



Summary | Annual Conference

Dublin, 8 - 10 June 2022

„Climate resilient cities – challenges for urban mobility and transport“



At the invitation of IMPACTS president Brendan O’Brien, the annual IMPACTS conference in 2022 took place in Dublin. **“Climate resilient cities – challenges for urban mobility and transport”** served as the umbrella theme for the conference.

Dublin has made some significant progress in the implementation of sustainable mobility and transport policy. However, there are still a lot of challenges for the city concerning the topic of the conference making Dublin the ideal place to discuss these issues:

- Dublin’s bay area is a designated UNESCO Biosphere but also has the biggest port in Ireland. How can the city prepare itself for rising sea levels while maintaining the unique Biosphere on its doorstep and still provide sustainable transport options along the coast?
- Dublin has done a lot to strengthen public transport, increase cycling and walking and make Dublin a more liveable city, but will this be enough? Plans and strategies can often be slow and difficult to implement and get public acceptance. Everyone loves a strategy until it affects them personally. What are the lessons to learn from each other in making change happen?
- Change is already happening. Seven out of ten of the highest tides ever recorded in Dublin have been in the last 10 years and works on flood defences are ongoing and extensive but are also constrained by environmental restrictions.
- All Dublin’s transport is above ground and so is susceptible to flooding as the climate changes. Dublin has a greening and sustainable urban drainage strategy but a lot of Dublin’s water infrastructure is Victorian and needs replacing. What does all this mean for the design of public space and streets?

- Dublin has embraced the role of digital techniques, particularly in their application to Public Transport. How can these contribute to meeting the challenges and to making the needed shift from private car to carbon neutral transport?

## Opening and introduction

The conference was officially opened by Dublin's Deputy Mayor, Councillor **Joe Costello**, not only welcoming the participants of the conference but also already giving first insights into the big challenges the Dublin Region is currently facing regarding climate change and sustainable mobility, with a special focus on the necessary adaptation of public space concerning greening and tree cover. The Deputy Mayor especially welcomed Orest Oleskiv from the Ukrainian city of Lviv taking part in the conference via video.

The keynote speech to set the frame for the discussion during the following days was given by **Michael Pidgeon**, Councillor and Chair of the Climate Action, Environment and Energy Special Policy Committee of the Dublin City Council: "*Climate resilient cities – challenges for urban mobility and transport*". In his vivid presentation, Michael first described the political and structural context of Dublin as an important background for the quite ambitious climate goals of the city. He pointed out the comparatively weak local government in Ireland for example concerning the influence on public transport. However, Michael showed how politics and administration can be able to deal with the main challenges like financial resources, the capacity of staff, or a sceptical civil society. His main learnings from his political experience were:

- You need good stories to convince people of the necessity of change, combined with an early consultation.
- You should try things out in the streets to learn and to show the possible benefit of change.
- Don't forget walking as the most sustainable transport mode and put more focus on greenery in public space.
- And finally: Keep going, don't let yourself become discouraged.

This keynote was followed by a panel discussion with the headline *The "big picture" – sustainable strategies for mobility and climate resilience in the context of the national and European framework?* moderated by IMPACTS Secretary **Burkhard Horn**. The panelists (**Dr. Meike Niedbal**, Berlin; **Andrei Novikov**, Tallinn; **Tristan Guilloux**, Paris; **Michael Pidgeon**, Dublin) picked up on Michael's positions and discussed the challenges from the view of their cities along these questions:

- If we talk about resilient cities - what else do we have to keep in mind besides the climate issue? Migration? Demographic change? Economic uncertainties?
- At the conference in London 2019, one of the big questions discussed was: „How can we win the hearts and minds?“ Meaning: we need the support of the broad society to manage the necessary change, and we have to convince also those who are afraid of change. Has there been a significant development within the last 3 years? Is the support already broader? What is the role of politics in this process?
- It's often the big cities where the problems cumulate and where change begins. Do our governance structures match these challenges? Do we need more support from the national government? Do we even need more coordination and pressure from the European level?

The discussion showed clearly that all cities need a strategy to deal with the effects of climate change which is resilient in several aspects – the way we design our mobility systems and public space, the capability of our government structures, and the strategy to get the support of the broad civil society. Positive visions are very important to achieve the necessary mindset change, they have to address also the specific situations and problems of families and working-class people. To meet these challenges is far from easy. But all panelists and the participants from the audience agreed that this transformation process towards a “change for the better” is possible.

Before starting with the specific sessions of the conference **Orest Oleskiv**, Head of Transport Office at the new IMPACTS member city Lviv/Ukraine (taking part online) gave impressive insights into Lviv's struggle to keep up the work for more sustainable mobility structures (based on the SUMP adopted in 2020) also in times of war: *“Sustainable mobility for Lviv - challenges before, during and after the war”*.

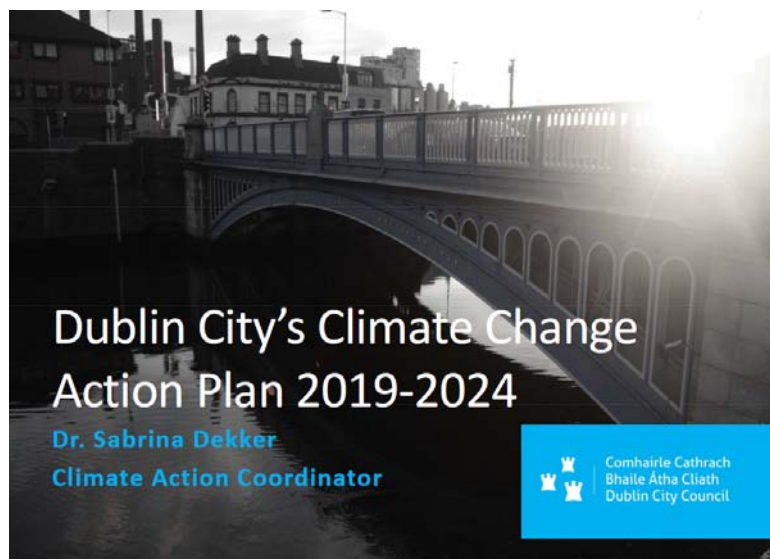


## Session 1: Climate change and urban mobility: new strategies on framework and regulation

The first session (chaired by **Adrià Gomila**, City of Barcelona) with inputs from the IMPACTS member cities Dublin, Madrid, and Gothenburg dealt with different strategic approaches to meet the challenges of climate change and climate adaptation.

### **Dr. Sabrina Dekker,**

working as Climate Action Coordinator for the Dublin City Council, presented Dublin City's Climate Change Action Plan 2019-2024. She described the goals, the mitigation and adaptation challenges, and also some of the measures that are implemented. Sabrina emphasized that the solutions actually mostly exist – the main challenge is to combine



these into a consistent and effective strategy. People need to have ownership of the solutions. Otherwise, the implementation won't work. As one final conclusion Sabrina quoted an Irish politician: „*We have to hasten slowly, which is kind of counterintuitive because there is a sense of urgency for those interested in climate... We need to be calm and we need to be considerate.*“

**Pedro Fernandez** from the Madrid City Council gave insights into the strategic framework for sustainable mobility in Madrid. The overall concept is the „Madrid 360 Environmental Sustainability Strategy“ which serves as an umbrella for other frameworks concepts and regulations like the „Ordinance on Sustainable Mobility“ (approved by the City Council in September 2021) and a new SUMP (approved in 2022). Pedro showed a broad range of measures addressing issues like modal change, clean vehicles traffic safety, and governance. These measures include the extension of the public transport network, new bicycle infrastructure (including parking), and more pedestrian areas, but also stronger regulation for car traffic (parking, restricted access areas).

In the third input, **Mikael Ivari**, City of Gothenburg, Urban Transport Administration, explained Gothenburg's „Strategies for Climate Change Mitigation“ with a focus on the approach to dealing with rising sea levels and intense rainfall in a delta city and the effects on street infrastructure. He showed very clearly the rising level of risks caused by climate change which makes the need for

an integrated strategy obvious. This is also an issue of the legal framework, sufficient financing, and capacity building. Concerning the measures Gothenburg puts a focus on data monitoring, infrastructure (from large-scale barriers in the water to redesigned river banks and resilient road infrastructure), and governance structures – but also on communication: the civil society has to get a sufficient understanding of the rising risks and the necessary consequences.

## **Session 2: Climate resilient streets: New demands on street design and public space**

In the second session, chaired by **Angelika Winkler**, City of Vienna, the panelists introduced different approaches to dealing with new demands on street infrastructure and design regarding the effects of climate change.

At the beginning of the session **Rupert Wimmer**, City of Zurich, Department for Civil Engineering, Head of Transport and Urban Space Planning” talked about “Heat reduction in streets – design standards and first projects”. Zurich is developing a strategy that aims at preventing overheating in the entire city with a special priority to so-called “vulnerable areas”. The measures include more shading (by trees or technical devices), unsealing of surfaces, water retainment and infiltration, more open water with cooling effects (like fountains), and lighter surfaces by materials with high albedo effects. To implement these measures planning instruments adjusted to these new demands are needed and the integration in the planning process is not always easy (scarce space, conflicts with mobility demands). Therefore, Zurich is now developing a catalogue of measures adjustable to different types of public space and implementing some first pilot projects.

**Lucy Schoen**, City of Amsterdam, Coordinator Climate Resilience, described in her presentation “Climate resilient streets” the specific situation of a country with 26% of its area below sea level and 55% with high flooding risks. She gave insights into the history of dealing with water both in the Netherlands and in Amsterdam showing development from adaptation to cultivation by several sophisticated technical strategies. But now, regarding the new challenges created by climate change, a change of strategy again is necessary – from cultivation back to adaptation. “Sponge city” and “water storing streets” are some keywords to illustrate this change. Water passing pavements, infiltration crates and underground storage capacity for water belong to the measures that are being tested. Lucy explained that it’s all about an iterative process including government, business, and research: visioning, acting, monitoring, reflecting, adjusting – and starting all over again.



**Superblocks 2015-2020**

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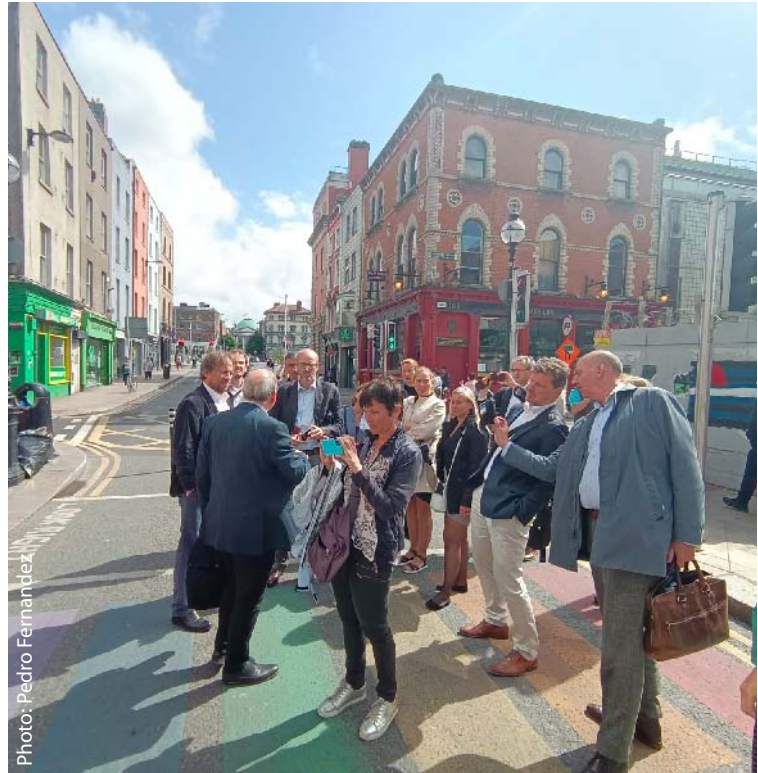


The session was continued with a presentation by **Adrià Gomila**, City of Barcelona, Mobility Services Director about “The Superblock project in Barcelona”. Adrià showed in detail how the Superblock approach is part of the overall mobility strategy for Barcelona. The key issue of the “Superblocks” is to create mostly car-free areas within the parts of the city with a high amount of housing, with public space of high quality. Developed 2015-2020, the success of the project is now obvious, proven by all key indicators (reduction of car traffic, reduction of noise, reduction of air pollution). Therefore, Barcelona is now upscaling this strategy, aiming at a network of green streets with priority for pedestrian and relaxing activities. The Superblocks and the mobility basic network will become the model for a 100% Barcelona transformation of public space.

Concluding the session, **Tristan Guilloux**, City of Paris, Head of mobility agency, talked about the Paris approach for mobility transition and spatial transformation: “Reclaiming public space – more space for cycling and walking”. One decisive precondition is the implementation of the so-called “15-minute-city” aiming at the accessibility of almost everything needed for everyday life by almost everyone within 15 minutes without using a car. This strategy strengthens especially the walkability of a city and also opens the possibility to reduce parking space on a large scale (goal: reduction of on-street parking by 50% within 6 years). Tristan finally gave some insights into three specific policies within this strategy: to enhance comfort and security for pedestrians in every neighbourhood, to enlarge secure space for children, and to implement the new cycling strategy 2021-2026 (aiming at more bicycles than cars in Paris).

## Site visit: city walk to the Grangegorman new Technical University of Dublin

The first day of the conference was completed by a site visit in the shape of a sunny afternoon walk through Dublin led by the host of the conference **Brendan O'Brien**, Dublin City Council, Environment and Transportation Department, Head of Technical Services. It started at the conference venue in Dublin's city centre, first crossing the river Liffey and then leading to Capel Street, an excellent example of "tactical urbanism" during the COVID-19 pandemic where a temporary pedestrian zone was successfully implemented, also taking out all parking space.



The strong increase in the quality of public space was visible to all participants. After a short stop at the museum "14 Henrietta Street" in an old Georgian townhouse, the Grangegorman development area was entered. Having been a large regional mental hospital for centuries part of the area is now becoming home to the new Technical University of Dublin.

Only 1 km away from the city centre, sustainable mobility is one interesting issue of the development including reduction of parking space, new cycling infrastructure and two close stops of the tram LUAS. **Conor Sreenan**, Director of Strategy and Design at the Grangegorman Development Agency welcomed the participants of the conference to one of the refurbished



old buildings in the area and gave an impressive presentation of the masterplan and some strategic projects of the redevelopment. The site visit ended with a tram ride back to the city centre.

### Session 3: Presentation of pilot projects for digital tools

The second day of the conference started with a presentation of some pilot projects for digital tools supposed to serve sustainable urban mobility. Outside the conference venue, a **Google** street view car was shown being also able to measure street level air quality. The Dublin startup company **luna** presented an AI enabled computer vision technology module to be installed at electric scooters to detect potential hazard situations (especially conflicts with pedestrians) currently tested together with the e-scooter company **Tier**.

Inside the conference venue, there was time for a short discussion about these projects. **Payal Pandya**, working for Smart City Dublin City Council presented, in addition, the EU-funded project “Senator” which aims at more efficient and sustainable urban logistics processes also using digital management tools (focus on kerbside delivery parking). The Dublin city centre is one of two Urban Living Labs (ULL). The project has just started. Finally, Payal gave a general overview of the Smart Dublin initiative (set up by the four Dublin local authorities) which deals with open data questions, small business innovation but also specific mobility issues like last-mile delivery or mobility hubs. Developing pilot projects and testing (possibly in one of Dublin’s Smart City districts) is one of the key tasks of Smart Dublin. One crucial learning: it’s all about collaboration – between citizens, industry, research, and government.





## Session 4: Digital tools – a relevant contribution to climate-friendly transport?

The fourth and last session of the conference (chair: **Brendan O’Brien**), directly picked up on the pilot projects presented before and discussed the question of which contribution these tools can actually provide to climate-friendly mobility within the cities.

The first presentation was given by **Willem van Heijningen**, Municipality of Amsterdam, Strategist at the Department of Mobility and Public Space on “Digital management of public space and mobility in Amsterdam”. First setting the frame by pointing out the contradiction between the ongoing transition processes (not only climate change) and the scarce resources (space, energy, money, time, people...) to solve the problems connected with the transition, Willem stated that digitization can contribute quite a lot and speed up developing and implementing the solutions – but only if a just transition is ensured which is beneficial for society. Therefore, the city (representing the public interest) has to have the lead in the digitization process. In 2020, Amsterdam started to develop the project „Future Digital Mobility Center“ starting with developing a vision of future digital mobility management, developing concepts for the mobility center of the future in the innovation center of Amsterdam and finally translating these concepts into organizational adjustments and technical and legal products. The vision is a socially just and ecologically safe city of Amsterdam in 2040 with a responsible dealing with digitization serving the needs of the city and society. Willem finished his presentation with some first possible themes and pilot projects for this new strategy.

**Maggie O’Donnell**, Senior Transportation Officer, Dublin City Council, set a specific focus on digital tools to support public transport as the backbone of sustainable mobility. Talking about “Data Driven Decisions for Centralised Bus Priority in Dublin City” she first gave a short summary of the history of Dublin’s public transport. After this introduction, Maggie described in detail several digital applications mainly for prioritizing buses and trams and the positive effects (up to helping to redesign the networks). Finally, she told the audience „The story of Capel Street“.



This road (visited by the participants during the site visit the day before) was closed for car traffic on May 20th, 2022. The excellent data provided about possible bus delays proved that the closing of Capel Street had no negative effect on the public transport in the area. On the contrary: Partly the service was even improved (as the closing of the street obviously had led to a general decrease of car use in the area).



The session was closed by **Raimund Brodehl**, City of Hamburg, Ministry for Transport and Mobility Transition, Deputy Head of Mobility Department, with his presentation about “Solutions for smart cities – experiences from Hamburg”. Hamburg has set ambitious goals concerning mobility transition in the context of climate protection. Having always seen digitization as an important tool of traffic management it is now also used for supporting the new policy goals. Raimund illustrated this by the example of the project “PrioBike HH” (funded by the national government). The main mission of this project is to increase comfort and safety in bicycle traffic through digital technologies. Some of the measures are the coordination of traffic lights in favour of cyclists („green waves”) and the development of a special cycling information application for smartphones. Raimund finished his presentation with some short information about other current projects regarding digitization and mobility and the way the city of Hamburg deals with the generation and publication of data.



## Closing Remarks

**Brendan O'Brien** and **Burkhard Horn** closed the conference, thanking everybody for their participation and their various contributions. The exchange of views and experiences between the cities provided by the IMPACTS conferences has again proved to be very valuable. As always, not all interesting questions could be discussed in depth. The climate mitigation and adaptation issue will remain one of the main challenges for the cities with sustainable mobility and transport as one of the most relevant aspects. Some questions were raised that should get more attention in the discussions. Are the governance structures in the cities modern and resilient enough to meet the present and future challenges? How can we create the positive visions we need to get the support of the broad civil society for the necessary change? The IMPACTS conference in Paris in 2023 will provide the opportunity to continue and deepen the important exchange between the cities on these questions and others.

All presentations are [available on the IMPACTS-Website](#) to view, download and share!



Photo: Burkhard Horn