecht - these Labs came too early and that more guidance/cooperation with/from national layer would have been preferred. **National policy makers** mention that it was meant to be a pilot project and up to local partners to contribute to development. Furthermore, it was mentioned to develop the technology, so 'learning-by-doing' (and inevitably finding failures).

Furthermore, a policy measure which was explicitly addressed in most of the interviews, is the **Green Deal Charging Infrastructure**, which is currently being developed. The **local and provincial level** mention that the Green Deal (and additional finance - at least to some extent from the national government) is required to develop required charging infrastructure. The national policy level mentions that the market has to take up the establishment of the charging infrastructure and that the national level is not able to fully deliver the financial demand of local/provincial governments.

In addition, it was observed that policy makers have different viewpoints on the operation of the Focus Area Platform. Although the national actor mentions that this is an important platform to improve cooperation and communication between various local policy makers, according to the local actor the true effectiveness of this platform is rather low.

National

- Facilitate and provide stable, long term policies
- Living labs: promote innovation or immediate success?
- Green Deal Charging Infrastructure: local and provincial policy makers are awaiting national action and financial contribution?
- Platform Focus area is present, but is it effective or not?

### Role of Formule E-team

In the final stage of the interview sessions, an interview was held with the president of the Formule E-team (FET). As we are speaking about the gap between the different

layers, this FET may contribute to bridging the gap between and within the different levels. An important aspect is that discussions should not only focus on financial support, but to look for 'out-of-the-box'-solutions for the roll-out of electromobility.

#### **Influence of European policies on roll-out electromobility**

At **EU-level** air quality targets turn out to be an important driver for both local, provincial and national policies for the roll-out of electromobility. In contrast, according to local policy makers, the EU-subsidy programmes are not always in line with the required flexibility at local level. The long decision time of EU-subsidy frameworks and rigid conditions causes inability to react on new situations and opportunities. According to the local actor, the Life+ subsidy could not be used/did not have the effect it could have on Utrecht Electric. It is observed that the EU has a different perspective on its role and furthermore adds that H2020 already delivers more flexibility at the local level.

Furthermore, an important way in which the EU might play a role in the roll-out of electromobility is the development of the Directive on the deployment of alternative fuel infrastructure. However, also different viewpoints have been observed in member states to this Directive. The EU-level mentions that the member states should consider also the required EU-wide approach for development of charging infrastructure. However, the Dutch national government does not want a target for charging poles. Reason for this is that the market will ask the government for subsidies if they know that the government needs them to reach the required target.

- Air quality targets are important driver for electromobility
- "Rigid" subsidy programmes versus local flexibility?
- Directive on Alternative fuel infrastructure: (un)desired?

EU

It should be noted that as this study only covers an initial scan and only a brief, general analysis has been performed, important aspects for future (more detailed) investigation remain.

## 5.2 Possible next steps

This initial scan is a first exploration of the alignment of policy measures that foster the roll-out of electromobility. These initial results can serve as a starting point towards better aligned (future electromobility) policies. Logical next steps include:

#### **Representativeness for other cities**

The results of this initial scan are based on the city of Utrecht. Before drawing general conclusions, it is important to verify whether the situation of Utrecht is representative for other cities in the Netherlands, especially the G4: Amsterdam, Rotterdam, and The Hague.

#### **Workshop**

This initial scan indicates that the visions of the various administrative layers differ on several key points. To this end, a workshop with all stakeholders involved, would allow

for better understanding of each other's viewpoints and underlying drivers. This could be the starting point for improved alignment of policies at the various administrative levels, resulting in more effective electromobility roll-out.

# References

- Agentschap NL, 2010 – *Proeftuinprojecten Hybride en Elektrisch rijden*  
<http://www.agentschapnl.nl/onderwerpen/duurzaam-ondernemen/energie-en-milieu-innovaties/elektrisch-rijden/praktijkvoorbeelden/proeftuinprojecten>
- Agentschap NL, 2012 – *Elektrisch vervoer in Nederland. Highlights 2012.*  
<http://www.agentschapnl.nl/sites/default/files/Elektrisch%20vervoer%20in%20Nederland%20Highlights%202012.pdf>
- Agentschap NL, 2013 – *Innovatievouchers Elektrische Mobiliteit*; 2013, Agency NL.  
<http://www.agentschapnl.nl/subsidies-regelingen/innovatievouchers-elektrische-mobiliteit>
- ALU, 2009 – *Actieplan Luchtkwaliteit Utrecht. Schone lucht, bereikbare stad en duurzame groei.* Gemeente Utrecht, December 2009.  
[http://www.utrecht.nl/images/DSO/Utrechtselucht/actieplan\\_luchtkwaliteit.pdf](http://www.utrecht.nl/images/DSO/Utrechtselucht/actieplan_luchtkwaliteit.pdf)
- Auto en Fiscus, 2013 – *Elektrische auto.* July 2013;  
<http://www.autoenfiscus.nl/elektrische-auto.html>
- EEA (2010): Technical report. NEC Directive status report 2009. Reporting by the Member States under Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 *on national emission ceilings for certain atmospheric pollutants*. No 10/2010. ISSN 1725-2237.
- EEA (2013) A closer look at urban transport TERM 2013: transport indicators tracking progress towards environmental targets in Europe. Report No 11/2013, ISSN 1725-9177
- EC, 2008 - *DIRECTIVE 2008/50/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 May 2008 on ambient air quality and cleaner air for Europe*; May 2008; Brussels. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:152:0043:0043:EN:PDF>
- EC, 2011; *White paper. Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*; Brussels, 28 March 2011; COM(2011)144 final

- EC, 2013 – *Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the deployment of alternative fuels infrastructure*; January 2013; Brussels; COM(2013) 18 final;
- Gemeente Utrecht, 2010 – *Actieplan Schoon Vervoer 2010-2014*. Gemeente Utrecht, 2010.  
[http://www.utrecht.nl/images/DSO/Infraprojecten/utrechtelktrisch/Definitieve versie Actieplan Schoon Vervoer.pdf](http://www.utrecht.nl/images/DSO/Infraprojecten/utrechtelktrisch/Definitieve%20versie%20Actieplan%20Schoon%20Vervoer.pdf)
- NSL, 2009 – *Nationaal Samenwerkingsprogramma Luchtkwaliteit*; November 2009;  
<http://www.rijksoverheid.nl/documenten-en-publicaties/brochures/2011/01/03/nationaal-samenwerkingsprogramma-luchtkwaliteit.html>
- Ondernemend Groen, 2012a – *Green Deal Utrechtse Energie B-126*; 2012  
[http://www.ondernemendgroen.nl/greendeals/Pages/Green\\_Deal\\_Utrechtse\\_Energie\\_110.aspx?source=%2fPages%2fZoek.aspx%3fk%3dutrecht%2benergie](http://www.ondernemendgroen.nl/greendeals/Pages/Green_Deal_Utrechtse_Energie_110.aspx?source=%2fPages%2fZoek.aspx%3fk%3dutrecht%2benergie)
- Ondernemend Groen, 2012b – *Green Deal Duurzame Mobiliteit Provincie Utrecht B-135*; 2012  
<http://www.ondernemendgroen.nl/SiteCollectionDocuments/OndernemendGroen/B135%20-%20Green%20Deal%20Duurzame%20Mobiliteit%20Provincie%20Utrecht.pdf>
- Rijksoverheid, 2010 – *Proeftuinen hybride en elektrisch rijden bekend*; Rijksoverheid; Nieuwsbericht 3 mei 2010;  
<http://www.rijksoverheid.nl/nieuws/2010/05/03/proeftuine.html>
- Ros en Van Essen, 2014. *Mobiliteit en transport in een CO<sub>2</sub>-arm systeem*. Pp 111-120. Hoofdstuk in de 'De doorbraak van duurzaam – van niche naar mainstream' Essaybundel ter gelegenheid van het 40-jarig jubileum van de Bezinningsgroep Energie.

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