REAL SOLUTIONS FOR REAL CITIES

European cities struggle with diverse barriers to innovative transport solutions. EIT Urban Mobility's Rapid Applications for Transport (**RAPTOR**) programme brings public administrations and startups together to pilot agile solutions specifically tailored to each city's needs. The programme has seen a promising impact and continues to pilot projects across Europe.

European cities face diverse challenges. Covering 10.53 million square kilometres, from the Arctic Ocean to the Mediterranean Sea, Europe is rich in geographical and cultural diversity. While this diversity is certainly a strength; it also means that a mobility solution that works well in Iceland is unlikely to meet the needs of citizens in Greece.

While tailored solutions are necessary, cities have traditionally been tasked with solving their mobility challenges internally, with lengthy bureaucratic processes slowing the pace and breadth of progress.

These sometimes opaque procedures are at the detriment of all, as innovative solutions offered by startups and small and medium-sized enterprises (SMEs) have enormous potential to address niche urban mobility challenges.

This facilitation of connections between public authorities and small, private companies is the guiding force behind EIT Urban Mobility's RAPTOR programme. The challenge-based programme encourages cities to identify a mobility challenge and invites startups and SMEs to propose promising solutions. Winners are then awarded funding to develop and pilot their solution in (and with) the city over a five-month period.

WRITTEN BY
BERNADETTE BERGSMA

Adriana Diaz, Interim Director of Innovation at EIT Urban Mobility explains: 'The RAPTOR programme was founded to help small, innovative companies bypass the traditional hurdles that come hand-in-hand with administrative contracts. By not only providing funding, but also facilitating partnerships and offering guidance, these SMEs and startups can solve well-defined cities' challenges while also creating references and opportunities for further scaling the adoption of their solution.'

Since the programme's launch in 2021, 31 pilots have been implemented in 24 cities from 17 countries across Europe. The projects have been varied in scope – focused on addressing the numerous difficulties that cities face in transforming to more sustainable, accessible, and inclusive urban mobility. For example, in 2023 alone, pilots aimed to optimise public transport, micromobility operations, and urban logistics; measure CO2 emissions and bus ridership; and encourage social integration of remote neighbourhoods. The following examples of previous pilots encapsulate the various challenges that RAPTOR programme participants tackle.

Nudgd'ing for active mobility

In 2023, Helsingborg, Sweden, received the 'Cycling Infrastructure Award' from the European Cyclists' Federation, but at the time, only 11% of all mobility in the city was occurring via bicycle. Thus, the focus of Helsingborg's RAPTOR 2023 challenge was a unique one: develop a bicycle culture in the city.

Sweden-based startup Nudgd, and their behavioural-science-fuelled Smart Nudges Mobility platform, utilised 'nudging' to motivate users to engage in active mobility. Targeting the commuting habits of elementary students and their guardians and staff, the pilot exceeded Nudgd's expectations.

Over 2,400 participants from 25 different schools participated; with 39% of participants reporting that they changed, or planned to change, to a more active mode

of transport. Additionally, participants were twice as likely than non-users to switch to active transport. Participants received health benefits from choosing active modes for commuting and Nudgd reasoned that the decreased car traffic would increase safety and air quality near the participating schools.

Instant System for increased ridership

In Akureyri, Iceland, riding the bus is free of charge. However, residents perceive the bus as unreliable and infrequent, preferring private vehicles. The city wanted to change these patterns while also encouraging more active mobility. Thus, Akureyri was paired with Instant System, a Mobility-as-a-Service (MaaS) startup.

Instant System's app-based platform integrates public transport with other mobility options such as cycling, walking, shared mobility, private vehicles for Park & Ride, and on-demand transport for people with disabilities. The app also quantifies each mode's emissions in comparison to a private car, encouraging modal shifts.

After the initial pilot phase, the Municipality of Akureyri opted for a six-month extension, expanding the solution to the whole city and integrating e-scooter availability. Based on the pilot's initial success, Instant System predicts a 10% increase in the shift to public transport, micromobility, or active mobility from private car ridership.

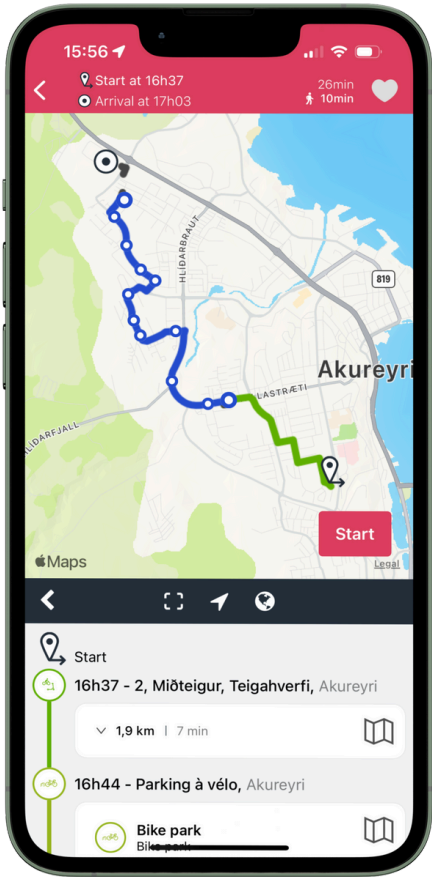*Map of RAPTOR programme pilots (blue pins indicate past projects while yellow pins indicate planned pilots)*

EIT Urban Mobility

A parent using the Smart Nudges Platform to select sustainable transport options for their child's school commute
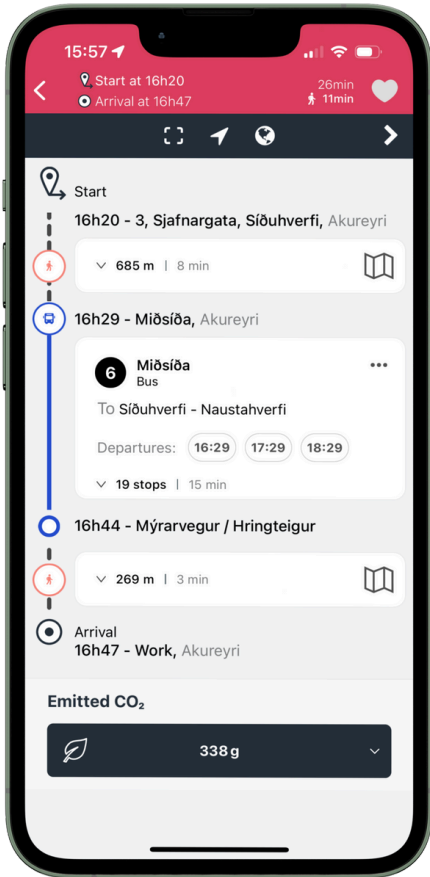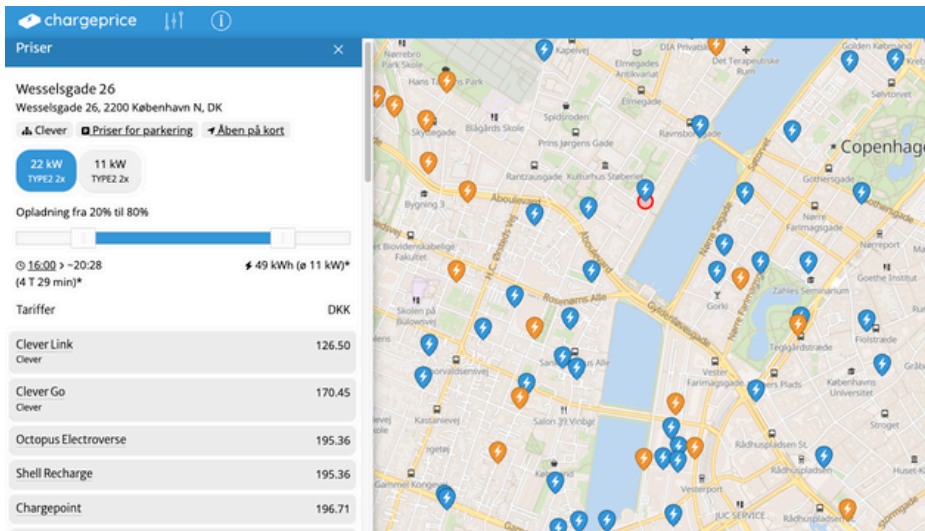
Nudgd AB

Instant System's MaaS platform, showing the CO2 emissions of each journey

Instant System

Getting a consistent Chargeprice

Denmark wants to electrify more than a million vehicles by 2030, and the Capital Region of Denmark offers extensive public and on-street charging infrastructure for electric vehicles (EVs). However, since the price of charging is regulated by the operators themselves, the lack of price transparency can dissuade drivers from making the switch to electric.

As a participant of RAPTOR 2023, the Capital Region of Denmark wanted to provide drivers with a transparent overview of charging prices across all EV charging operators. Startup Chargeprice, with their app of the same name, was awarded the opportunity to put their product to the test.

By the project's completion, Chargeprice had successfully tailored the app to the Danish market and language and removed the necessity for manual price checks, in favour of twice weekly automated updates. As a result, the startup improved data for over 16,600 charging points in Denmark, 900 of which are in Copenhagen.

Throughout the five-month pilot, over 4,200 Danish EV drivers tested the service which allowed them to search based on compatibility, availability, time of day or night, type, and charging speed. This level of customised search allowed for cost savings for drivers of up to 50%, further encouraging the wider adoption of EVs.

Chargeprice's price transparency solution at work in the Capital Region of Denmark

Chargeprice

RAPTOR in 2024 and beyond

This autumn, the third cohort of the RAPTOR programme will begin their pilots in 13 different cities – from Fingal County in Ireland to Konya, Türkiye, each pilot will tackle a pressing mobility issue. Focused on challenges as wide-ranging as encouraging active mobility for seniors, to optimising urban logistics in low-traffic areas, the programme is anticipated to yield innovative results for years to come.