

# Transport Infrastructure in Luxembourg: Major Projects and Investments

Presentation of the Luxembourgish investment plan  
to improve mobility and infrastructure across borders

Exposé at **European Politics in  
Transport & Logistics Conference on  
transport and mobility**

march 8 2019 - Roland Fox - Directeur des Ponts & Chaussées

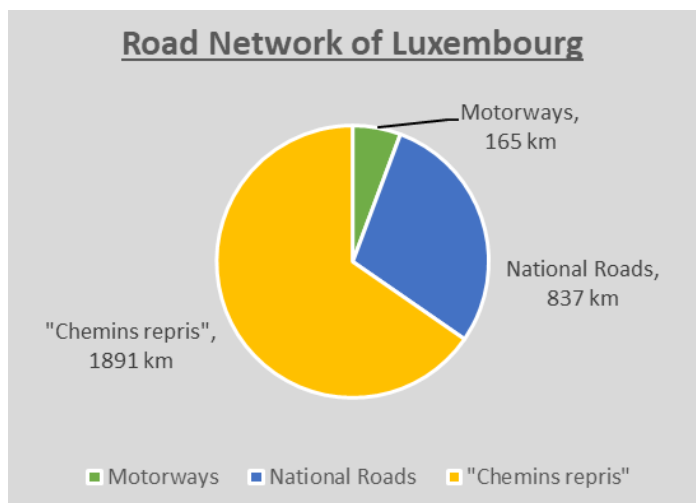


LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de la Mobilité  
et des Travaux publics

Administration des ponts et chaussées

Luxembourg's National Road Administration is a public entity placed under the authority of the ministerial department of public works and the Minister of Mobility and Public Works, Mr François Bausch

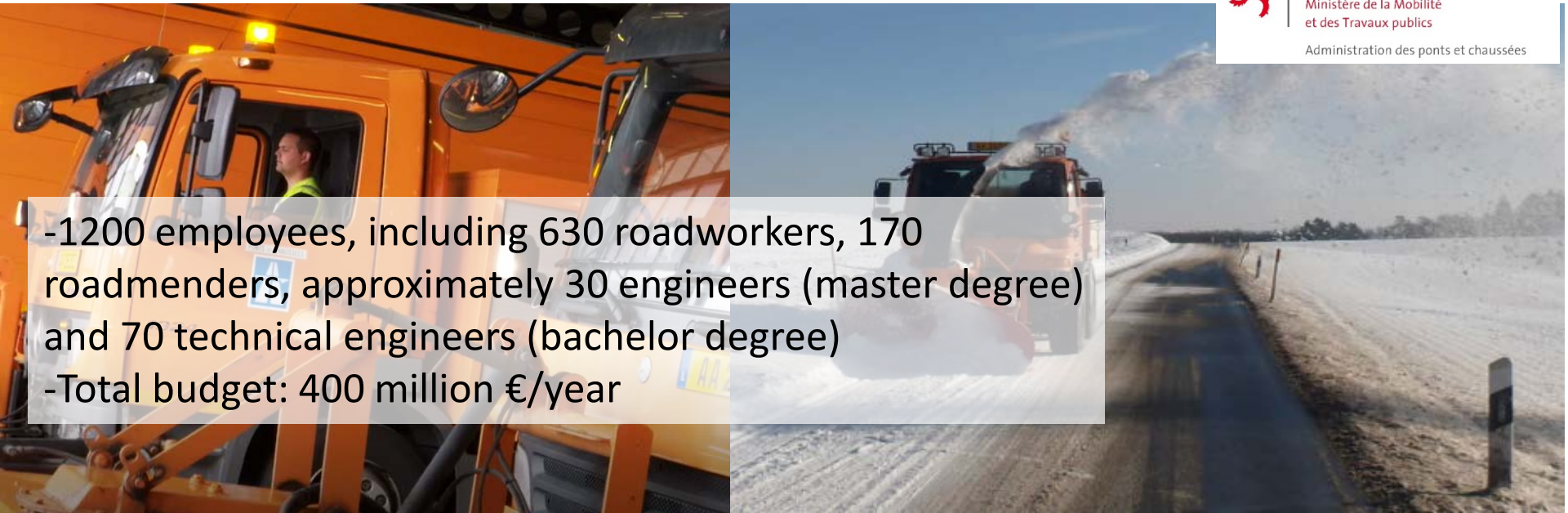
... is responsible for the public road network (approximately **2'900 km** of major road networks, national roads and "Chemins repris"),




the **cycle path network**, with **600 completed km** and 500 km being planned , 1200 bridges, viaducts and tunnels as part of the road network, the infrastructures for the transports on the navigable channel, the harbor and the airport, the dams in Esch-sur-Sûre and Rosport.

Ponts et Chaussées is in charge of the bus lanes (46 km completed, 40 km planned), the multimodal hubs and park and ride platforms. Currently there are approximately 10'000 parking slots in the planning stage.



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- 1200 employees, including 630 roadworkers, 170 roadmenders, approximately 30 engineers (master degree) and 70 technical engineers (bachelor degree)
  - Total budget: 400 million €/year

- 
- THE “engineer” administration  
11 divisions, 2 districts, new works, engineering structures, traffic management, sustainable mobility, geology, photogrammetry, IT management, laboratories for materials testing and research
  - 11 regional services, electromechanical service, airport service....

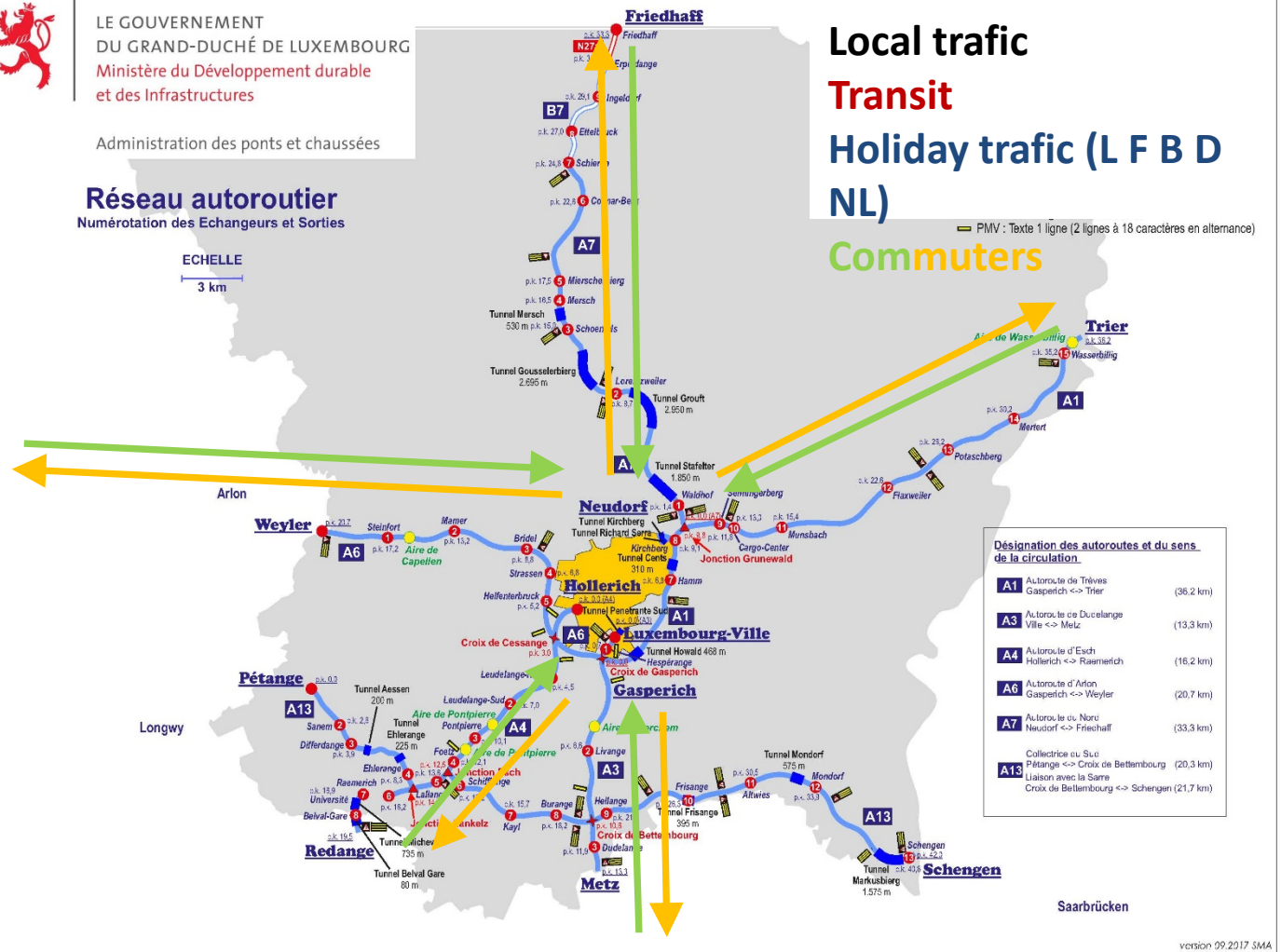


# Big Challenges



## Réseau autoroutier Numérotation des Echangeurs et Sorties

ECHELLE  
3 km

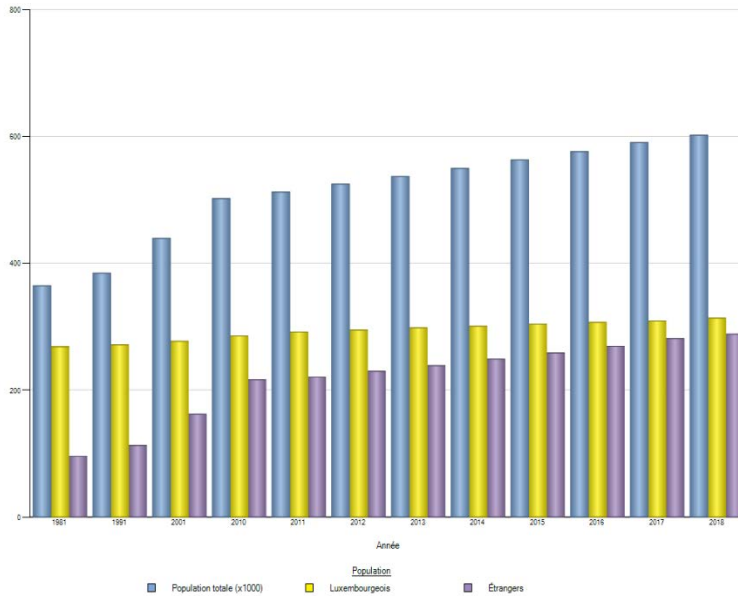


Local traffic  
Transit  
Holiday traffic (L F B D NL)  
Commuters



## Challenges for mobility

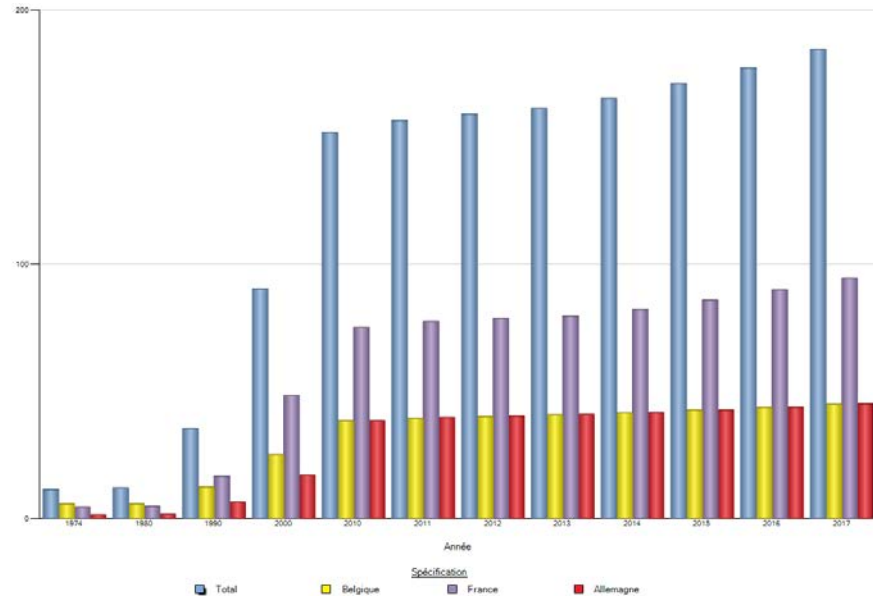
Rapidly growing population  
(D,B,F)



2000: 439.000 inhabitants  
2018: 602.000 inhabitants

Increase: 37%

Steadily growing numbers of incoming commuters



2000: 87.000 commuters  
2018: 177.000 commuters

Increase: 203%

Actual estimations predict a growth up to 270'000 commuters in 2030



# Congestion of road network (2009)

SATURATION DU RESEAU  
ROUTIER EN 2009

Source : Cellule modèles de transport

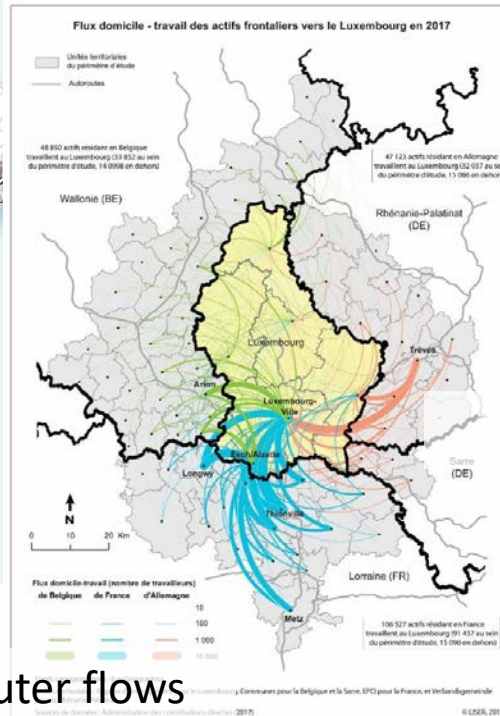
DEGRE DE SATURATION  
DU RESEAU ROUTIER

- Degre de saturation > 90%
- Degre de saturation 60 - 90%



# Congestion of public transport

**General growth needs  
better transport systems**



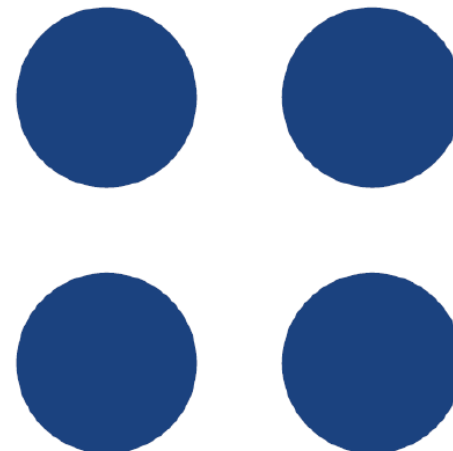
# Commuter flows



# Strategy

## Modu 2.0

*Stratégie pour une mobilité durable*

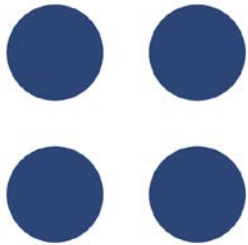


**Modu 2.0**

Stratégie pour une mobilité durable

**Modu 2.0**

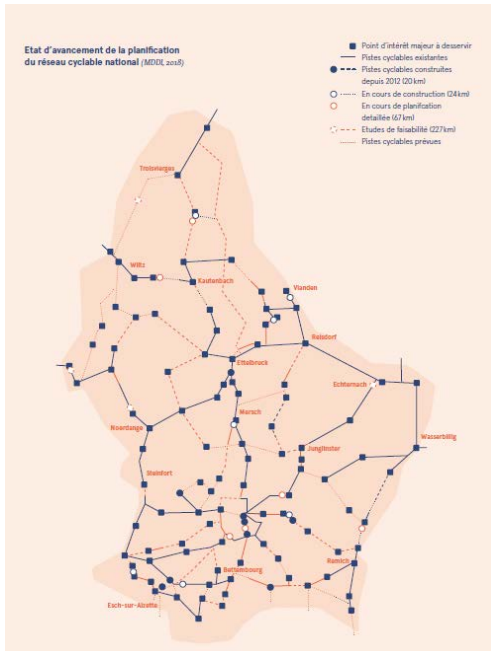
Stratégie pour une mobilité durable



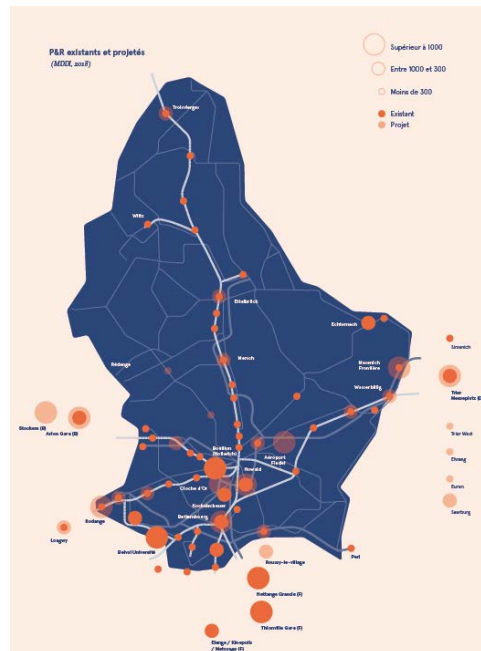
The Modu 2.0 focuses on multi-modality and enhancement of public transport, and on the realization of the 4 pillars of this strategy, which are Tram/Multimodal exchange, Park and Ride, active mobility, road and train projects.

Mobilité  
zusammen  
erreichen

**LES MOBILITÉS  
ACTIVES**

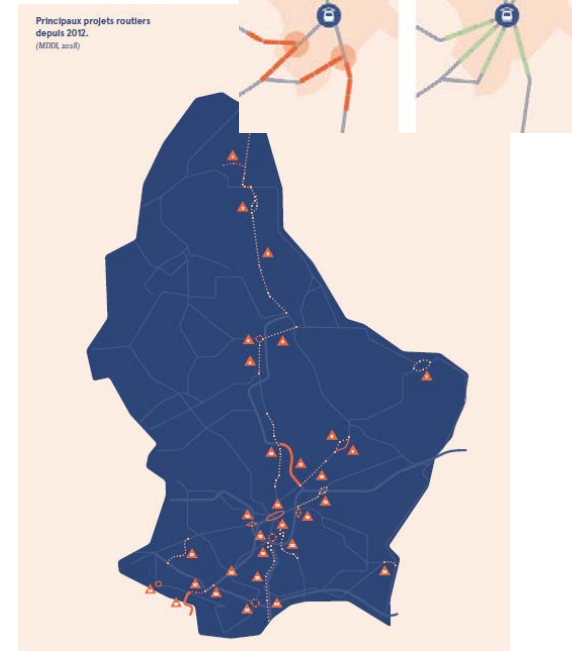


**LE TRAM ET LES PÔLES  
D'ÉCHANGE  
LES PARK AND  
RIDE (P&R)**



**LES PROJETS  
FERROVIAIRES**

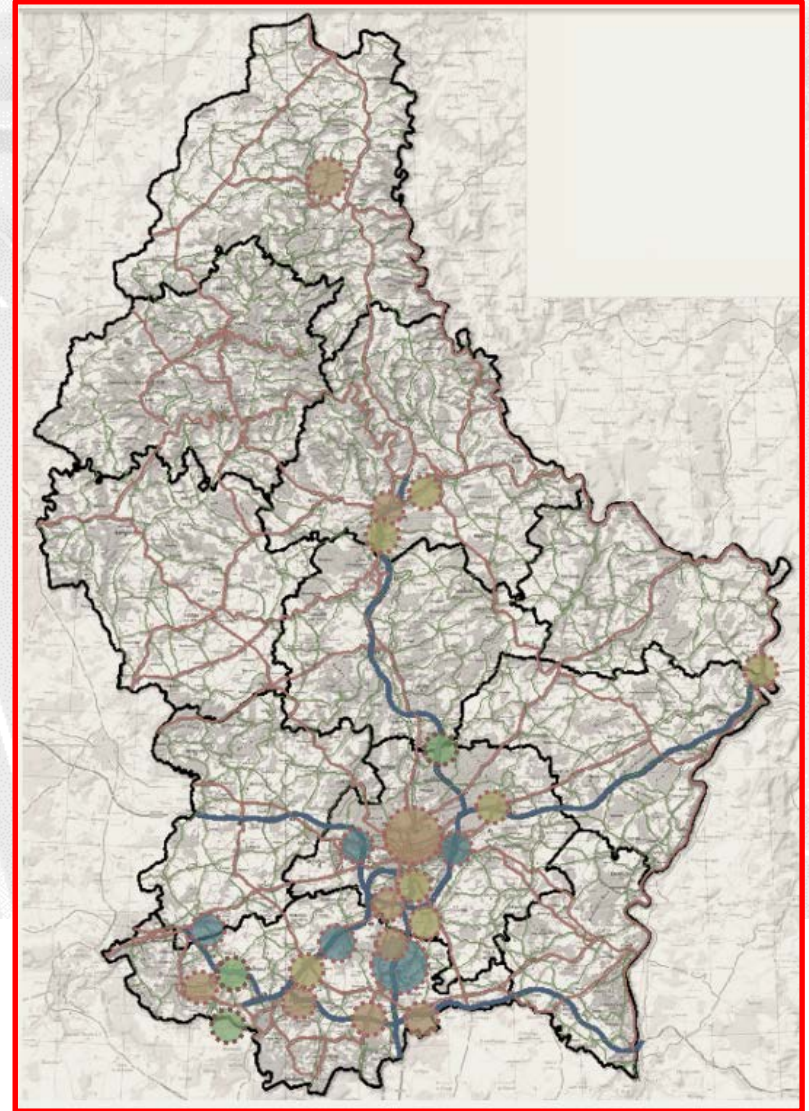
**LES PROJETS  
ROUTIERS**







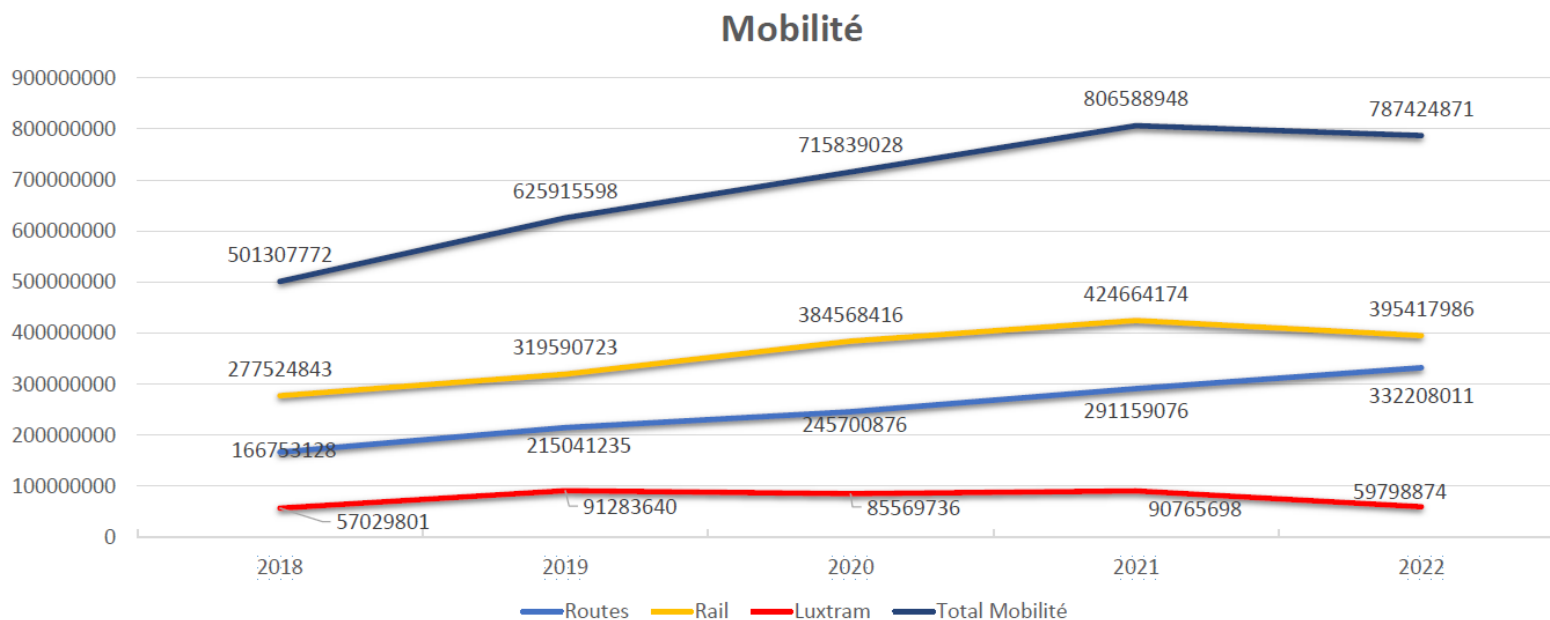
# Action plan





# Minister Bausch's announcements 2019

## Investissements Mobilité 2018-2022



General increase of investments from 500 to 800 MEur/year, road infrastructure from 170 MEur in 2018 to over 330 Mio Eur in 2022



# Infrastructure: “Plus et plus vite” - Do more and faster!

## Ambition 2019-2023: « Plus et plus vite »

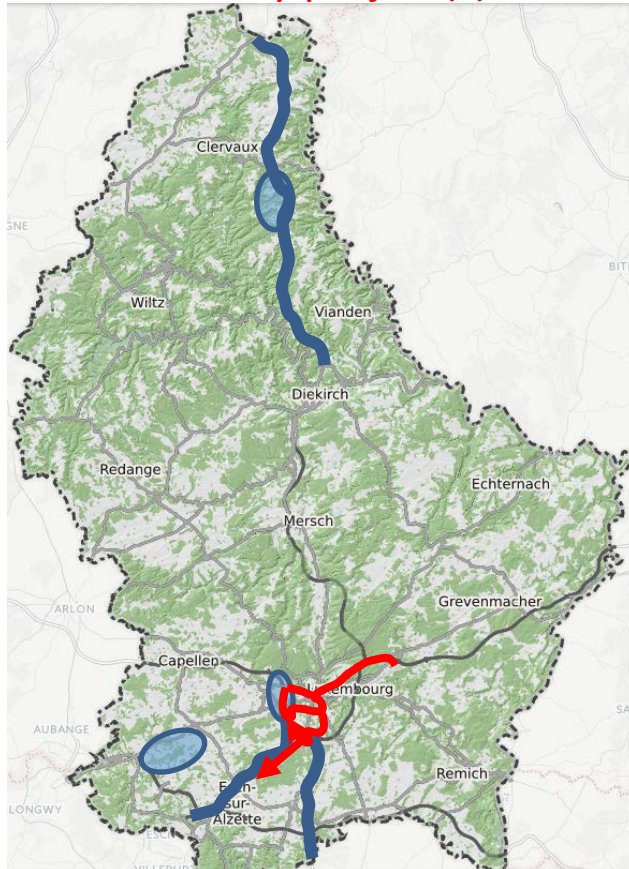
- Mise en œuvre de la mobilité multimodale restera une des grandes priorités des cinq années à venir
  - Identifier les mesures et les infrastructures les plus aptes à améliorer durablement la mobilité dans toutes les régions du pays et des régions frontalières des pays limitrophes
  - Le cas échéant, adapter les planifications en cours afin que toutes les infrastructures contribuent au concept global
- Programme d’investissement ambitieux sera réalisé
- Projets d’infrastructure seront mis en œuvre plus rapidement qu’initialement prévus
- Investissements dans la mobilité seront augmentés de manière considérable

**Multi-modality, Durability, Big invests and fast transposition**

# Priorisation of projects

## Phasage des projets prioritaires

Push Tramway project(s) considering further urban developpements:



### Réseau du tramway:

- Tronçon A place de l'Étoile – Luxexpo en service depuis 07/18
- Réalisation du réseau vers la Cloche d'Or et Höhenhof/Aérogare avant 2023 (tronçons B, C, D et E)
- Place de l'Étoile - boulevard de Merl (projet de loi avant 2023)
- Porte de Hollerich – boulevard de Merl (projet de loi avant 2023)
- Boulevard de Merl (projet de loi avant 2023)

### Projets routiers:

- Contournement de Bascharage (début travaux ???)
- Contournement de Hosingen (projet de loi 2020)
- Sécurisation N7 (projet de loi 2020/21)
- Élargissement A3 avec priorisation Bus et Covoiturage (début travaux 2020)
- Boulevard de Merl (projet de loi avant 2023)
- Corridor Bus sur A4 (projet de loi 2021)
- Optimisation A13-A4-A13 (projet de loi 2021)

Push important road projects: Bus corridors, 3<sup>rd</sup> lane, Sécurisation, Capacity increase



# Implementation

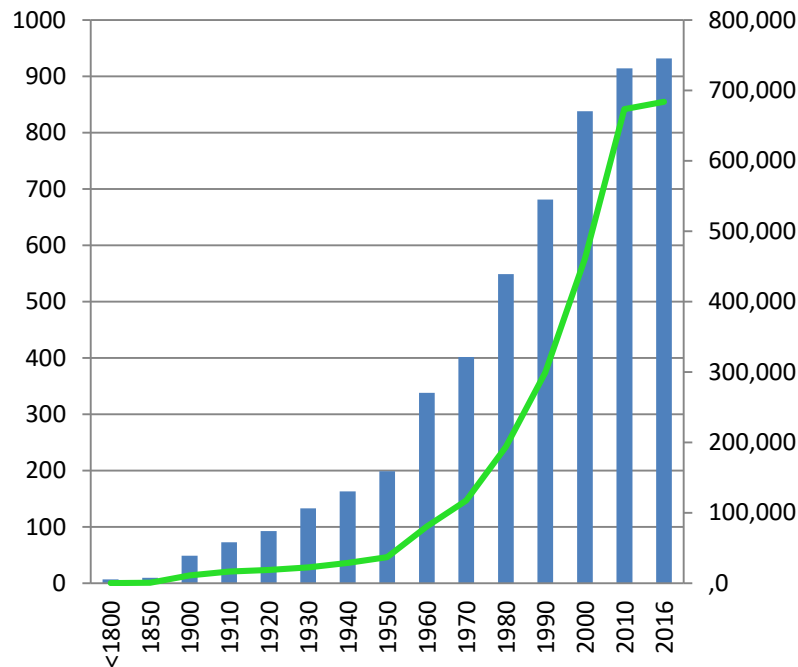


# Basics: Maintenance of existing infrastructure is a must

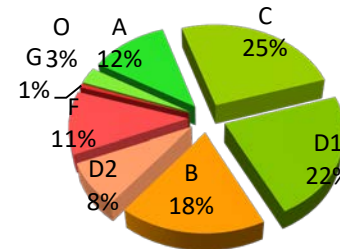
e.g. bridge management: consequent amounts allocated to maintenance of all infrastructures

**Green** – good condition  
**Orange** – acceptable  
**Red** – maintenance needed

Evolution of number of bridges and bridge deck area (m<sup>2</sup>)



Bridge health



➔ Bridge repair and maintenance program





# Public transport as a basic service

- Luxembourg is set to become the first country in the world to make all its **public transport free**
- From march 2020 on, fares on trains, trams and buses will be free
- Services offered by the CFL, Luxtram, AVL, RGTR, and TICE are all concerned
- Anybody wanting to use first-class cabins on a regular basis will still have to pay either annually or monthly
- Cross-border workers: For train journeys, the government will consult with the CFL's counterparts in France, Germany, and Belgium. Following these consultations with the SNCB, DB, and SNCF, the ticket prices for cross-border workers will be reduced considerably
- The same applies to the RGTR's 'RegioZone' tickets, which will also be reduced



## Crossborder cooperation

- SMOT: Stratégie de mobilité transfrontalière - Crossborder Mobility Strategies with neighbour regions (Belgium – France – Germany)
- Border cooperation between France and Luxembourg: Protocole d'accord fait à Paris, le 20 mars 2018:
  - e.g. Railway projects Luxbg-France
  - Carpooling and public transport project on motorway A31-A3



### ***PROTOCOLE D'ACCORD***

*ENTRE*

*LE GOUVERNEMENT DU GRAND-DUCHE DE LUXEMBOURG  
ET LE GOUVERNEMENT DE LA REPUBLIQUE FRANÇAISE*

*RELATIF AU*

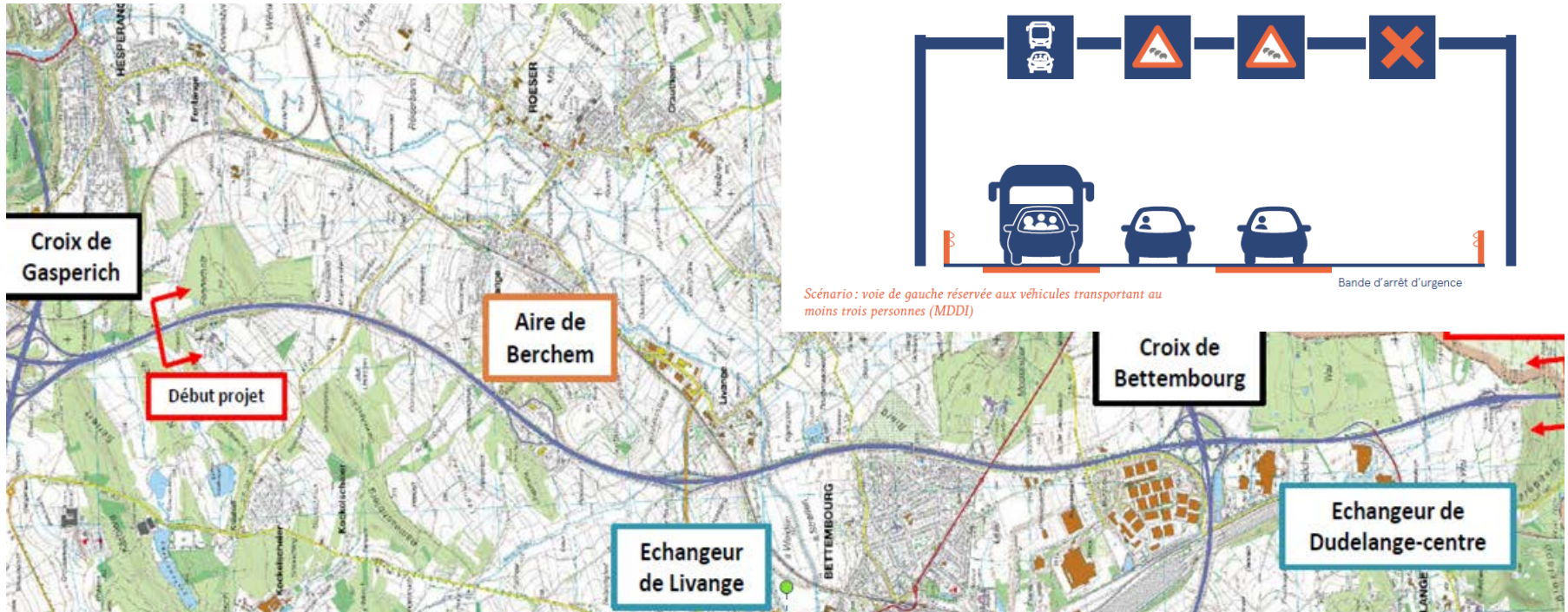
*RENFORCEMENT DE LA COOPERATION EN MATIERE DE  
TRANSPORTS TRANSFRONTALIERS*

Contribution by the Grand Duchy of Luxembourg to French developpements: max amount of €120,000,000: €110,000,000 is for the railways and €10,000,000 for the promotion of a sustainable mobility policy, with a view to a total contribution of the Luxembourg part equivalent to 50% of the investment costs in France.





# Overview: adding a 3rd lane with possibility of Carpooling on stand-lane

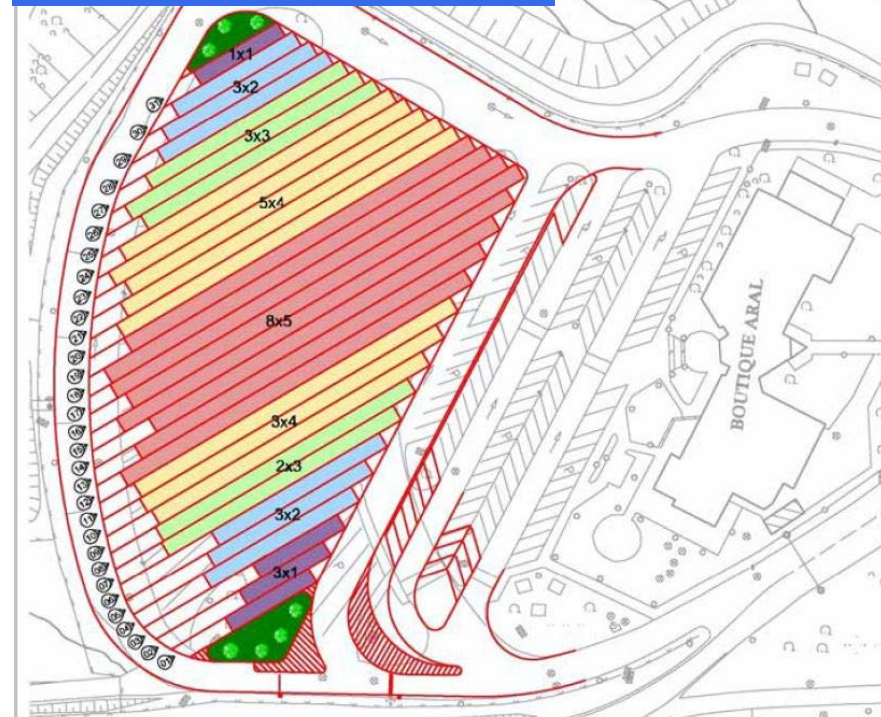
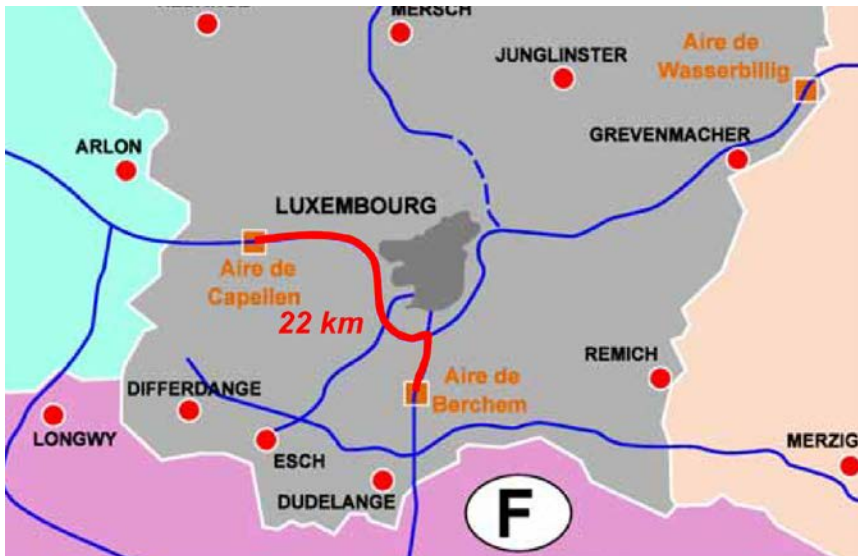


- Total length: ca. 12 km
- space needed: ca. 100ha
- Cross section: 32,50m (existing 24,00m)
- Junctions: 2 (éch. de Livange et de Dudelage-centre)
- Cross A3/A13: (croix de Bettembourg)
- Bridges: 20
- Bassins de rétention: 5
- Noise protections: 5,3km (longueur existante 2,3km)
- 20.000m<sup>2</sup> (surface existante 6.800m<sup>2</sup>)
- Wildlive bridges: 2

Tender process will start in summer 2019

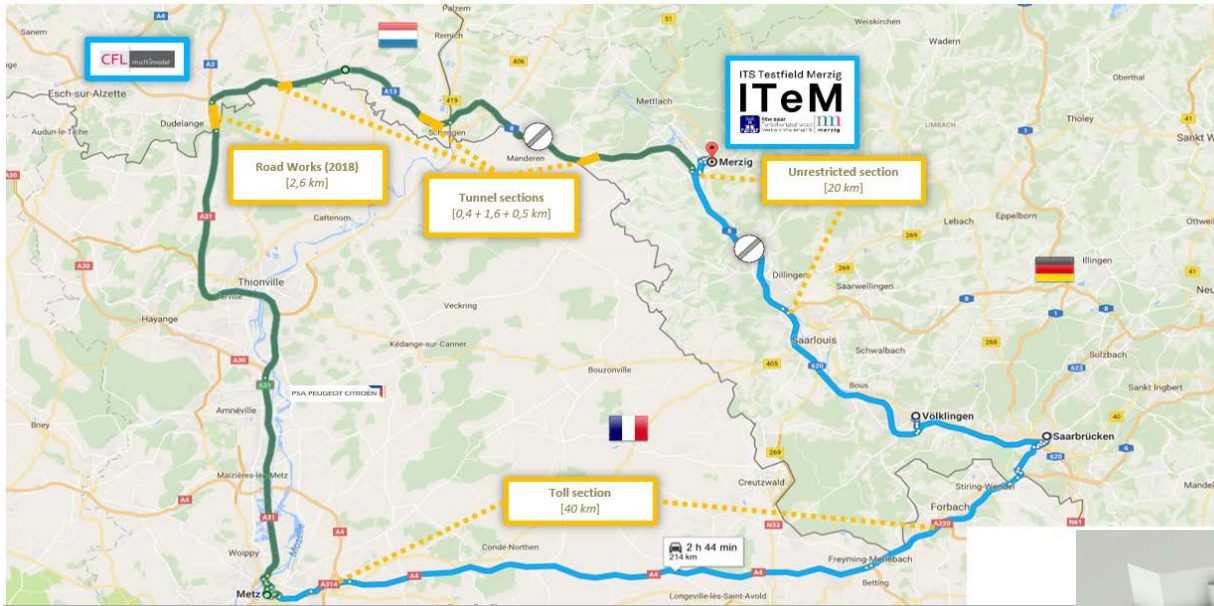


# Dynamic/intelligent truck parking on A3



Smart increase of existing parking capacity by reorganization of the surface and installation of technical solution for optimizing rest time and allocation of parking slots

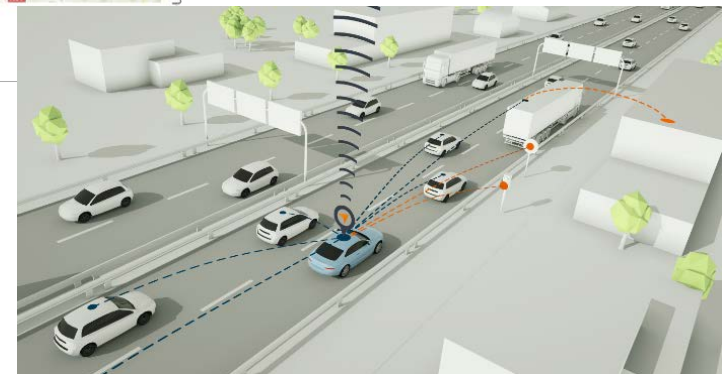
## German-Franco-Luxembourgian Digital Test Bed



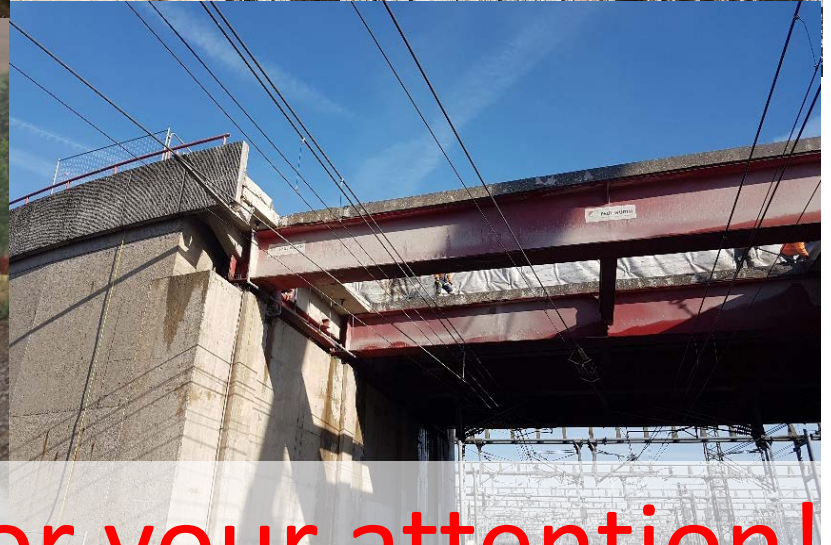
Source: google maps

Crossborder Testbed F-D-L for CAD / connected and automated driving

Official start early April 2019



Source: BMVI



**Thank you for your attention!**