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Innovative mobility and transport for the particular challenges of peri-urban areas – findings from a multi-criteria analysis in France

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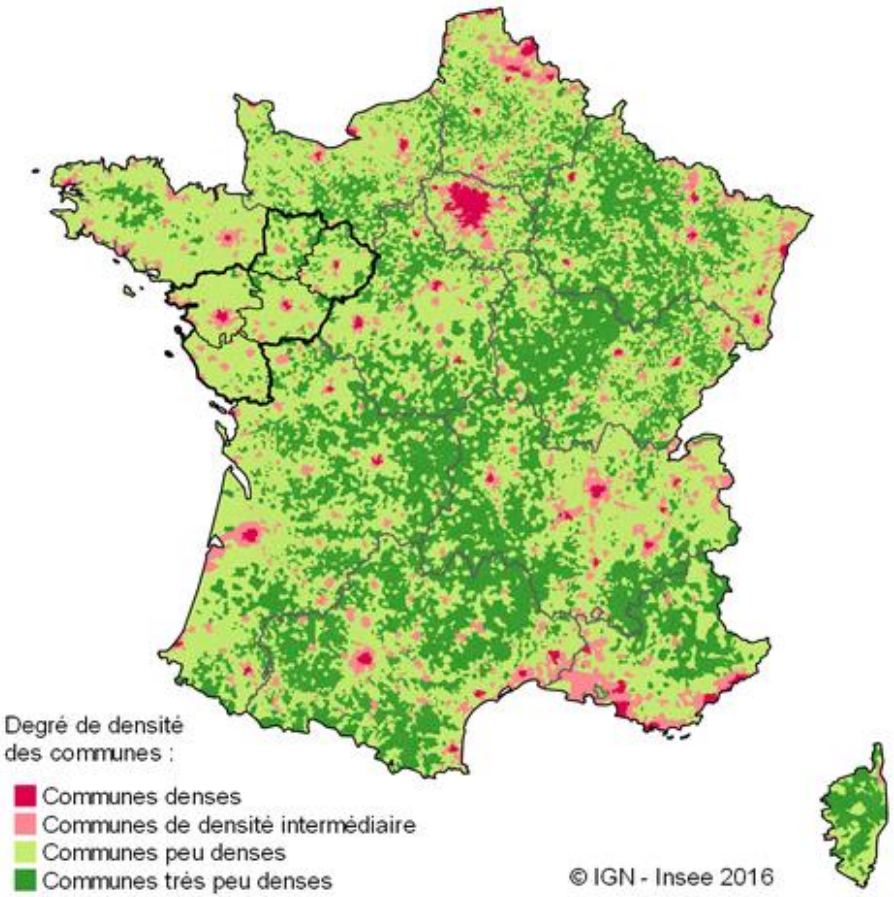
Characteristics of peri-urban areas

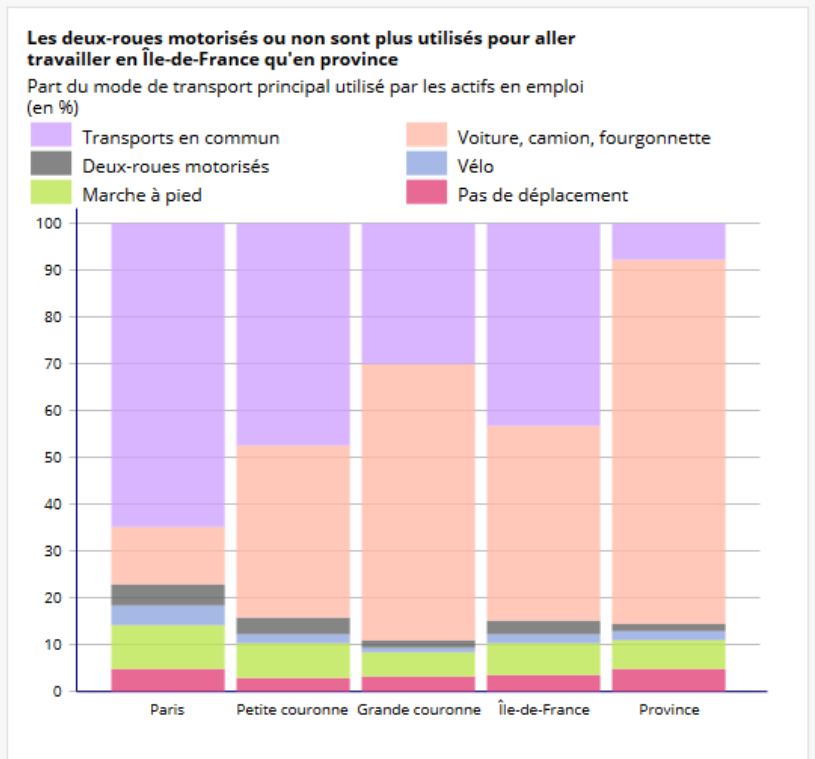
- "Communities that do not belong to an urban area, in the sense of building-continuity, and that see at least 40% of their employed population working in another urban area" (INSEE 2011)
- Around 9 million people are living in peri-urban areas in France
- 2000's: a peak in yearly mileage driven
  - **32 000 km for peri-urban areas**
  - **12 500 km for urban areas**
- A gradual reduction of offering in peri-urban living areas – more and more activities are taking place in the central urban areas and city centres
- Average distances driven by car per day
  - **12,5 km in 1996-99**
  - **11,4 km in 2014-18**
- modal share does not change, but distances have stopped increasing



source: INSEE 2019

Challenges in peri-urban areas

- Most transport is done by car
- Distances of work-commute are increasing
- Fuel prices are increasing
- Developing and implementing new mobility and transport solutions for peri-urban areas is often very complex
- Potential social and environmental improvements realised by innovations tend to be substantial
- Acceptance and financing of innovative transport solutions
  are often an issue



source: INSEE 2019

MUTANDIS – the project

Research Axis 1: development of a typology of mobility needs in peri-urban areas, and multi-criteria assessment of currently deployed solutions

- Characterisation of test peri-urban areas by economic, sociodemographic and cartographic data
- Development of a typology of mobility and transport needs: socio-economic and geographical determinants of mobility and transport demand
- Comprehensive evaluation of the mobility solutions currently deployed in peri-urban areas

Research Axis 2: new mobility solution packages

- Proposal of combinations of innovative solutions suited for peri-urban areas
- Assessment of the proposed mobility solutions and their combinations

Research Axis 3: analysis of governance models

- Innovative mobility and the perception of its relevance on a political level: changes in political arguments' analysis, in political communications, and analysis of political discourses
- Development of innovative mobility solutions in the test areas by means of a co-construction process
- Mobility data: sourcing and management of relevant data

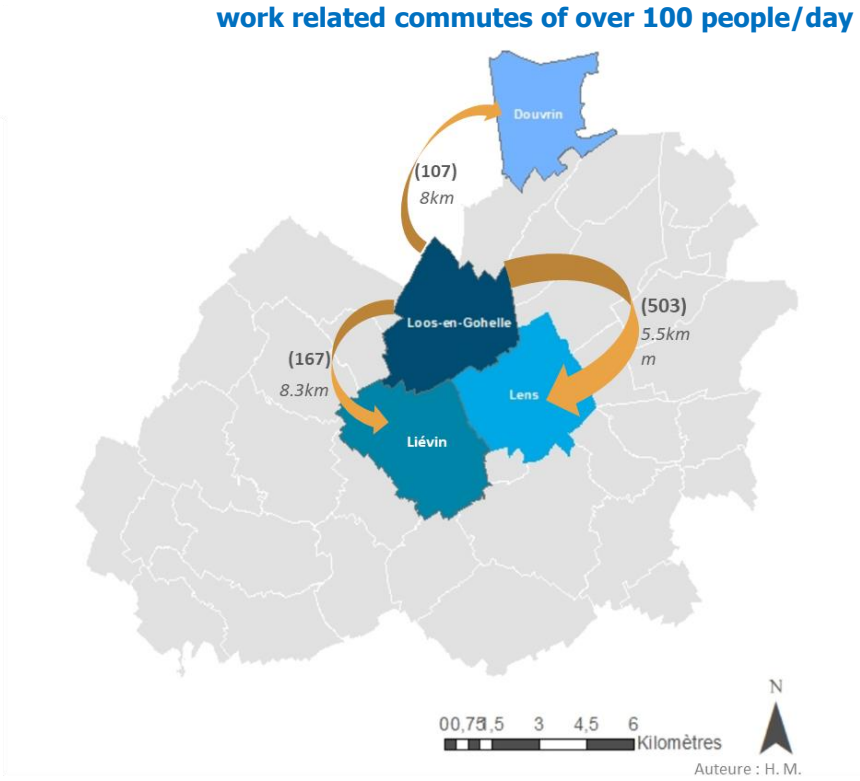
Loos-en-Gohelle

characteristics

- former coal mining area in the North of France
- with a strong focus on sustainable development

population

- 517.2 hab./km²
- 6 568 inhabitants
- poverty rate of 19%
- 37% of population retired
- 24% working class



Source : Insee, base flux mobilité domicile- travail, 2010

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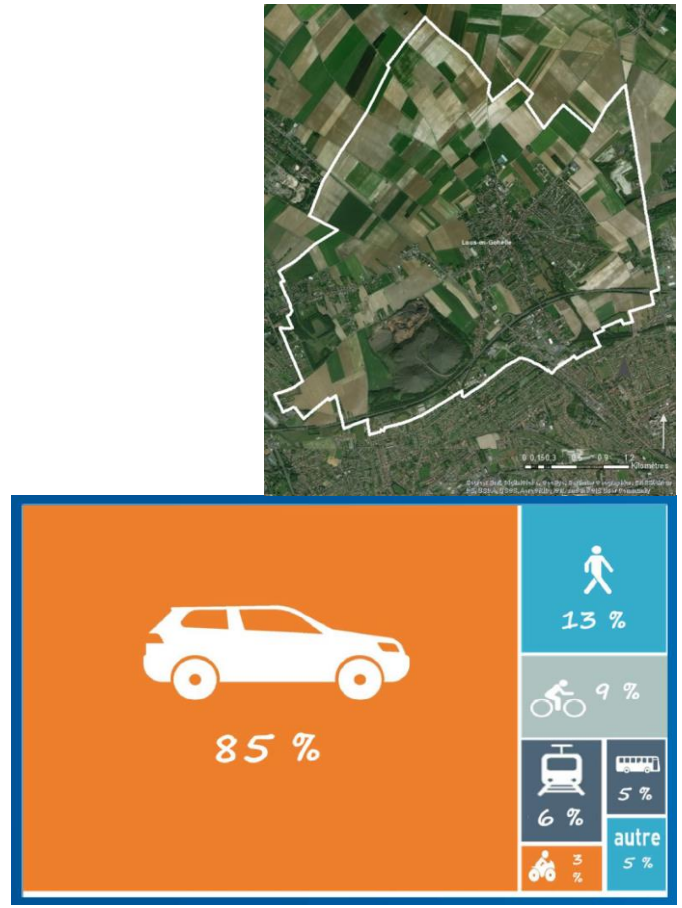
Mobility in Loos-en-Gohelle

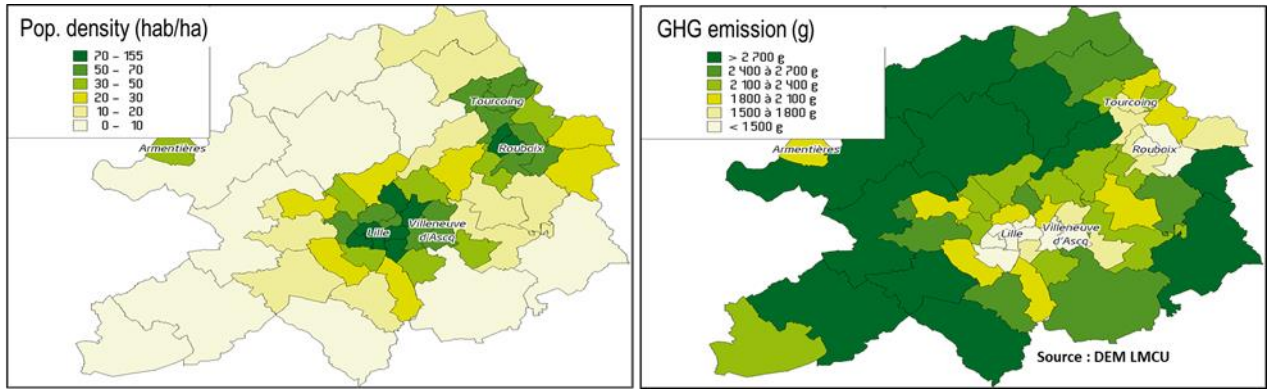
Findings from a survey carried out with 300 inhabitants

- 83% of households own a car
- 85 % of commutes to work is made by car
- 20km are travelled on average by car per day
- Most travellers travel 10km/day,
- remaining within a zone of 15km around Loos-en-Gohelle.
- Only 5% travels over 90km/day



Key-findings from the multi-criteria analysis of mobility behavior and needs in peri-urban areas

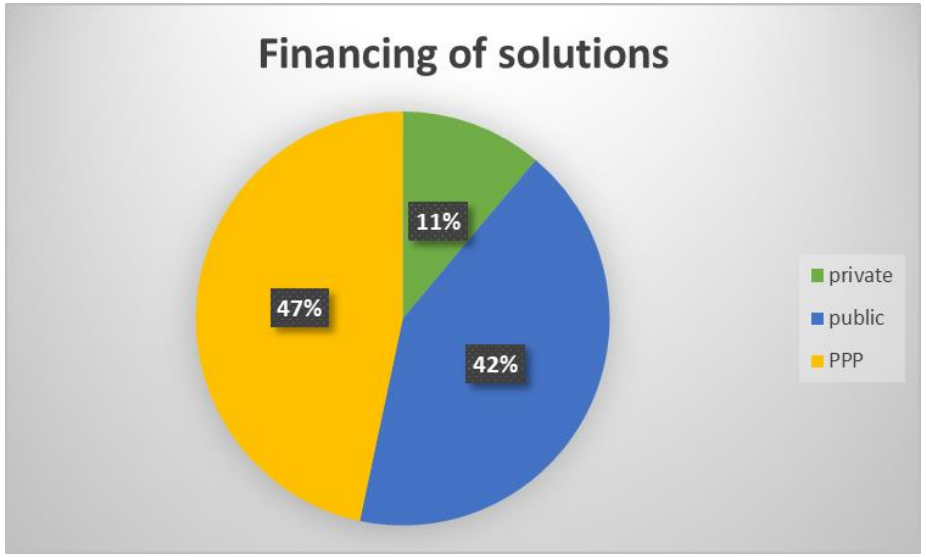
- The use of car is decreasing due to rising fuel prices and increasing unemployment,
- while work commute distances are increasing;
- Households are dedicating more and more the use of their car to work commute;
- Use of car and economic development are still closely connected in peri-urban and low-density areas, due to alternative forms of transport

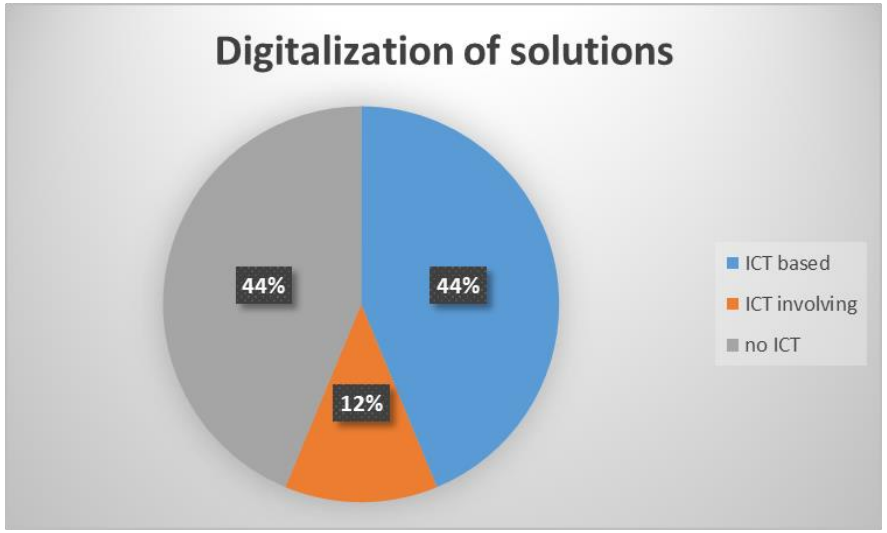


source: Blanquart

Findings from the analysis of innovative solutions and experimentations

- analysis of over 70 experimentations
- passenger and freight transport
- in France and elsewhere
- categorised by over parameters (e.g. user group, transport mode, ICT-based or not, financing, costs, success etc.)





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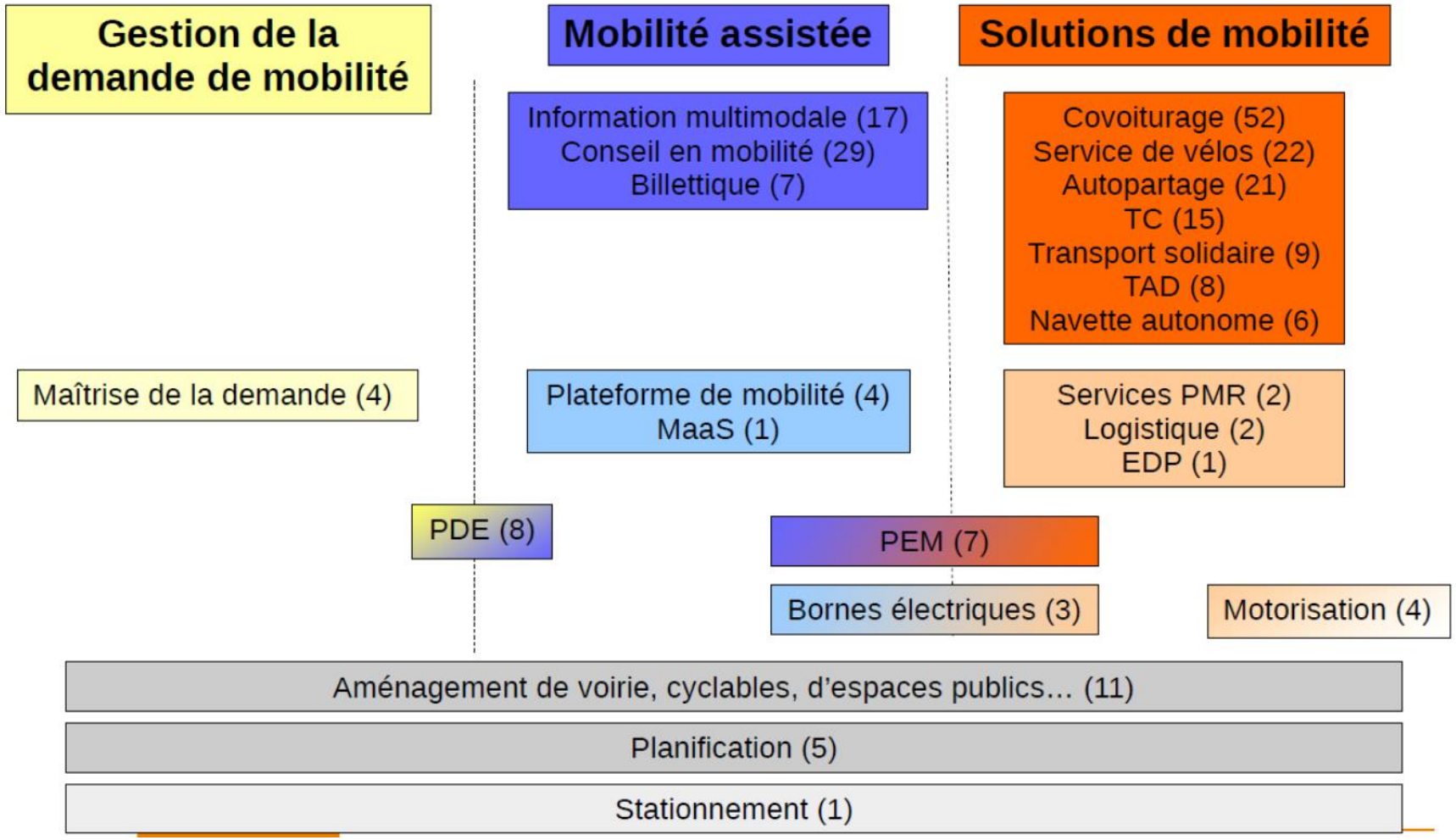
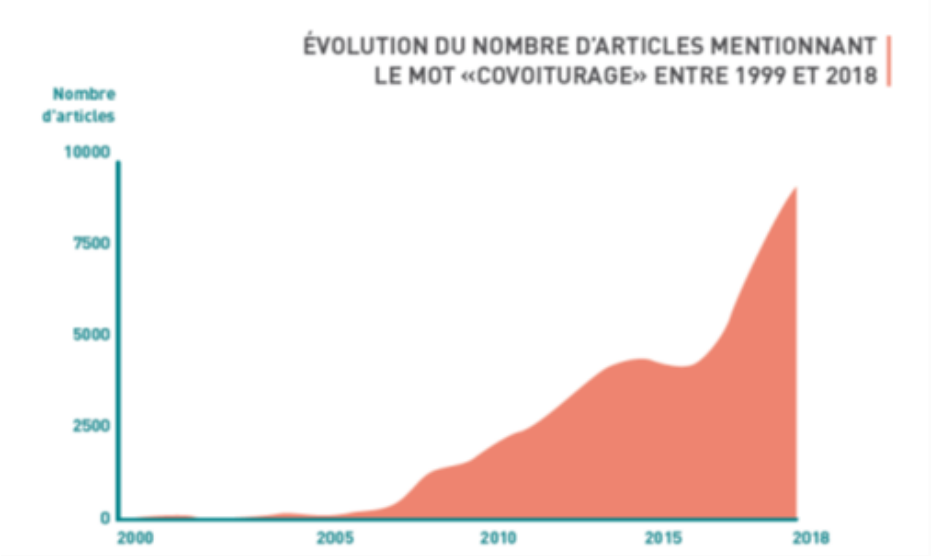
Typology of mobility innovations

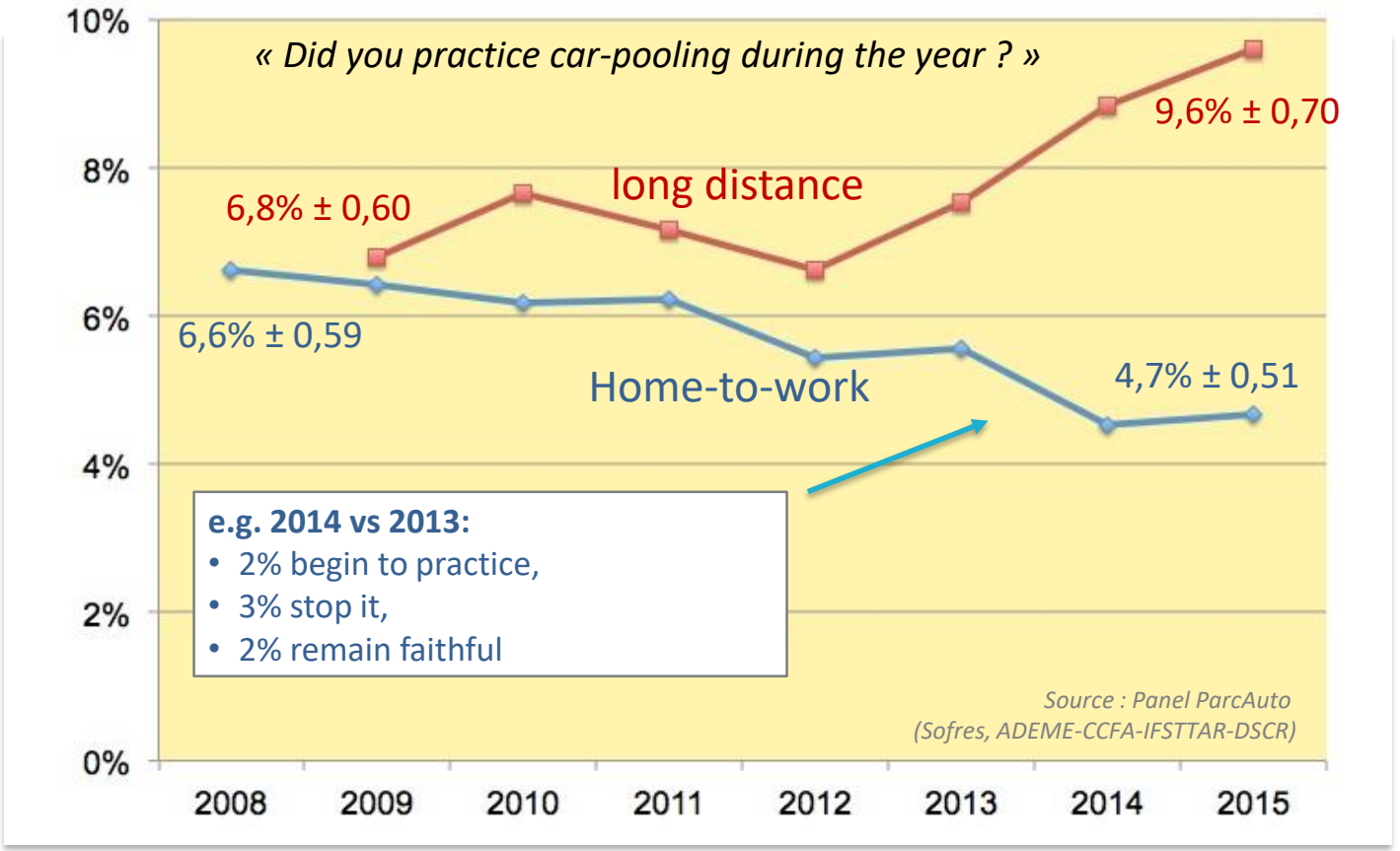


Car-pooling is the dominant « innovation »

- analysis of mentioning by candidates at the 2014 municipal elections in the Paris area (69 communities with more than 5 000 inhabitants):
  - Mobility is considered a key issue (70%), mostly for quality of life
  - Innovations mentioned are rarely related to mobility, but rather to connectivity (fiber optic)
  - 11% of the candidates talked about “new” mobility services: EV, tram-train, bike share services, car share services, “pedibus”
- analysis of regional press from 1999 à 2019:
  - 15 308 articles were analysed
  - The advanced diffusion of carpooling in local policies precedes the spread of innovative implementations;
  - Carpooling is spreading increasingly
  - with strong interregional variations;



2008-2015: no increase in Home-to-Work car-pooling though



Summary

- The peri-urban area is an important area with major transport and mobility issues
- It is to be expected, that the significance of these issues will increase
- At the same time, the pressure to develop and implement innovate solutions is rising
- Currently, innovative and experimental solutions still often rely on transport by car

- **There is a disconnection between existing needs and developed innovations**
- **The identification of mobility needs is difficult**
- **Governance is a central issue for the successful implementation of innovations**

Acknowledgements et sources

- International symposium
  - June 24, 25 2019
  - Collaboration avec l'université de Barcelona et la Casa de Velazquez
  - 12 papers
  - collection de « la revue méditerranéenne de sciences politiques »
- Publications:
  - Géocarrefour : Pigalle & Baron « Les mobilités "innovantes" et "durables" dans les discours électoraux : des mots pour faire bouger le local »
  - Urbanités : Tollis, L'Hostis & Boubakour « Quand la participation des habitants retoque le projet d'un périurbain intelligent. Enseignements d'un programme de recherche-action sur les mobilités durables à Loos-en-Gohelle (62) »
  - Int J of Urban Planning and Smart Cities : Tollis, L'Hostis & Boubakour « Low appetite for high tech, When the indifference of inhabitants to digital mobilities impedes a smart suburbs project in Loos-en-Gohelle, France »
- Développent des coopérations avec le réseau POLIS

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