NOTE RAPIDE
PARIS REGION DEVELOPMENT AND URBAN PLANNING INSTITUTE #23

MOBILITY
April 2019 • www.iau-idf.fr/en

REDUCING ROAD CONGESTION: THE CREATE GUIDELINES

TRANSPORT AND MOBILITY TOPICS LIE AT THE HEART OF THREE ISSUES FITTED INTO CURRENT POLITICAL AGENDAS: AIR POLLUTION, CLIMATE CHANGE AND TERRITORIAL INEQUALITIES. CAR USE AND ROAD CONGESTION HAVE BEEN BLAMED FOR CONTRIBUTING TO THESE NEGATIVE EFFECTS. THE EUROPEAN CREATE PROJECT EXPLORES THE HISTORICAL EVOLUTION OF TRANSPORT POLICIES FROM 'CAR-ORIENTED' TO 'PLANNING FOR CITY LIFE' AND PROVIDES SOME GUIDELINES TO IMPLEMENT MORE LIVEABLE CITIES AND MORE SUSTAINABLE MOBILITY BY REDUCING PEOPLE'S DEPENDENCY ON THE CAR.

The CREATE project (Congestion Reduction in Europe Advancing Transport Efficiency) is an 2015-2018 EU-funded project under the Horizon 2020 programme. It brings together 18 partners coming from 11 countries in Europe: five Western European cities or regions (Paris Region represented by Paris Region Development and Urban Planning Institute/IAU, London represented by Transport for London, Copenhagen, Berlin and Vienna), five cities from Eastern and Mediterranean Europe (Tallinn, Bucharest, Skopje, Adana and Amman) and eight research laboratories or consulting firms.

The main objective of the project is to learn from the lessons of the past in terms of the role that has been attributed to private cars in cities, in order to think about how to plan and develop urban transport in the future. CREATE analysed why and how these cities started thinking differently about mobility in the 1990s. This shift is the result of an evolution approach. During the 1950s, there was a "first Stage" during which cities mostly tried to build road infrastructures and give more space to cars. This is the situation observed today in the Eastern and Mediterranean cities partners of CREATE which are still experiencing rapid increases in car use. The development of the 'Stage 2' type of policies concerns mitigating car traffic and developing public transport alternatives, resulting finally in a peak-car phenomenon as cities transition to 'Stage 2'. The Western European cities in CREATE already had pre-existing public transport networks which were considerably enhanced ever since. Finally, the development of a 'Stage 3' is characterized by planning for a liveable city resulting in a reduction of car use and a development of liveable places.

Transport is more and more replaced by mobility in discussions, aiming to achieve well-being with a growing focus on walking, cycling and shared mobility. But this evolution process is observed only in cities, not in peri-urban and rural areas, where car remains the predominant mode.

IAU
INSTITUT D'AMÉNAGEMENT ET D'URBANISME
ÎledeFrance

THE CREATE GUIDELINES ADAPTED TO THE LOCAL CONTEXT: LONDON AND COPENHAGEN

Road pricing in London

When introduced in central London in 2003, the scheme initially recorded a 30% cut in traffic congestion in its area. This has progressively been eroded as the introduction of cycle and bus lanes, plus extended pedestrian crossin times have reallocated road space/capacity away from cars. However, such reallocation, when pursued in a joined-up way alongside complementary measures, actually increases the capacity of the infrastructure overall. From 2000 to 2012, the number of daily journeys made by bicycle in Greater London doubled to 580 000. This has freed up capacity on public transport, helping to attract car users to make the shift. The re-election of the Mayor in June 2004 showed that such touch decisions can prove popular to the majority of citizens.

Copenhagen, the 'cycling city'

The emergence of the 'cycling city model' results from the experience accumulated in Copenhagen since the 1970s. Yet it only developed into a full-fledged model when cycling was singled out as a major driver of change in the city's climate change agenda and place-making strategy. Since then, cycling has benefited from unprecedented levels of political support and visibility. As a model, 'the cycling city' combines a change in policy discourses and practices which increasingly refer to streets (*vs.* roads); a diversity of mobility usages *versus* infrastructures; innovative forms of policy-making, grounded in story-telling, experimentations and continuous readjustments; a set of communications tools maintaining the public's attention together; and flagship initiatives projects. The 'cycling city model' also relies on a strong eco-system of sympathetic civil society organizations, academics, urban planners, think-and-do-tanks, who all ensure its promotion worldwide. Together, these joint efforts account for Copenhagen becoming a full-scale laboratory and showcase for innovative urban planning and mobility practices.

MOBILITY APPROACH EVOLUTION: WHAT WOULD POSSIBLY BE CONSIDERED A 'STAGE 4' CITY?

The CREATE consortium discussed what happens after Stage 3. With the emergence of car-shared mobility, of electro-mobility and in the future of autonomous vehicle, is a possible 'Stage 4' the sign of the revival of car use? The key issue is not just about 'Stage 4', it is also about whether or not the learning stage of the evolution process could be short-circuited. Most of East european cities are still much planning for cars and seeking to mitigate the negative impacts of congestion. The work done in CREATE shows that car use reduction was achieved by shifting priorities, by adding successive layers of transport policies and developing a more integrated approach and by combining a large diversity of transport solutions in which road infrastructures and cars are only considered one possible solution among others. In this multi-layered context, some elements of Stage 4 are already visible, with a growing focus on new services of mobility (ridesharing, free-floating new modes, Mobility As A Service/MaaS, dynamic transport on demand, etc). In all our CREATE cities, transport developments also raised major governance issues, in terms of defining collective goals, ensuring coordination between the public and the private sectors, between levels of local government.

The challenge now is to expand those transport developments that have been taking place in the urban core towards the periphery, to reduce socio-spatial inequalities related to transport and mobility. The big challenge in Europe today is how to regulate them, how to integrate them in old urban environments and how to avoid them becoming a factor of new or growing inequalities.

Autonomous vehicles

Autonomous vehicles are held to be the next shift in the automotive and mobility fields. These vehicles are likely to have a broad spectrum of impacts on our society. Yet, public authorities are still asking a lot of questions about this disruptive technology and clearly are not yet prepared for its possible massive diffusion, while most people are still ignorant of its impacts on congestion, safety, environment, urbanism, jobs, etc. Many challenges still pave the way to autonomous driving: technological, regulatory, ethical, socio-economic and societal in the short and long terms. IAU hosted a seminar in November 2017 on autonomous vehicles, which allowed it to gather european experts approaching these questions from different angles to fuel the debate. The proceedings are available on IAU's website.

The peer-learning programme: Paris Region twinned with Skopje

A peer-learning programme was developed to assist Stage 1 cities to reduce car use. Each city where car use is declining was twinned with a city where car use is increasing: London and Tallinn, Copenhagen and Bucharest, Berlin and Amman, Vienna and Adana and Paris and Skopje. IAU hosted a delegation from Skopje during two days in 2016. The exchanges mainly focused on how Paris and its region are tackling traffic congestion and moving towards a more sustainable mobility system. Skopje city partners' expectations addressed many issues: Paris Region traffic and mobility planning, public transport organization, traffic information system, Velib bike sharing system, bicycle parking design, urban logistics, and eventually data collection and monitoring of Measures of effectiveness (MoE). IAU experts made presentations on the mobility and traffic data collection and on the concept of mini-roundabouts as a tool to improve road traffic efficiency and safety. There were also presentations of the Regional Sustainable Mobility Plan (SUMP, PDU in French) and of a system of tram and bus priority.

Paris city was also invited to present their urban logistics and the Velib systems. The programme included guided tours: a visit to the Bourdonnais Port (a best practice example of urban logistics in Paris) and a technical visit to the Parcival road traffic management center of the Val de Marne "département" (county). In return, two missions called "mentoring visits" were led by IAU's experts in Skopje in 2017 and 2018. They allowed them to help local decision makers think about mini-roundabouts, dedicated and protected lanes for public transport and bikes, a bike share system, the development of walkability downtown and more globally about the revision of Skopje's Urban Mobility Plan. A specific training session was also organized about traffic modeling and how to simulate new services of mobility with agent-based modeling.

THE GUIDANCE THAT CAN BE DRAWN FROM THE CREATE PROJECT

One of the outputs of CREATE was a set of guidelines providing thirteen recommendations for cities on how they can benefit from incorporating a CREATE approach to reduce car use.

1) Establish a vision. The priority for public authorities should be to establish a vision for their city. It should be a vision in which sustainable transport plays a key role. Investment in infrastructure and innovation should contribute to achieving this vision and transport policy should be aligned with it. A long-term vision and strategy (*e.g.* a Sustainable Urban Mobility Plan/SUMP) should be combined with short-term action plans and incremental targets to monitor progress towards goals.

2) Be bold – experiment. The essence of the CREATE findings is that policies once dismissed as radical, unfeasible or impractical can, over time, gain widespread acceptance and even become orthodoxy.

3) Collect and analyse data to support your vision. There is a need to build a strong evidence-based policy-making and analysis process and

to understand where progress is or is not being made in relation to priorities. Use wider indicators of urban mobility performance and ensure data is carefully measured. Investigate how anticipated technological changes can help you to achieve your aims. This will prepare you to work constructively with such changes if/when they arise so that you derive value from them.

4) Integrate urban planning. Integrated planning between urban and regional authorities and between transport and land-use planning is crucial to avoid unsustainable car-oriented developments leading to congestion. SUMPs should be a prerequisite for any urban developments. CREATE strongly recommends ensureing high-density developments in some parts of cities and regional areas.

5) Integrate governance. Establishing a Regional Transport (or Mobility) Authority for integrating all modes, land-use and transport entities across the regional area can help solve key transport and land-use problems, particularly the integration aspect.

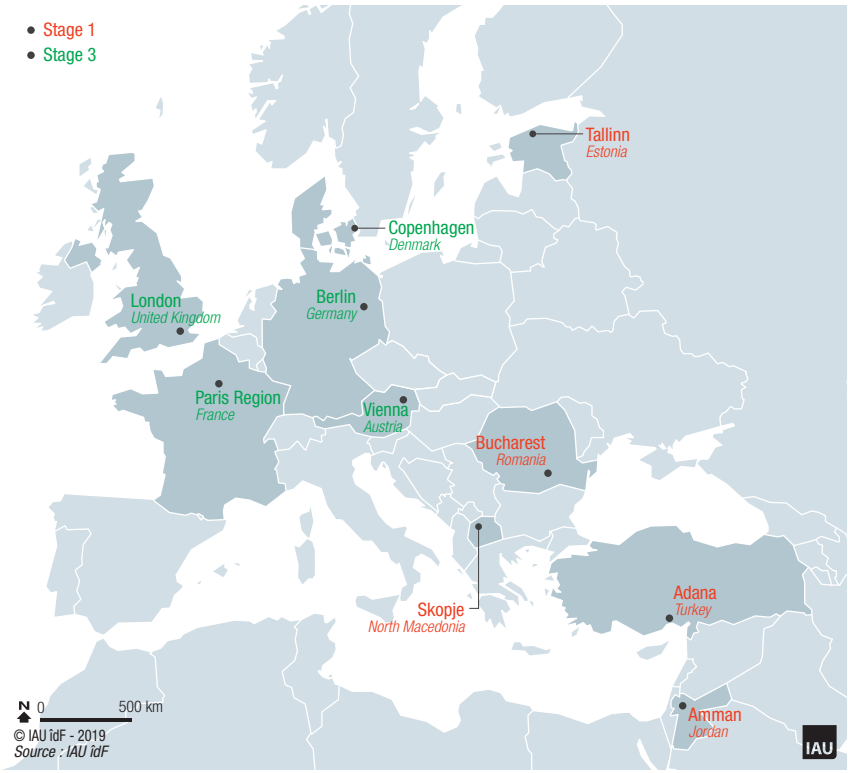
6) Foster multi-level and cross-sectorial governance. Collaboration between policy-makers across sectors and levels of governance (*i.e.* regional, national and european) is needed. For example, improved internet access and e-governance could reduce trips whilst maintaining agglomeration benefits. For this to happen, transport policy-makers should collaborate with the city's communication/ technology department (or equivalent).

7) Provide good alternatives to car use to foster modal shift. There is a need to anticipate congestion problems before traffic gets worse by providing attractive and efficient alternatives to car use, in particular public transport and active modes. Infrastructure should be built primarily for the movement of people and for place-making instead of the movement of vehicles. Investments should focus on sustainable mobility solutions, including public transport, cycling and walking. Young students who rely on public transport represent a 'captive audience'. If alternative mobility options are provided to those users they will be less likely to rely on car use in the future.

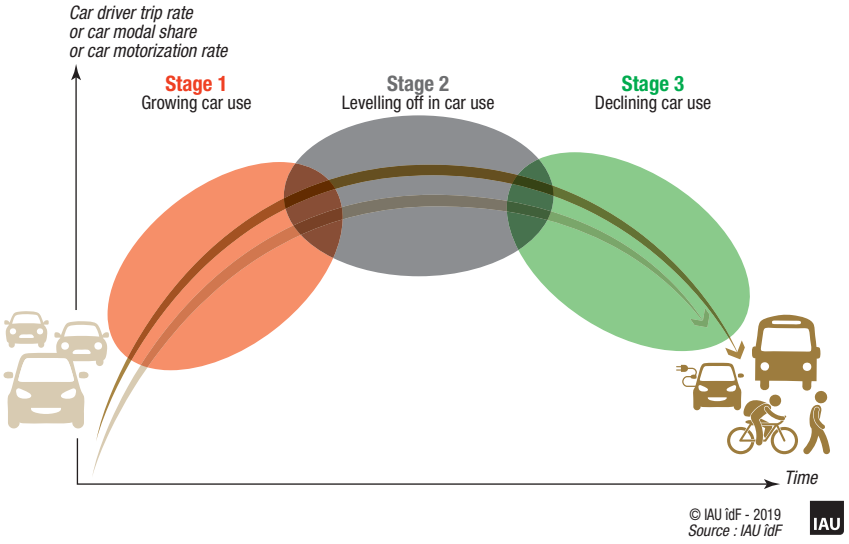
8) Discourage car use. Once alternatives to car use are in place, public authorities can discourage car use and encourage a shift to more active and sustainable modes by making car travel more expensive, slower and less convenient than the alternatives (*e.g.* by taxing private vehicles or their use, by increasing parking fees, by decreasing the space allocated to car use), provided that this is in line with the local policy and stakeholder' state of mind.

9) Engage with stakeholders but don't try to be 'all things to all people'. Communicate about your vision: introduce trials and demonstrations – 'seeing is believing' – and run marketing and behaviour change campaigns. Public authorities should actively engage with and consult key stakeholders and citizens, including the media. It would usually be expected that any city-wide transport plan has the broad support of the population, even though The difficult choices sometimes have to be made. Significant change requires a clear set of priorities and a clear policy direction which will not, at first, please everyone.

The CREATE project: 10 European cities or regions partners



Evolution process of cities through the 3 stage curve of car use trends over the last 60 years



10) Increase institutional capacity. Increasing human resources capacity focused on planning for movement and liveability (*e.g.* including urban planners, public transport experts, health experts) is key to support a transition towards sustainable mobility. These people should reflect a diverse range of disciplines and should have an appropriate level of technical expertise.

11) Decentralise decision-making but within a consistent city framework. Evidence suggests that increased autonomy at the local level improves decision making and action at this level. Local authorities should generate sources of funding, for example with parking fees, to support sustainable transport such as infrastructure for cycles. However, local decision making needs to be within a consistent and agreed city-wide framework.

12) Change legal framework. Changes in regulation may be needed to implement key transport policy measures, for example to ensure effective enforcement of traffic regulations (*e.g.* bus lanes or parking provision) and to enable drivers to be charged for the use of existing public roads (see box on road pricing in London).

13) Communicate the benefits of sustainable mobility and place-making policy measures. Inform and engage with the public about the individual and collective benefits of introducing sustainable mobility and place-making policies, in terms of increasing city vitality, improving their health and well-being, better access to opportunities and a more pleasant and liveable urban environment.

The CREATE project shows how transport evolution has developed in the ten Stage 1 and Stage 3 cities. It has shown that each city, while addressing the same challenges, has followed different paths, but with the same broad policy aims and almost the same trends. Finally it is essential that a city develops its own path, based on its own inheritance, customising this Guidelines to local context and norms.■

Jérémy Courel, Dany Nguyen-Luong, Dominique Riou,
Mobility department *(Dany Nguyen-Luong, director),*
Christine Morisceau, Communications department

Thanks for the re-reading to **Pr Peter Jones** (leader of the CREATE project, UCL),
Pr Laurie Pickup (deputy coordinator, Vectos)
and **Vanessa Holve** (in charge of the communication, Eurocities).

RESOURCES

- *Autonomous vehicles: acceptability and impacts on society,* proceedings of the seminar held on November 24, 2017.
- CREATE website: www.create-mobility.eu
- *The CREATE Guidelines* (Sept. 2018) – see deliverable D5.3.
- Project summary deliverable – see D7.5
- CREATE page on IAU's website: https://bit.ly/2WjHapf

HEAD OF PUBLISHING
Fouad Awada
HEAD OF COMMUNICATION
Sophie Roquelle
EDITOR-IN-CHIEF
Isabelle Barazza
MODEL
Jean-Eudes Tilloy
GRAPHICS/CARTOGRAPHY
Laurie Gobled

PRODUCTION
Sylvie Coulomb
TRANSLATION
Christine Morisceau
MEDIA LIBRARY/PHOTO LIBRARY
Inès Le Meledo, Julie Sarris
MEDIA RELATIONS
Sandrine Kocki
sandrine.kocki@iau-idf.fr

IAU Ile-de-France
15, rue Falguière
75740 Paris Cedex 15
01 77 49 77 49

ISSN ISSN 2555-7165
ISSN online 2497-126X

www
www.iau-idf.fr/en

IAU
INSTITUT D'AMÉNAGEMENT ET D'URBANISME
ileDeFrance