



Air quality in Luxembourg: assessment, plans and programs

Environmental Implementation Review
Country Dialogue Luxembourg
MDDI, 12 October 2017

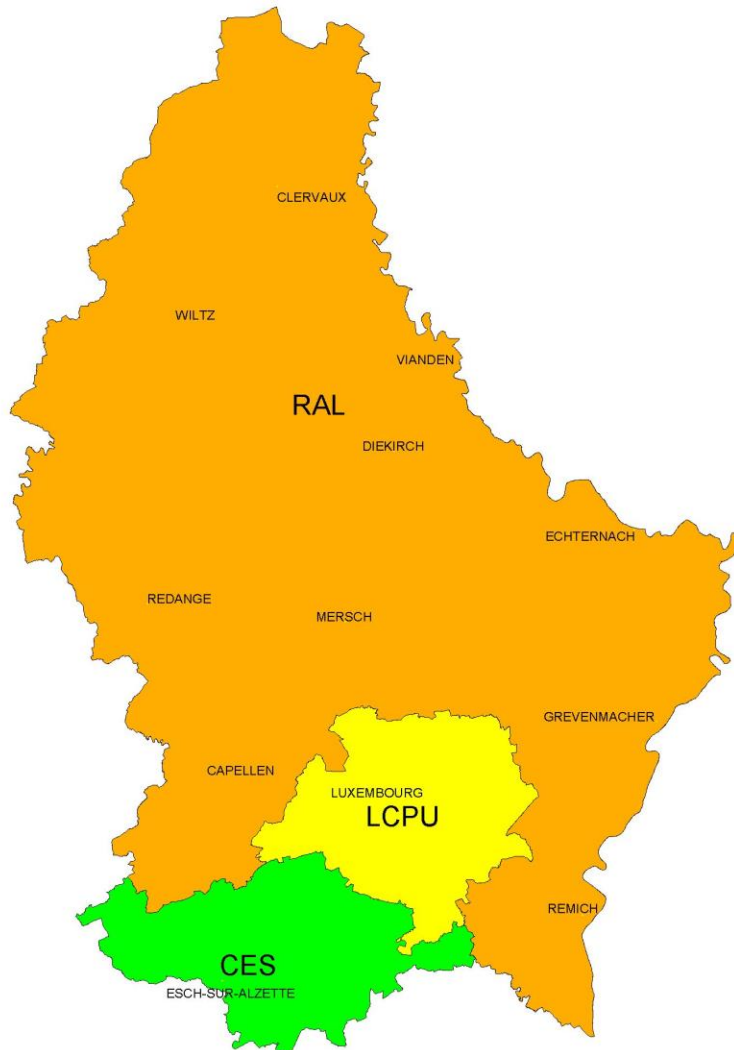


LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère du Développement durable
et des Infrastructures

Administration de l'environnement



- Air quality measurements - telemetric network in Luxembourg
- Air quality plan for Luxembourg-city
- Guidance measurements of air quality at national level
- National air quality program
- National Air Pollution Control Program



Rural Area of Luxembourg (RAL)

Population: 239'000

Measurement stations in

- Vianden (Rural background)
- Beckerich (Rural influenced by traffic)
- Beidweiler (Rural background)

Luxembourg-city and his Peri-Urban area (LCPU)

Population: 179'000

Measurement stations in

- Walferdange (Sub-urban background)
- Luxembourg-Churchill (Urban influenced by traffic)
- Luxembourg-Liberté (Traffic urban)
- Luxembourg-Bonnevoie (Urban)

Canton of Esch (CES)

Population: 173'000

Measurement station in

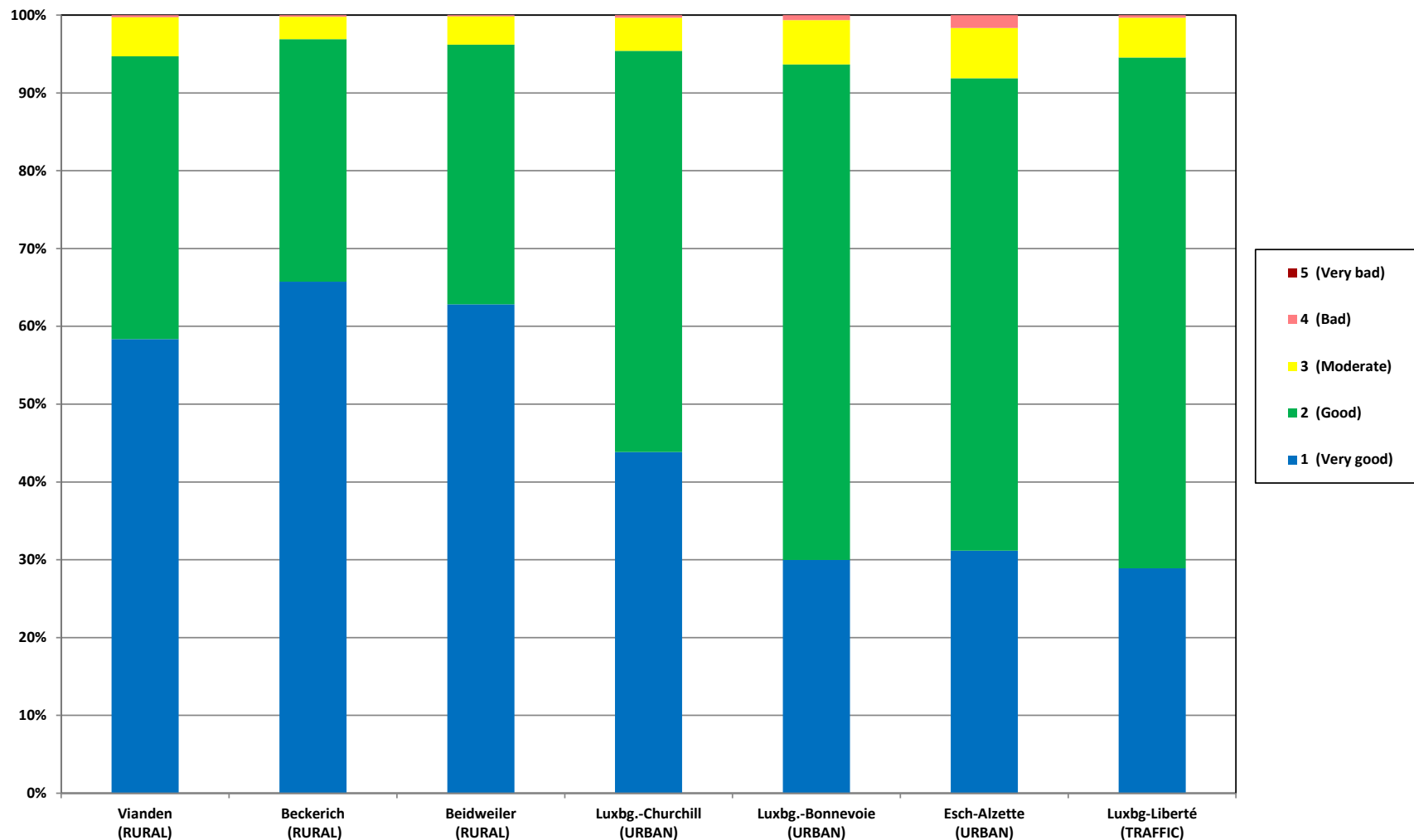
- Esch/Alzette (Urban background influenced by industry)

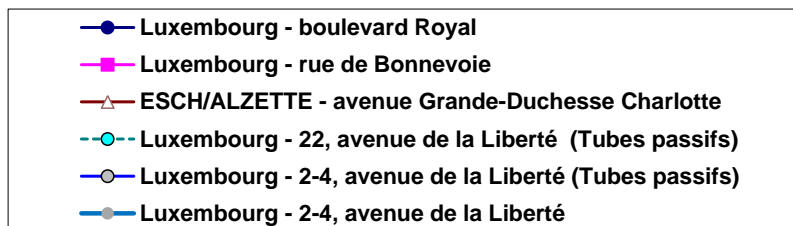
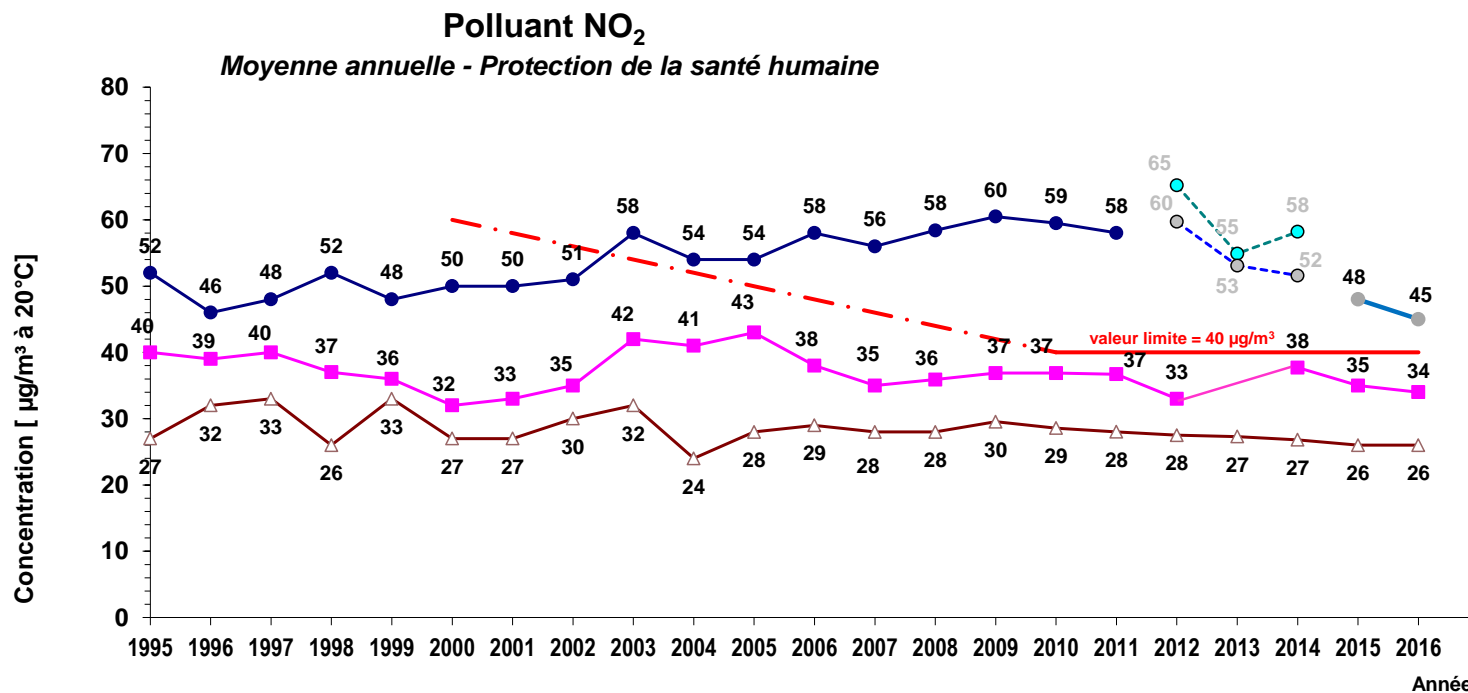
Grand-Duchy of Luxembourg

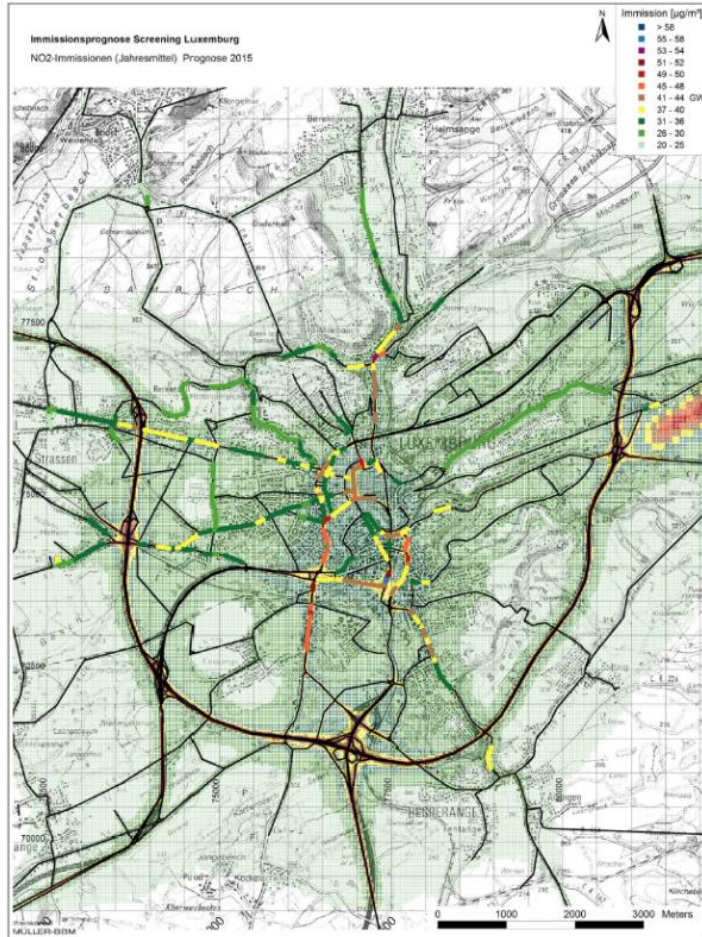
Population: 591'000



EU Air Quality Index (hours in 2016)







- Exceedance of NO₂ limit value (traffic station)
 - annual mean in 2010: 59 µg/m³
 - annual mean in 2016: 45 µg/m³
- Air quality plan (actualised in 2011)
 - main measures:
 - improvement of public transport
 - tramway (operation will start end of 2017)
 - additional measures:
 - acceleration of bus fleet modernisation



Promotion of public transport

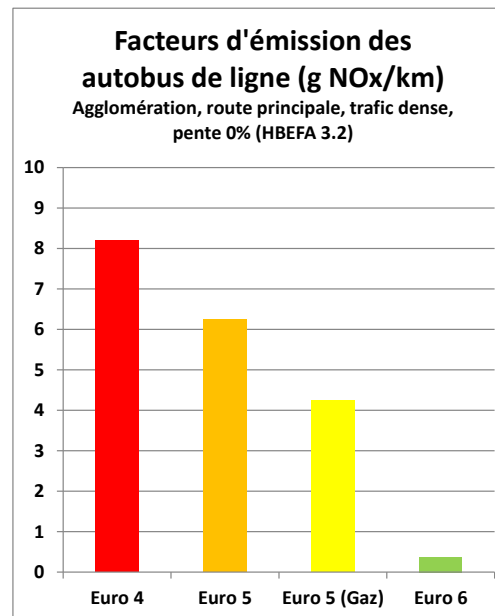
➤ MODU Strategy

- Tram, optimisation of trains and busses
- Avoiding 1975 regional bus passages in the city center per day

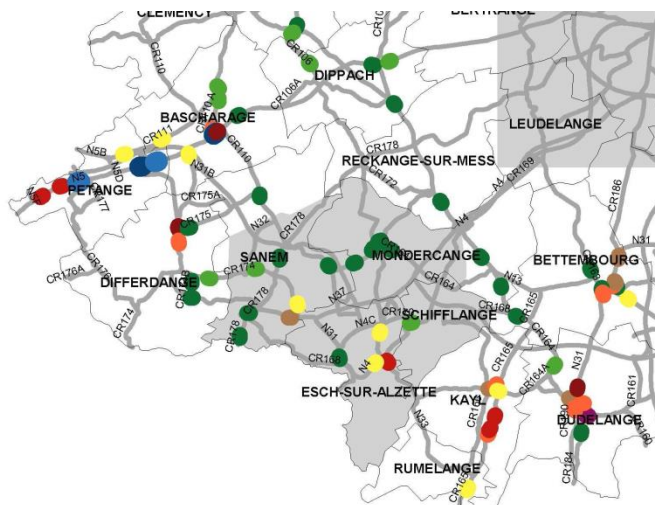
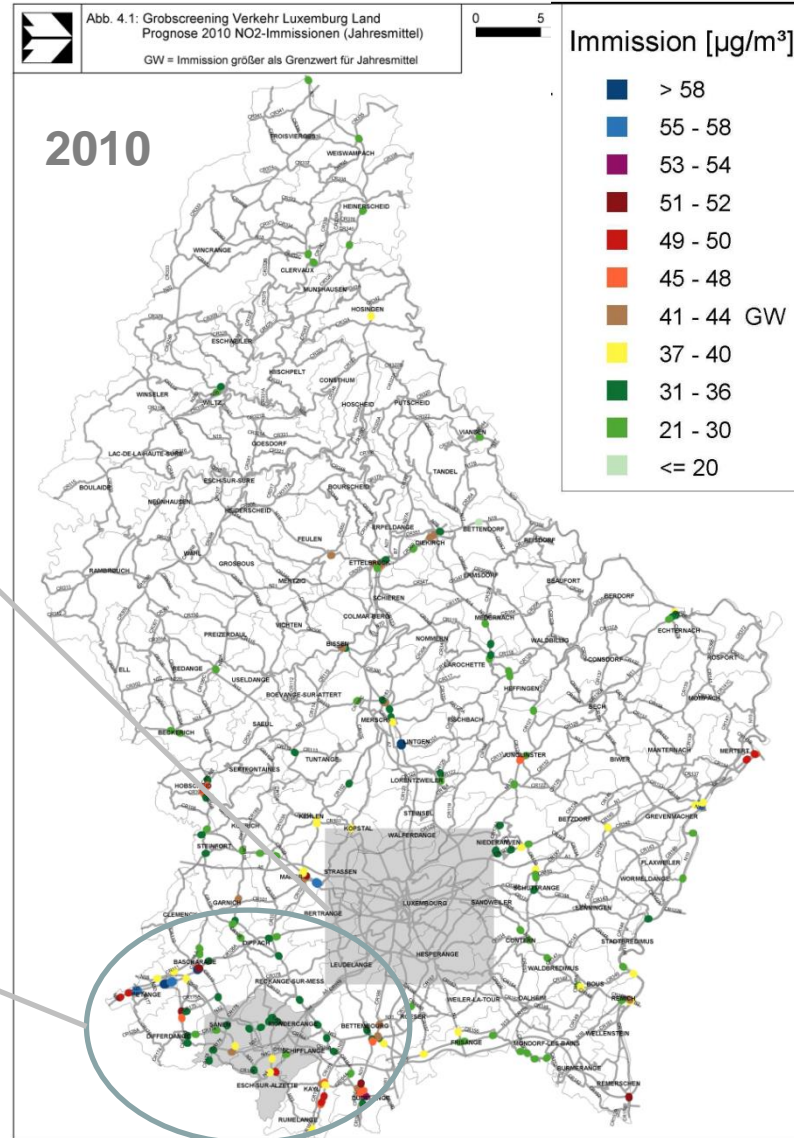
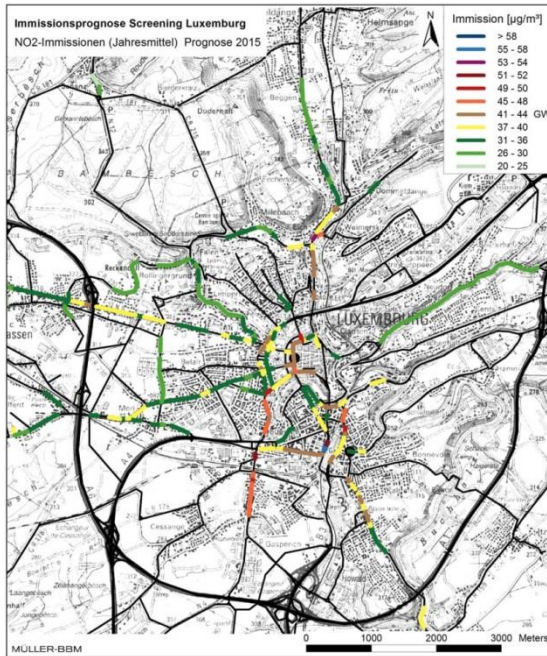


➤ Accelerated modernisation of the bus fleet

- Euro 6 Standard for diesel busses
- Busses with gas propulsion system (norme Euro 6)
- Electric hybrid busses

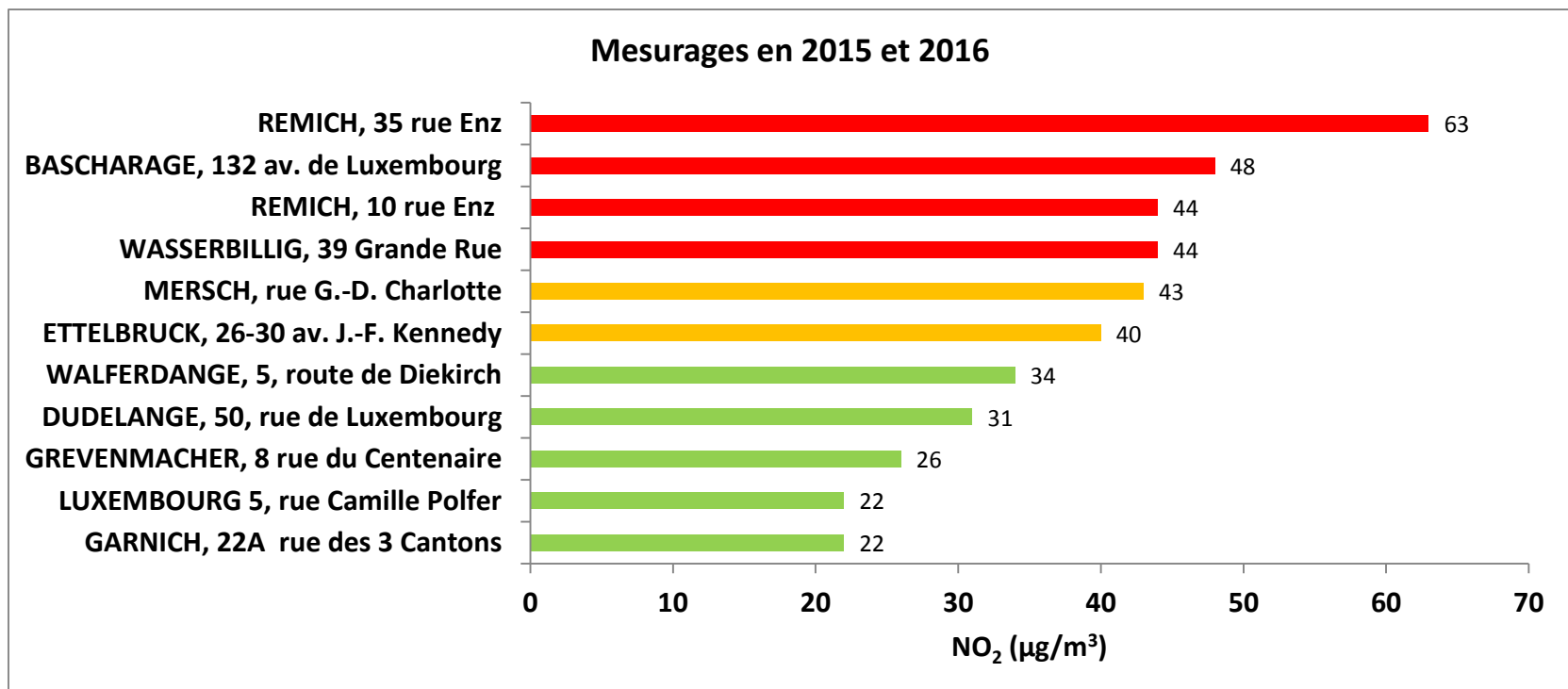


Air quality modelling at national level





Annual mean in 2015 and/or 2016 (Passive samplers)





- Measures at the European level
 - Real driving emission test procedure for passenger cars

- Proactive measures at national and local level
 1. Traffic prevention
 2. Promotion of « clean » public transportation
 3. Promotion of electric mobility
 4. Traffic fluidisation
 5. Aeration aspects to consider at municipal level
 6. Prevention of organic waste burning
 7. Information and awareness rising

The program was adopted end of June 2017



Information and awareness raising

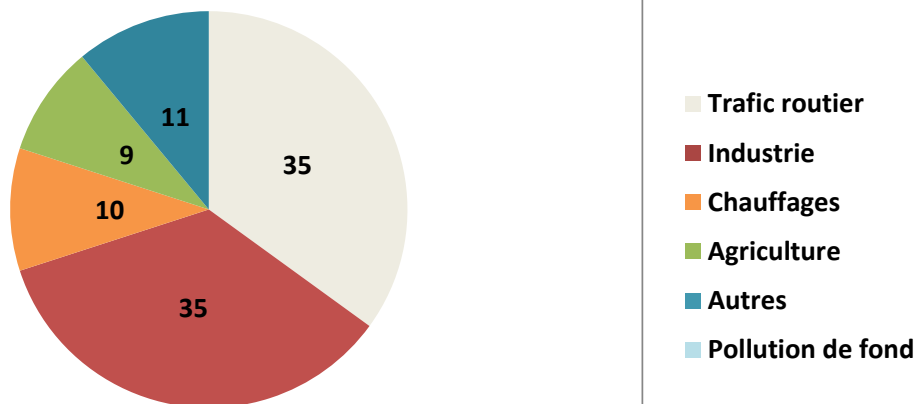
- Implication of municipalities by including air quality aspects in the well established energy award system
- Awareness raising and giving incentive for projects improving air quality
- Joint measurement campaigns with municipalities and the Environment Agency

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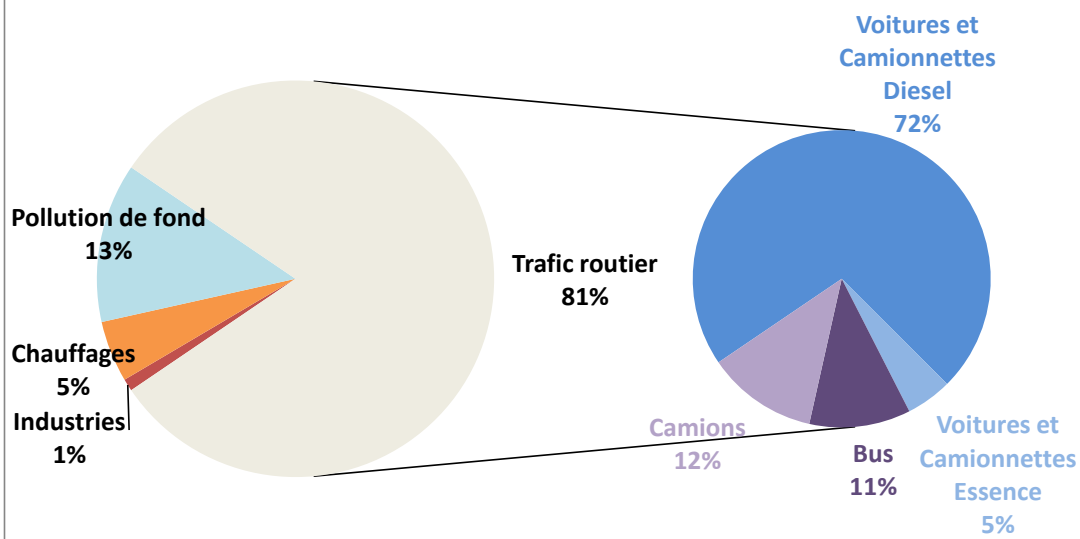




Emissions nationales de NO_x en 2015 (%)



Immission moyenne NO_x en 2015 aux "Hotspots" (%)





Cleaner individual motorised traffic

➤ New fiscal measures

- Abatement for zero emission vehicles for private consumers
- Depreciation levels for lying cars promoting zero emission and low emission cars and penalising diesel cars
- New abatement (2500€) for plug in hybrid vehicles with low emissions for private consumers
- New tax bonification for companies investing in zero emission or hydrogen fuel cell cars



➤ Infrastructure measures

- Installation of 1600 public charging stations for electric vehicles until 2020





Development of a National Air Pollution Control Programme by April 1, 2019 according to the directive 2016/2284/CE.

Main elements of the control programme

- Approach to achieve the objectives by 2020 and 2030
- Program identifies measures to achieve the emission objectives
- Collaboration and exchange with the involved sectors and stakeholders.

Main challenges:

- NOX emissions : Transport
- NH3 emissions: Agriculture
- PM2.5: Residential combustion



Thank you for your attention