



**CLIMAWEBINAR#02: [Mobilizing Communities of Practices: Driving Energy and Mobility Solutions](#)**

The CLIMAWEBINAR#02, held on 18th April 2024 highlighted the importance of mobilizing communities of practices in implementing energy and mobility solutions as well as the need for continued collaboration, knowledge sharing and citizen engagement to achieve long-term success in the pursuit of carbon neutrality.

The webinar brought together CLIMABOROUGH partners, experts, stakeholders and practitioners to discuss the challenges and opportunities associated with creating sustainable and inclusive cities.

The CLIMAWEBINAR #02 showcased mobility and energy initiatives taking place in 5 CLIMABOROUGH cities and two special guests cities with a specific focus on how communities are engaged, how communication strategies are being set up, exploring the ways how local society participated in the transformation process.

The first segment of the webinar featured presentations from CLIMABOROUGH partner cities Differdange, Athens, Pilsen and Grenoble Alpes Metropole, showcasing their experiences with community engagement in the implementation of local policies.

**Differdange, Luxembourg**

Diego Fallah from the city of Differdange in Luxembourg highlighted the establishment of an Energy Community in their city. By bringing together various stakeholders and encouraging citizen participation, Differdange has made significant progress in advancing sustainable energy initiatives. The city has been actively promoting and engaging citizens in energy communities since 2018. One of the most successful initiatives implemented by the city is the installation of solar panels in municipal buildings, which has gathered significant participation from the community. Currently, there are around 100 households in Differdange that are part of this energy community.

To understand the context of this initiative, it is important to know the industrial history of the city. Differdange was built around a steelworks factory, which played a crucial role in the city's economy during the Industrial Revolution. However, in the 1970s the factory faced a steel crisis, which also raised continuous concerns about pollution, health issues and labour conditions associated with the heavily industrialised city. Today, while the steelworks industry still operates with modern safety standards, there are lingering worries about environmental impact and health risks. Residents have

observed a thin layer of materials on cars, leading to concerns about potential health hazards, especially for children in the area. In response to these concerns, the city of Differdange saw an opportunity to bridge the gap between citizens and industries, focusing on renewable energy solutions. The city aims to expand existing initiatives involving solar panels in municipal buildings and explore other renewable energy options such as windmills and geothermal energy. To achieve this, the city is creating a platform that connects citizens and industrial partners and strengthens governance. Workshops are being organised to inform citizens about existing initiatives and opportunities for participation. The city also intends to promote autonomous communities that are not solely reliant on the municipality.

By actively involving citizens and industries, Differdange is seeking to reduce its administrative role and empower organized citizens to take charge of energy communities. This approach not only improves the city's energy autonomy but also enhances the quality of life for its residents. Additionally, the city aims to achieve climate neutrality and provide positive social value. Industries operating in Differdange, particularly the steel production company are also encouraged to contribute back to the local community and regain their prestige. Moreover, the city recognizes the economic gains associated with sustainable projects. The return on investment for the initial solar panel projects was estimated to be around 10 years, which appeals to citizens wanting to make a difference while ensuring financial benefits.

To continue engaging citizens and fostering dialogue between industries, civil society and the municipality, Differdange is organizing workshops and informative sessions. These sessions allow representatives from the industries, energy providers, government agencies and local policymakers to discuss and understand the legal frameworks surrounding energy communities. As part of these efforts, for instance, an upcoming workshop will take place to inform citizens about the city's energy initiatives. Following the workshop, informative sessions will be held by the agency for climate transition to provide further details on the legal framework and organization of energy communities.

Differdange's approach to engaging citizens in energy communities serves as a model for other cities looking to transition towards renewable energy and foster collaboration between industries and residents. By empowering citizens and promoting sustainable projects, Differdange aims to create a win-win-win situation that benefits the city, its residents and its industries.

### **Athens, Greece**

Iliia Christantoni, representing DAEM in Athens presented the ongoing projects on citizens' engagement for the climate in Athens. Athens, known for its difficult environmental conditions and frequent heat waves, has been focusing on making the city more green and sustainable. One of the key strategies to achieve this is through citizen engagement and participation. In the recent years Athens has been actively involved in Horizon projects and research towards citizen science and has undertaken various initiatives to engage citizens in climate and environmental issues.

One such initiative is the appointment of a chief heat officer in the city. Athens became one of the first European cities to have a dedicated official responsible for addressing the challenges posed by heat waves. This initiative aims to make the city more proactive, open and green.

Athens is also participating in the 100 Climate neutral and smart cities initiative, which sets targets for reducing stationary energy and promoting green spaces. The city aims to have 70% of the population to be able to reach green spaces within 15 minutes walking distance and 30% of the city area to be covered by green spaces by 2050.

To achieve these targets, Athens is focusing on a cultural change that starts with the school ecosystem. By involving students, teachers, parents and the overall neighbourhood, the city aims to create a dialogue and raise awareness about environmental issues. This approach is seen as a best practice for promoting behavioural change in both students and adults.

The city aims through the CLIMABOROUGH project to create the first energy community in Athens, starting at the neighbourhood level. By involving citizens and incorporating educational features and gamification, Athens aims to mobilize the community and encourage their contribution to environmental policies.

Another aspect with regards to citizen engagement which Athens is currently tackling through the CLIMABOROUGH project is related to buildings and reducing stationary energy consumption. A significant portion of pollution in Athens comes from stationary energy. The city plans to use municipal buildings, including schools, to implement interventions and introduce smart grids and other energy-saving solutions. Data on energy consumption will be exposed via apps to students, teachers and parents, enabling them to see the real-time impact of their actions and encouraging energy-saving behaviours.

Athens is also involved in citizen science projects. One such project involves citizens installing sensors in their homes to measure air quality and temperature. Municipal buildings in selected neighbourhoods also have sensors installed. The data collected from these sensors will provide insights into air quality and inform the city's green infrastructure management.

Additionally, Athens is working on a project to create a registry of trees in the city. Citizens will be engaged to map the trees in their neighbourhoods using a mobile application. This information will be utilized by both citizens and the city administration to manage the green infrastructure effectively.

Furthermore, the city plans to conduct campaigns to measure citizens' exposure and thermal perception during the summer. Participants will wear devices that measure heat exposure, allowing a better understanding of thermal discomfort in different areas of Athens.

These ongoing projects and initiatives highlight Athens' commitment to citizen engagement in addressing climate and environmental challenges. By involving citizens, the city aims to create a more sustainable and resilient future.

### **Pilsen, Czech Republic**

Martina Surynková from the City of Pilsen presented the PINE ecosystem and the living laboratory, which support mobility innovations. Pilsen has created an environment for testing and implementing new mobility solutions with the active involvement of its residents.

The City of Pilsen, located in Czech Republic, is a mid-sized industrial city with a population of approximately 180,000 inhabitants. The city is having strong industrial traditions, particularly in engineering, with companies like Skoda and Pilsen Brewery being well-known in the region. One of the advantages of the city is its proximity to Bavaria in Germany and the capital city of Prague. However, this has also led to a challenge as many people choose to move to these areas, leaving Pilsen with a declining population. To address this issue, the city council has implemented measures to support innovation and development. One such measure is the strategic focus on becoming a centre of mobility and innovation. Pilsen have been recognized as a Smart City which aims to attract innovators, talents, start-ups, entrepreneurs and investors. The city's approach, known as the PINE Innovative Ecosystem, focuses on 4 pillars - talent development, pre-incubation, incubation and acceleration of successful companies.

The PINE ecosystem starts with the talent development from a young age. Building a positive relationship with technical and science education by offering after-school clubs, day camps and training for kindergarten and primary school teachers. The pre-incubation includes support, which caters to teenagers and their changing needs. Various events have been organised where teenagers came up with innovative solutions for real challenges faced by the city. Business education and focus on soft skills and networking were provided as well. As the teenagers grow up, the city provides an incubation program for graduate students who want to start their own companies. This program offers feedback, instruction on formulating business plans and networking opportunities. The city provides modern technology infrastructure, such as offices and coworking spaces. To accelerate the growth, Business and Innovation Centre in Pilsen offers consultancy on financing and funding of innovations. Pilsen Business Vouchers program supports collaboration with businesses and R&D institutions, as well as help companies expand into new markets.

The city also focuses on infrastructure and tools for innovation. The Mobility Innovation Hub project helps develop intelligent mobility solutions. Focusing on dynamic traffic management, autonomous mobility and urban air mobility, the city has implemented a test polygon and digital twin technology for traffic modelling and monitoring air and noise pollution.

One notable development unit within the ecosystem is SIT Drones, which works closely with first responders and traffic police departments. One of the developed tools is a crash inspector that helps traffic police to assess and evaluate serious traffic accidents. The city also provides an open IoT network and open data portal with over 180 datasets for students startups, and companies to utilize.

### **Grenoble Alpes Metropole, France**

Juliana Gonzalez Villamizar from Grenoble Alpes Metropole presented the ongoing projects focused on community engagement in the Grenoble urban agglomeration. By involving citizens in their decision-making processes, Grenoble has successfully fostered a sense of trust and partnership towards sustainable development.

Mobility planning in France has existed for many years and it is mandatory for urban areas with over 100,000 inhabitants. It must be compatible with other planning documents and national laws and it covers not only mobility issues but also energy, air and climate linking mobility with urban planning.

Currently, the mobility authority in GrandAlpe is developing its mobility plan (PDM) for the period 2030-2035. As part of this process, micro PDMs have been created for specific sectors where mobility is a concern. One of these is GrandAlpe micro PDM for the area, which includes south of Grenoble and the cities Echirolles and Eybenes - an ambitious project that aims to transform the land and optimize build-up areas while creating a green and resilient city. The area currently has a heavy reliance on cars, with little space for pedestrians or bicycles. The region is well-connected by public transportation with a tramway line, bus lines and a railway station. It also has major sports facilities. Given the complexity of the urban development project, micro PDMs was created to support the upcoming transformation of GrandAlpe and involve stakeholders such as companies, inhabitants, associations and educational institutes. To facilitate cooperation and partnership, mobility communities were formed. These communities serve as platforms for stakeholders to discuss common issues and interests, such as urban logistics, company mobility plans and pedestrian networks. The goal is to build trust and understand the needs of the inhabitants and users in terms of mobility.

A multi-company mobility plan in GrandAlpe was designed to help companies in the region set up mobility plans for their employees. While there is a specific tool available to assist companies in

setting up individual plans, the goal is to create a collective plan due to the size of the companies involved. The plan involves identifying common problems and needs, sharing feedback and producing common documents. Additionally, companies with more than 50 employees on a single site are legally obligated to introduce measures to improve employee mobility.

Overall, mobility planning in GrandAlpe is a comprehensive process that involves coordination, consultation and partnership with various stakeholders. The aim is to create a sustainable and efficient mobility system that supports the economic development and transformation of the region.

The second segment of the webinars featured presentations from cities Florence, Dublin and Turin, focusing on their mobility initiatives and the role of data and communication in their implementation.

### **City of Florence, Italy**

Alessandra Barbieri and Elena Aversa from Florence shared city's strategies for achieving the carbon neutrality goal by 2030, with a particular focus on mobility and citizen engagement. They highlighted the importance of effective communication in transforming innovative ideas into practical solutions and discussed the ongoing efforts in Florence.

Florence, a UNESCO World Heritage site since 1982, is known for its unique artistic heritage. However, the city also faces challenges in balancing the preservation of its cultural heritage with the need to reduce emissions and work towards neutrality. With a population of around 400,000, Florence sees a significant mobility challenge every day, including commuters, students, workers and tourists. It is essential to be considered the impact of mobility on emissions.

The city's journey towards sustainability began in 2010 when it joined the Covenant of Mayors. This commitment allowed Florence to develop Sustainable energy action plan, with an initial target of reducing emissions by 21% by 2020. Mobility was identified as a significant contributor to emissions, accounting for 34% of the total. Consequently, the city invested in interventions that focused on sustainable urban transport, such as electrification and promoting soft mobility options.

Over the years, Florence has continued to update its strategies. It developed the Smart City Plan (2015), a Sustainable Urban Mobility Plan (2021) and a Sustainable Urban Logistic Plan (2023). These plans led to the development of a Sustainable Energy and Climate Plan. The city recently approved a Climate City Contract, aiming for an ambitious reduction of 81% in emissions by 2030. Mobility remains a key focus, accounting for 78% of impactful actions.

To achieve their goals, Florence leverages three main pathways: increasing public transport usage (PT infrastructures and services, information, ICT, ticketing and pricing), optimizing the private fleet (electrification, last mile ICT services, sharing services, co-design and communication) and reducing congestion (road pricing, city & traffic coordinated management, cyclepaths&cyclepolitana, walking city). The city understands the importance of citizen participation and has involved them in the decision-making process from the beginning. A participatory approach ensures that the city's vision is shared and that all stakeholders are actively engaged.

Florence has implemented several notable projects to support its sustainable mobility agenda. The Smart City Control Room serves as a hub for real-time and coordinated transport management. Different departments and services work collaboratively in this physical space, leveraging a data platform for information collection and analysis. The city also uses a Green Shield System policy, which restricts entrance to the most polluting vehicles through a wide low-emission zone, forbids the access of heavy-duty vehicles with origin/destination outside the low-emission zone and introduces

congestion charge for touristic buses and other vehicles. The policy includes monitoring access to the city through controlled gates.

Effective communication is vital for Florence's sustainability efforts. The city has developed the infomobility app, which acts as a mobility-as-a-service platform. Citizens and visitors can use the app to choose the most sustainable mode of transportation within the city. The app includes real-time public transport data, real-time availability of shared vehicles, unexpected events on the network causing congestion or dangerous situations for drivers, LEZ accessibility, charging points availability, etc.

The city recognizes that citizen involvement is crucial for success. It has launched a participatory process called "Florence towards the climate" and established a climate assembly to gather citizen input. This inclusive approach ensures that the city's strategies align with the needs and aspirations of its residents and users.

As Florence continues its pursuit of becoming a carbon neutral city, the commitment to sustainable mobility and citizen engagement remains at the forefront of its actions. With ongoing projects, collaborations and participatory processes, the city aims to create a green and climate-neutral future for all.

### **Dublin, Republic of Ireland**

Alan Murphy from Smart Dublin presented the "Active Travel & Data" initiative. By utilizing local data at different geographical levels, Dublin aims improve data for Climate Action Plans.

Smart Dublin, an initiative of the four Dublin Local Authorities, is focused on implementing Smart City initiatives in the Dublin region. With a population of around 1.5 million, the region is divided into six smart districts that act as test beds for these initiatives. Recently, the four Dublin Local Authorities published their climate action plans that align with the European Union's focus on green and digital transition.

One major challenge identified in these plans is the lack of localised data. While there is a lot of data available at the national and regional level, hyperlocal data specific to each council within the Dublin region is problematic. This lack of data makes it difficult to effectively implement and monitor the climate action plans.

To address this issue, Smart Dublin is taking a thematic approach to tackle the data problem. Each of the climate action plans is broken down into topics or themes, such as energy and buildings, transport, flood resilience, nature-based solutions, circular economy & resource management, community engagement. For each topic, the team is working with the councils to identify the insights and data needed to support the various actions outlined in the plans. They are also exploring new technologies and data sources that can provide valuable information at both the hyperlocal and regional levels.

One of the first topics Smart Dublin is focusing on is active travel. This topic was chosen because it is tangible and has a significant number of actions associated with it in the climate action plans. A workshop was held to gather insights from stakeholders, including representatives from the councils, the Department of Transport and academia. The workshop highlighted the need to measure the holistic impact of active travel, beyond just kilometres of cycling infrastructure. Desired outcomes included improvements in health, liveability, sustainability, modal shift and safety.

Based on the workshop findings, Smart Dublin is planning to demonstrate the impact of active travel in a more engaging way through interactive visualizations. They aim to capture data at different geographical levels, such as junctions, route, electoral divisions, local authority level, aggregated Dublin region level, to provide a comprehensive view of the impact of active travel (health benefits, economic benefits, emissions reduction, etc.). Additionally, the team is exploring a wide range of data sources, including cycle counters, IoT devices, crowdsourced data and partnerships with companies like Google and bike sharing schemes.

To ensure ongoing collaboration and avoid duplication of efforts, Smart Dublin plans to establish a structured collaboration forum where stakeholders can regularly provide feedback and share their experiences with different data sources. They also have a partnership with EIT Urban Mobility to bring in new innovations and expertise in active travel and other mobility topics.

Overall, Smart Dublin's efforts aim to improve the availability and usability of data for the climate action plans, allowing for better monitoring and measurement of progress. By addressing the data challenge, they hope to facilitate the achievement of climate goals in the Dublin region.

### **City of Turin, Italy**

Gloria Tarantino presented the lessons learned from Mobility as a Service (MaaS) initiatives in Turin. By integrating different transport modes and providing seamless services, Turin has made significant progress towards achieving carbon neutrality.

In Turin, there have been positive local experiences with smart and sustainable mobility. 5T, a public in-house company owned by the City of Turin, the Piedmont region and the Metropolitan City of Turin, has been supporting its shareholders in the governance of smart and sustainable mobility for over 30 years. They have planned and designed smart mobility systems and services while coordinating strategic programs for the MaaS ecosystem in the region and the city.

Mobility as a Service (MaaS) can be a powerful tool to encourage people to change their habits towards more sustainable options. MaaS is a new concept that integrates different modes of transportation into a single app, allowing users to easily plan, book and pay for their journeys. This integrated approach to mobility provides a personalized mobility assistant that offers a menu of options to meet the user's needs. The level of integration in MaaS can vary, ranging from simply providing information about different shared mobility services to a fully integrated system that allows seamless booking and payment across all modes of transportation. Public authorities can incentivize green mobility choices through economic incentives, but creating a well-functioning ecosystem requires cooperation and engagement between public and private actors.

Cooperation and engagement public and private organisations involve designing strategies and policies to achieve common goals. Public-private cooperation ensures a fair and open market and encourages win-win solutions that benefit both end-users and mobility service providers. Engagement with citizens is also crucial, as the city can promote initiatives and provide mobility budgets to incentivize behavioural change, while private actors play a key role in providing valuable services that enable multimodality.

Several successful examples of cooperation and engagement can be seen in Turin. Public bodies have signed memorandums of understanding to specify their shared vision for the future of mobility. Constructive dialogues between public and private actors have led to the development of guidelines for the governance of MaaS in the region. Citizens' engagement projects have shown the

attractiveness of mobility packages that combine different modes of transportation, leading to reduced CO2 emissions and positive user feedback.

A pioneering program called "MaaS for Italy" is currently being coordinated at the national level, aiming to accelerate the adoption of MaaS across the country. This program involves 13 pilots in cities, regions and living labs, engaging both public and private actors in the market. The program promotes an open market and provides public incentives to encourage behavioural change. The long-term goal is to establish a permanent MaaS service that fosters trust and customer loyalty while defining sustainable policies for greener mobility choices.

To promote the "MaaS for Italy" program, various strategies have been implemented. Digital channels, sponsorship, public events, workshops and partnerships have all been employed to spread awareness and gather as many users as possible. The involvement of public transport companies is crucial, as they are considered the backbone of a successful MaaS system.

In summary, the adoption of sustainable mobility choices in Turin and other Italian cities requires public-private cooperation, valuable services and incentives as well as sustainable policies. Through data sharing among actors, mobility trends and their impact on citizen choices can be monitored. By embracing MaaS and promoting greener mobility options, cities like Turin can create a more sustainable and liveable future for their inhabitants.

## **Conclusions**

The webinar ended with final remarks by Graham Colclough (UrbanDNA), who emphasised the importance of mobilising communities of practices in implementing energy and mobility solutions. He highlighted some key insights and perspectives that can guide future sustainable mobility and energy initiatives.

### **1. Context is King**

Every city is unique and it is crucial to understand the specific context of each urban area when implementing energy and mobility solutions. While it's important to acknowledge the differences, the workshop emphasised the need to focus on the similarities to replicate successful solutions in different cities.

### **2. A New Governance Model**

To effectively address the complexities of urban transformation, a new governance model is required. This model should include considerations of the political implications, performance indicators and multiple other factors. By adopting a comprehensive governance approach, cities can ensure sustainable and holistic development.

### **3. Building societal insight engagement and participation along with digitalisation.**

Transformational change can be achieved by bringing together societal insight, active engagement and digitalisation efforts. By combining these elements, cities can enhance citizen participation and leverage technology for innovative and inclusive solutions.

### **4. Shift in funding**

There is a significant shift in funding. Historically, cities have relied heavily on the public sector funds. However, this trend is changing, with estimates suggesting that up to 85% of future funding will come from the private sector. As cities navigate this change, it is essential to understand how to effectively collaborate and work with private entities to finance and implement projects.



## 5. Managing Innovation.

Innovation plays a crucial role but must be managed effectively. By implementing effective management practices, cities can maximise the potential impact of innovative solutions.

## 6. Blueprinting

Capturing both "what" and "how" of successful mobility and energy solutions is vital for sustainability. While technology is often the focus of discussions, the workshop emphasised the importance of understanding and blueprinting the enabling factors and processes that contribute to successful projects.

Overall, the CLIMAWEBINAR #02 provided valuable insights into the role of communities in implementing successful sustainable energy and mobility solutions. By showcasing city experiences and initiatives, the webinar emphasised the critical role of citizen engagement and behavioural change in the transition towards a carbon-neutral future.