



# Measures to reduce emissions of the national automotive fleet

December 14, 2016



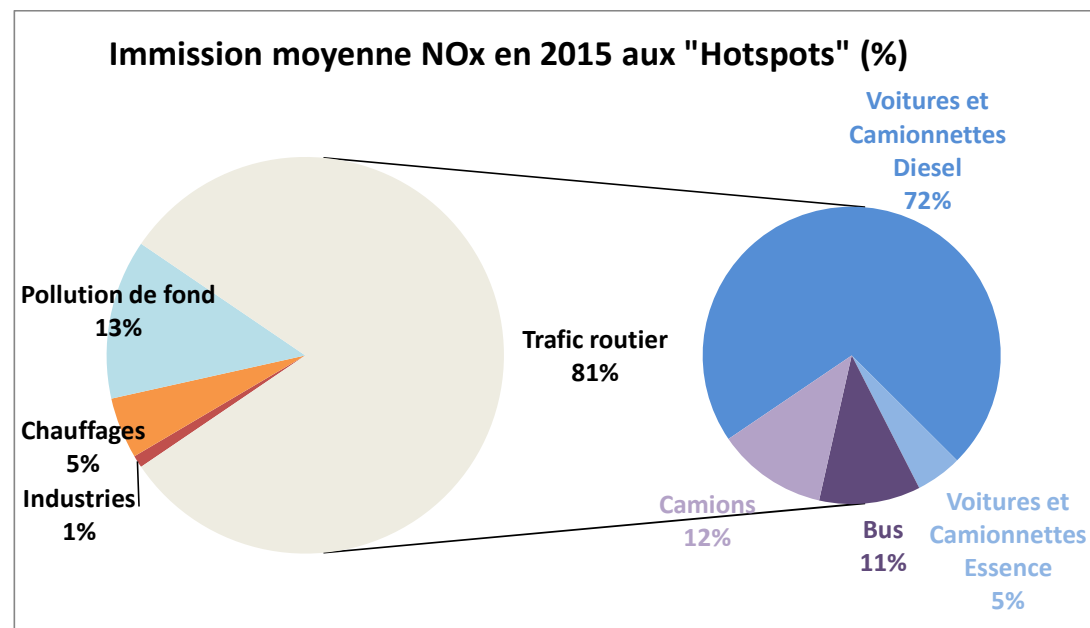
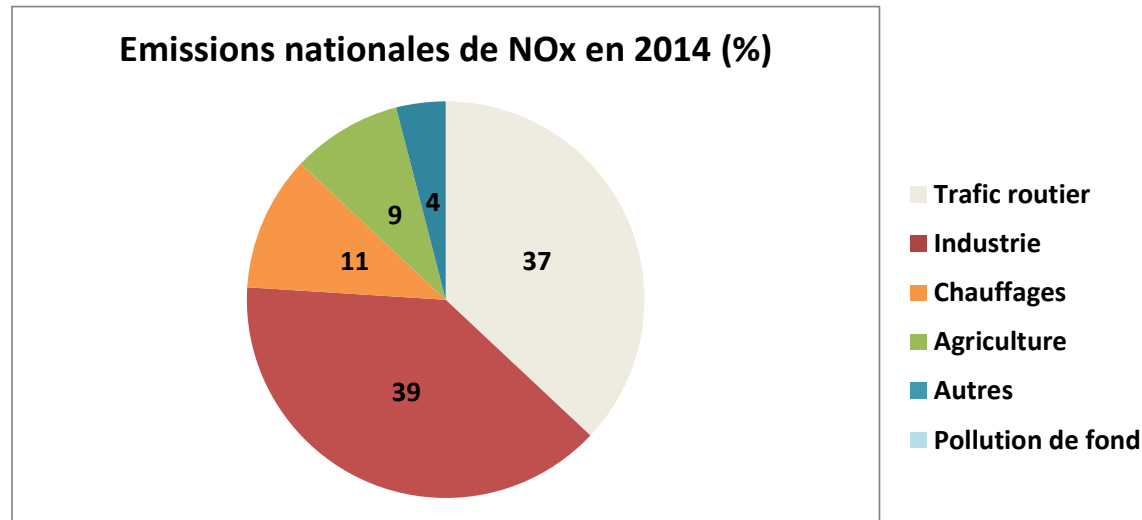
LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère du Développement durable  
et des Infrastructures

Administration de l'environnement



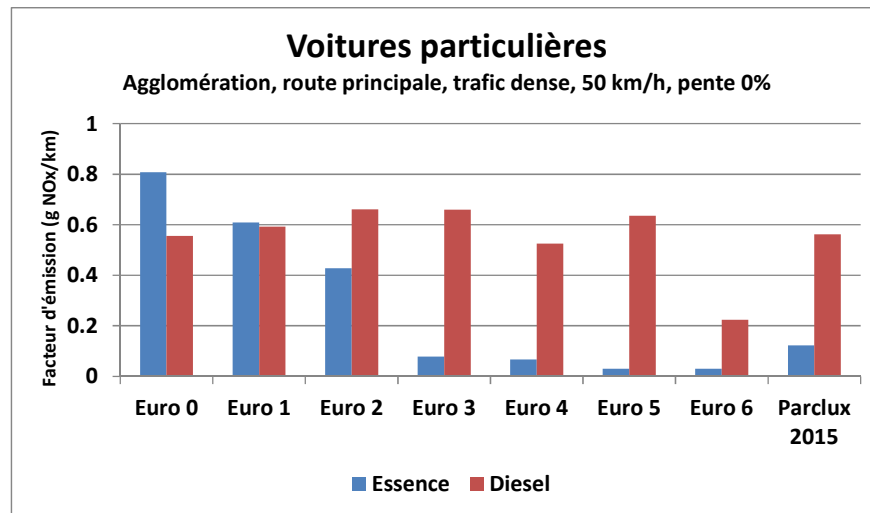
- Emission sources (NO<sub>x</sub>)
- New Fiscal incentives
- Electro-mobility

# Emission by source (NO<sub>x</sub>)



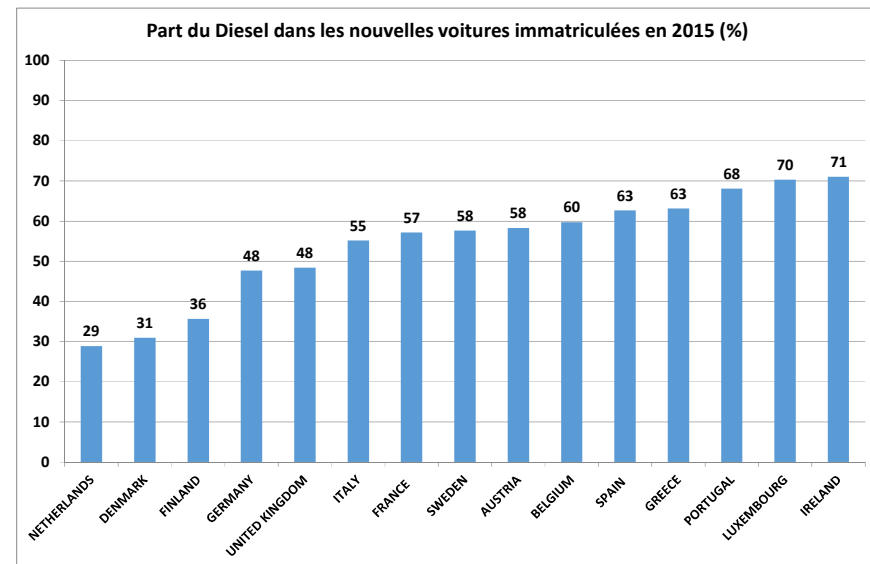


## Euro standards for diesel cars are less severe



Source: Handbook Emission Factors for Road Transport (HBEFA) v.3.2 (2014), SNCT (2015), Komobile/iVT-TUGraz (12/2014)

## High level of Diesel cars in national fleet



Source: Association Auxiliaire de l'Automobile (AAA)

- Share of annually new registered leasing cars is about 50% of total registrations in Luxembourg



## Incentives for the purchase of low-emission cars

Tax reform 2017



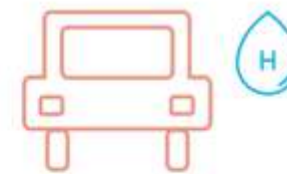
## Tax reform 2017

- Introduction of a tax allowance for **zero-emission private cars**



Électrique

5.000 €



Hydrogène



vélo

300 €



Pedelecs



## Tax reform 2017

- Change in benefits in kind based on **CO<sub>2</sub>** emissions
- **Penalisation of Diesel cars (+ 0.2%) compared to petrol engines**



### Leasing

Catégories d'émissions de CO <sub>2</sub>	Situation actuelle	Réforme			Nouveauté
	Toutes catégories d'émissions de CO <sub>2</sub> et motorisations confondues	Pourcentage de la valeur du véhicule (neuf TVA comprise)/véhicules de la catégorie M1			Pourcentage de la valeur du vélo ou pederlec
		Véhicule avec motorisation Essence (seul ou hybride) ou avec motorisation au gaz naturel comprimé (GNC)	Véhicule avec motorisation Diesel (seul ou hybride)	Véhicules 100% électriques ou avec motorisation au hydrogène	Cycle au sens du Code de la route (vélo ou pederlec)
0 g/km	1,5			0,5	0,5
>0-50 g/km	1,5	0,8	1,0		
>50-110 g/km	1,5	1,0	1,2		
>110-150 g/km	1,5	1,3	1,5		
> 150 g/km	1,5	1,7	1,8		

Facteur de +0,2% pour véhicules avec motorisation Diesel avec un taux maximal de 1,8%.



## Calculation of the benefit in kind

- The taxable monthly benefit in kind is calculated on the purchase price of the car
- From 1 January 2017 it varies between 0.5% and 1.8%

	Purchase price	%	Monthly taxable benefit in kind
Diesel car >150 g CO <sub>2</sub> /km	30 000,00 €	1,8	540,00 €
Electric car 0 g CO <sub>2</sub> /km	30 000,00 €	0,5	150,00 €
Additional taxable amount for diesel car (1 year)	6 480,00 €		
Additional taxable amount for electric car (1 year)	1 800,00 €		





# Public infrastructure for electric mobility

Installation of 800 charging  
stations by 2020



# Public charging infrastructure



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## Installation of 800 charging stations by 2020

- Financing and installation is done by the electricity network operators (legal obligation)



- Each station is fitted with 2 charging points  
-> 1.600 charging points in total

- Socket « Type 2 » (EN 62196)



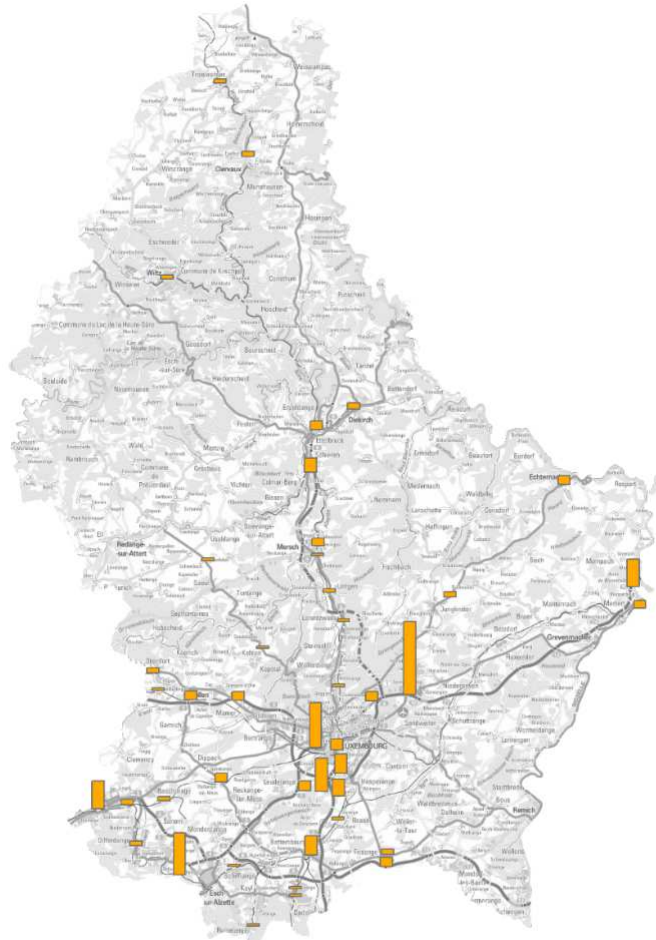
- Accelerated charging speed (3,7 – 22 kW)

- Common payment system independent of operator

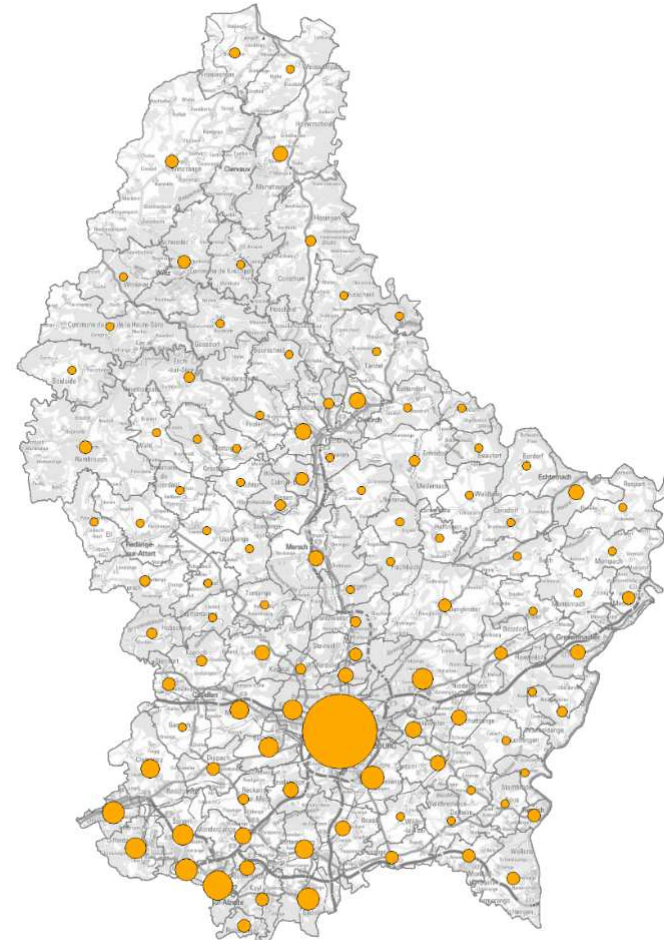
- « eRoaming » function



# Public charging infrastructure



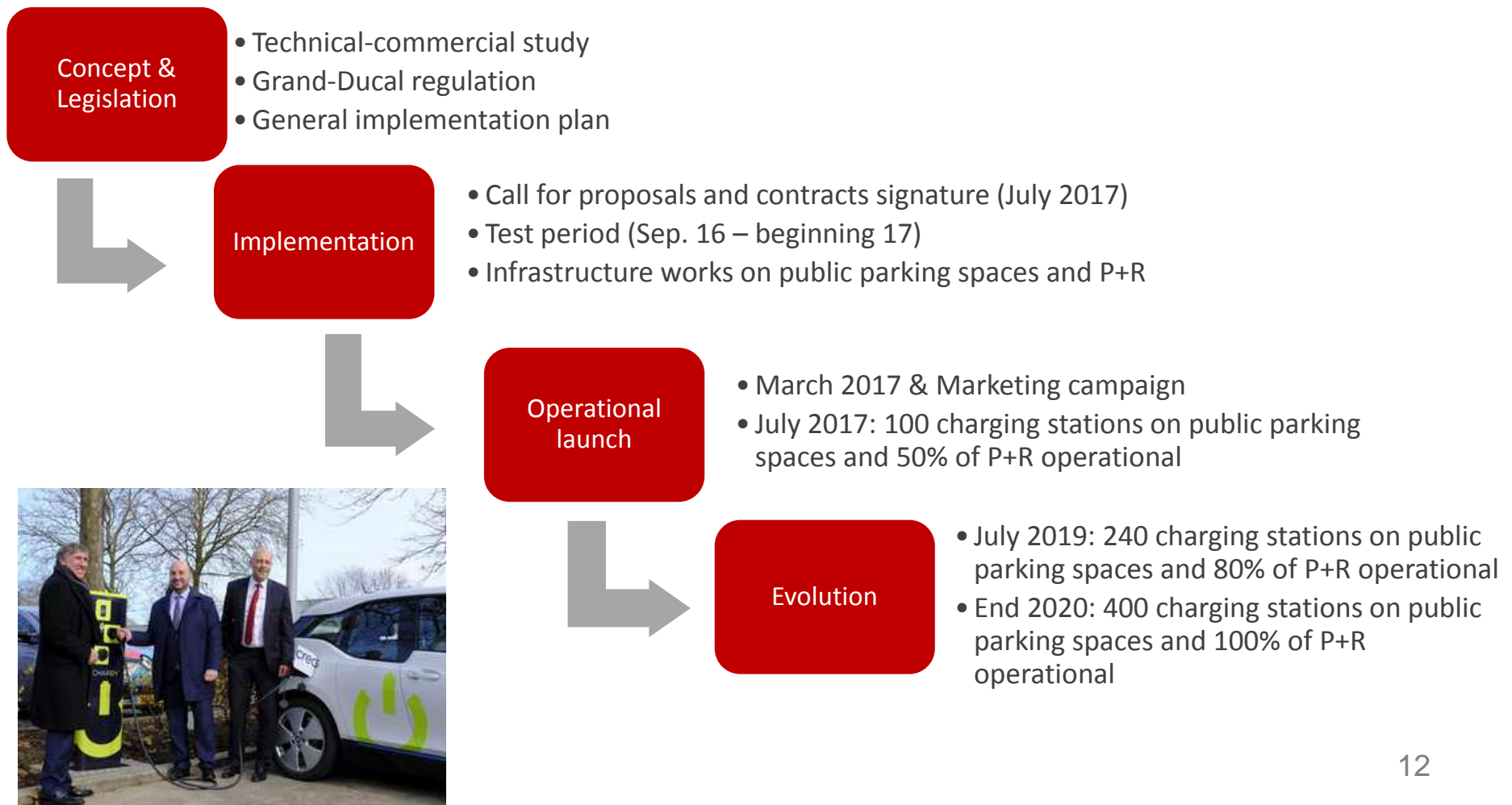
400 charging stations at  
**P&R parking** until 2020



400 charging stations at  
**public parking spaces** until  
2020



## Project timeframe:





- Continuous evaluation of measures put in place.
- Adaptation, if expectations are not met.