EIT Urban Mobility Youth Ambassador Programme Report

December 2023

The Youth Ambassador Programme

As part of the Activity Plan for 2023, the EIT Urban Mobility RIS Hub Malta conducted a Youth Mobility Ambassadors Program throughout the months of May, August & September 2023, coordinated by the team at the Valletta Design Cluster.

This programme provided a space for young people between 16-25 years of age who live or are citizens of Malta to discuss what Sustainable Urban Mobility means to them.

The primary objectives of the Youth Mobility Ambassadors Program were to:

- Gather insights from young people on sustainable urban mobility in Malta
- Develop recommendations for policy makers and other urban mobility stakeholders
- Promote the involvement of young people in shaping the future of urban mobility in Malta

Ultimately, the Youth Mobility Ambassadors' Programme was to create an Action Plan featuring recommendations to policy makers and other urban mobility stakeholders to take into consideration and possibly implement based on what the youth have suggested.

The Youth Ambassadors were identified through an open call for participants launched via social media in April 2023. Six youths, primarily students in various disciplines and young entrepreneurs, responded to the call and finished the programme. These are:

- Jacob Cachia
- Daniela Pisani
- Quinn Salter
- Keith Azzopardi
- Daniel Cauchi
- Martina Oliva

Sessions and Discussions

Throughout the EIT Urban Mobility Youth Ambassador Programme, the six youth ambassadors engaged in a series of sessions and discussions with various stakeholders, including representatives from the Institute for Climate Change and Sustainable Development (UOM), Adi Associates, the Chamber of Planning (VO), the Environment and Resource Authority (ERA), Transport Malta, Malta Enterprise, and the Planning Authority. These sessions provided a platform for the youth ambassadors to share their perspectives on sustainable urban mobility in Malta and to gain insights into the current initiatives and policies being implemented to address this complex issue.

Themes Discussed

The discussions covered a wide range of topics related to sustainable urban mobility, including:

- Cultural Assumptions and Mobility: The youth ambassadors highlighted the influence of Maltese cultural assumptions on mobility behaviour, such as the preference for personal vehicles and the perception of public transport as inconvenient.
- Car-Dominant Street Design: The predominance of cars in both street design and urban planning was identified as a major barrier to sustainable mobility, leading to congestion, air pollution, and a decline in public health.
- Perceptions of Public Transport: Negative preconceptions about public transport, such as its perceived unreliability and lack of comfort, were discussed as factors hindering its adoption among young people.
- Reality of Alternative Transport: The challenges of using alternative modes of transport, such as cycling and micro-mobility, on car-clogged roads were raised, highlighting the need for improved infrastructure and safety measures.

Stakeholder Engagement

These interactions with stakeholders provided valuable insights into the current landscape of sustainable urban mobility initiatives and policies in Malta.

- National Projects: The stakeholders informed the Youth Ambassadors about national projects such as the Valletta Region Sustainable Urban Mobility Plan (SUMP) and the electrification of the Tal-Linja bus fleet. These projects aligned with the youth ambassadors' vision for a more sustainable and efficient urban mobility system.
- Support for Entrepreneurs: The group discussed the support available for individuals with business ideas related to sustainable mobility. The role of organizations like JAYE in providing guidance and mentorship to young entrepreneurs was particularly emphasised.
- Policy Environment: The Youth Ambassadors expressed concerns about the current policy environment, which they perceived as favouring car usage and hindering the development of alternative mobility options. They advocated for a more balanced approach that promotes sustainable mobility.

Summary of Recommendations

The discussions and insights gained from the sessions and interactions with stakeholders led to the formulation of several recommendations for improving sustainable urban mobility in Malta:

Transitioning to a Low Emission Mobility

While the focus has primarily been on transitioning from conventional petrol and diesel vehicles to electric vehicles (EVs), a holistic approach that addresses the broader mobility landscape is essential.

Pervasive cultural assumptions, deeply ingrained in the Maltese psyche, have fueled the preference for personal vehicles, often overshadowing the environmental and societal consequences of this reliance. These assumptions, often perpetuated by societal norms and infrastructural design, perceive public transport as inconvenient and inferior, while private vehicles are seen as symbols of status and independence. The reality, however, is far more nuanced. While EVs offer a cleaner alternative to conventional vehicles in terms of tailpipe emissions, they inadvertently introduce new challenges. The weight of EVs, while contributing to improved fuel efficiency, places additional strain on road infrastructure and increases the wear and tear on tires and brakes, leading to the release of particulate matter (PM). PM, a microscopic pollutant, poses significant health risks, exacerbating respiratory ailments and cardiovascular diseases.

The emphasis on EV adoption without addressing the underlying cultural assumptions and the hidden costs of increased vehicle weight is akin to treating a symptom while ignoring the underlying cause. To truly foster a sustainable and equitable urban mobility system, a comprehensive approach is required.

Practical recommendations:

- Change road licensing fees to reflect the realistic contribution to pollution by different vehicle types.
- Develop dedicated educational campaigns that highlight a car's actual pollution contributions and health impacts, including PM10 and other non-exhaust emissions and not just CO2 emissions after purchasing.

Considering micro mobility as a solution

Micro mobility, particularly electric scooters and other subscription-based mobility options, offers a promising solution to these pressing issues. Micro mobility can enhance connectivity between public transport stops and provide alternatives to private car use, alleviating congestion and reducing the environmental impact of transportation.

This concept has resonated with the Youth Ambassadors, many of whom are pursuing higher education in European and Nordic cities that have successfully integrated micro mobility into their urban transport systems. These experiences have highlighted the potential of micro mobility to address Malta's transportation challenges.

Prague, with its implementation of red zones for e-scooters, serves as a valuable case study. This initiative has effectively curbed the irresponsible parking of e-scooters on sidewalks and other historical or touristic areas, ensuring a more organized and aesthetically pleasing urban environment.

To effectively harness the benefits of micro mobility, Malta should carefully consider the implementation of regulations and guidelines that promote responsible usage, ensuring the safety of pedestrians and the preservation of public spaces. By carefully integrating micro mobility into its urban transport framework, Malta can pave the way for a more sustainable, efficient, and enjoyable transportation experience for its citizens.

- Reconsider micro mobility as an exciting field of business investment in achieving a sustainable urban mobility plan in Malta.
- Work towards creating coherent micro mobility regulations on a national level that the government can help to standardise but not suppress innovation by the service providers. In doing so, supporting the adoption of new and innovative business models and technologies that respond to the demand.
- Enforcing speed limits withing the appropriate infrastructure to make micro mobility more competitive with cars.
- Nurture the entrepreneurial spirit and support initiatives that encourage the development of sustainable mobility solutions.

Making public transport more attractive

Despite the recent incentives of free public transport services, the Youth Ambassador Programme highlighted the persistent preference among young adults for owning a personal vehicle. This preference stems from a complex interplay of factors.

The Youth Ambassadors discussed the recurring theme of public transport unreliability, citing instances of missed connections, overcrowded vehicles, and unpredictable schedules. These experiences reinforce the perception that public transport is inconvenient and unreliable, making it less appealing as a regular mode of transportation.

Moreover, car ownership is often viewed as a symbol of freedom and autonomy, particularly among young adults who may have limited personal space and privacy. A personal vehicle provides a sense of independence and mobility, allowing individuals to travel at their convenience and without the constraints of public transport schedules or routes.

This preference is further compounded by the financial limitations young adults often face, which make the car a medium for additional personal space and autonomy.

To effectively address the persistence of car ownership mindset among young adults, a multifaceted approach is required. This approach should encompass measures that enhance the reliability and appeal of public transport, address the symbolic value of car ownership, and provide alternative solutions for personal mobility.
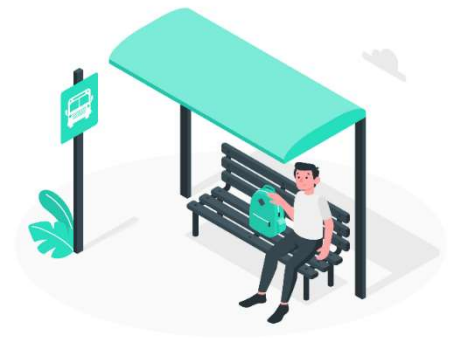
- An increase in the availability and accessibility of on-demand bus services.
- Tal-Linja App to include the ability to provide appropriate leaving times with accurate real-time updates.
- The development of a platform for efficiently informing all relevant stakeholders of any disruptions in road services across Malta and Gozo on a day-to-day basis to avoid unnecessary delays.
- Celebrate non-car-centric lifestyles that prioritise walking, cycling and public transport usage through information campaigns.
- Create more car-free zones and pedestrian-friendly spaces.
- Embrace innovative public transport technologies.

Prioritising the safety and protecting the most vulnerable road users

The Youth Ambassador Programme highlighted the concerns of cyclists regarding debris and litter within bicycle lanes, posing safety hazards and potentially deterring less confident riders from adopting cycling as an alternative mode of transportation.

Funding schemes helping citizens to purchase e-bikes and e-scooters were also a topic of discussion and something that the youth hoped would continue in the future. As the infrastructure for safer commuting with e-bikes and e-scooters is improved, this could see a bigger uptake in youth opting to purchase smaller transport vehicles rather than a conventional car.

- Establish safe cycling infrastructure that is well connected across Malta and Gozo.
- Better maintenance and upkeep of existing bike lanes.
- Better enforcement of speed limits within more pedestrian-heavy spaces to reduce the risk of death or serious injuries to vulnerable road users.
- Invest in micro-mobility infrastructure such as secure parking spots, charging stations and dedicated lanes to encourage wider adoption.

Standardising and Improving Data Availability

The Youth Ambassador Programme identified the critical role of open data in driving innovation and investment in the mobility sector. Abundant data from sensors and cameras across Malta's major roads presents a wealth of untapped potential. Standardised and accessible data can fuel a wave of urban mobility start-ups and catalyse groundbreaking solutions.

Open data empowers data scientists and entrepreneurs to extract insights, inform policy, optimize traffic, and enhance urban mobility. By providing real-time data, Malta can foster innovation and cutting-edge solutions for sustainable urban mobility.
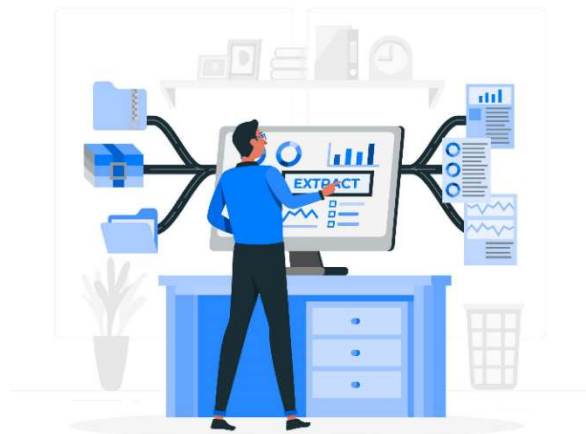
Malta should prioritize data standardisation and accessibility, ensuring data consistency and open-access platforms. Empowering data access enables innovation and solution development.

In addition to standardisation and access, collaboration between data providers, researchers, and innovators is crucial. Open data governance frameworks and knowledge-sharing foster an environment where data transforms into actionable insights and innovative solutions.

By embracing open data and collaboration, Malta can unlock the potential of the mobility sector and establish itself as a leader in sustainable urban mobility innovation. This transformation will enhance urban efficiency, liveability, and contribute to a more sustainable future.

- Democratising the availability of traffic and road data to incentivise innovations to flourish within the urban mobility sectors over the coming years.
- Standardising traffic and road data to make it more accessible and easier to analyse and manipulate, further levelling the playing field when it comes to new operators in Malta's urban mobility economy.

Implementation Recommendations on Standardising and Improving Data Availability based on research and recommendations by Youth Ambassador Keith Azzopardi

1. CEN Transmodel

The Youth Ambassador Programme mentioned several system recommendations that can be implemented to improve the urban mobility landscape.

The CEN Transmodel, a prominent open data specification endorsed by the EU, serves as a pivotal tool in standardising the publication of transport schedule information. Initially focused on public transport, it is extending its reach to include taxis and car-sharing services, encouraged by EU directives aiming to enhance interoperability. Complementary standards built upon CEN Transmodel include SIRI, NeTEx, and OpRa, each utilizing an XML-based format for information exchange. SIRI facilitates real-time updates on transit systems, NeTEx streamlines trip planning for end-users, while OpRa captures historical data for valuable research insights.

In the context of Mobility as a Service (MaaS), the promise of an interconnected travel network relies on a communication layer. CEN Transmodel aims to be this layer, fostering seamless interaction between MaaS providers and transport service operators. Encouraging government entities in public transportation to adopt standards like CEN Transmodel can catalyse innovation and augment fleet capabilities for smaller operators.

The proposal envisions a future where accurate and reliable data, standardised through CEN Transmodel, encourages collaboration between operators, leading to coordinated shared rides and efficient MaaS applications. The benefits of Transmodel as an EU standard include easy access to experts, market expansion opportunities, time-saving tools, and open-source validators ensuring compliance.

While Transmodel is well-established for public transit, considering standards like General Transit Feed Specification (GTFS) or Mobility Data Specification (MDS) for smaller transport modes may enhance the inclusivity of the system. This approach aligns with the evolving landscape of urban mobility, offering flexibility and adaptability for a sustainable and interconnected future.

2. GTFS and GBFS

General Transit Feed Specification (GTFS), akin to NeTEx, was initially conceived by Google to standardise the publication of transit schedules, making them compatible with Google Maps. This pioneering project in transportation interoperability is widely adopted, particularly for its integration with Google Maps. GTFS operates through a set of files, adhering to its specified format, describing schedules published by transport operators. Consumers, such as Google Maps, extract necessary data by parsing these files in line with the standard. At a broad level, GTFS collects data on stops, routes, trips, stop times, calendars, and agencies. Regular updates, referred to as "GTFS Feed," are crucial due to schedule changes.

This process happens behind the scenes for most places, but some cities publish the feed on the internet, so that it can be consumed by any company that wants to make use of the transit schedules. MobilityData is a company that compiles a list of cities openly publishing data, emphasizing GTFS's broad adoption. GTFS Real Time, an extension, offers real-time updates on schedule execution, mirroring SIRI in the Transmodel realm.

General Bikeshare Feed Specifications (GBFS) expands GTFS beyond public transit, enabling providers of various vehicle types to publish fleet information in a standardised format, similar to GTFS Real Time. GBFS encompasses bikes, scooters, and cars, serving operators in the vehicle-sharing business model.

GTFS and CEN Transmodel offer similar benefits as interoperability standards. These standards are versatile and can be used together, with open-source projects acting as a bridge between the two models. The flexibility of GTFS contributes to its widespread applicability, complementing the vision of interconnected and standardised urban mobility.

3. MDS

Mobility Data Specification (MDS) is a standard supported by the Open Mobility Foundation (OMF), fostering collaboration among government entities, mobility operators, and software providers. As an API-based model, MDS offers separate APIs for various use cases and data, providing better segregation compared to the broad CEN Transmodel. Though initially focused on micro-mobility, MDS is gradually expanding to ridesharing services.

MDS features six APIs for sharing different data types, including data from operators and cities, reinforcing interoperability by requiring operators to expose a General Bikeshare Feed Specification (GBFS) feed.
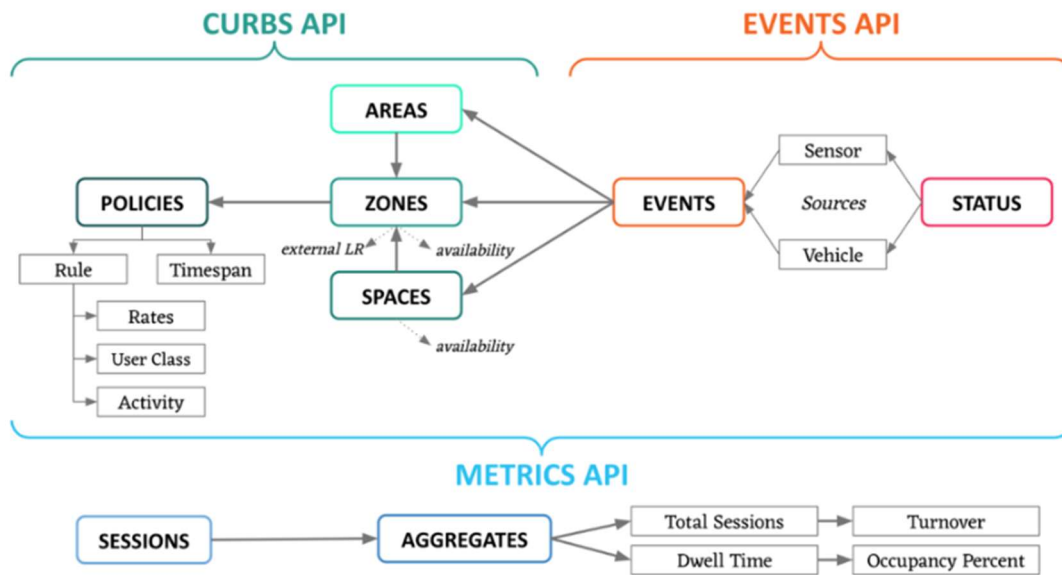
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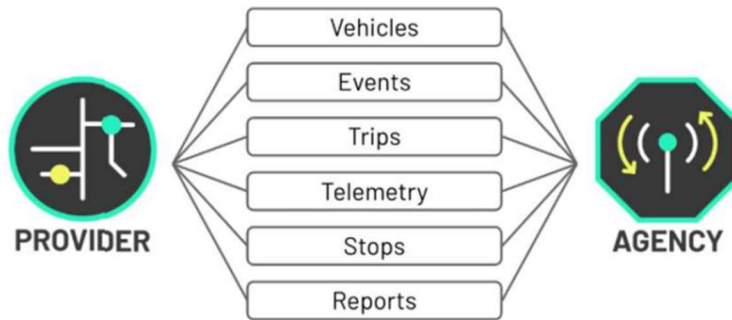
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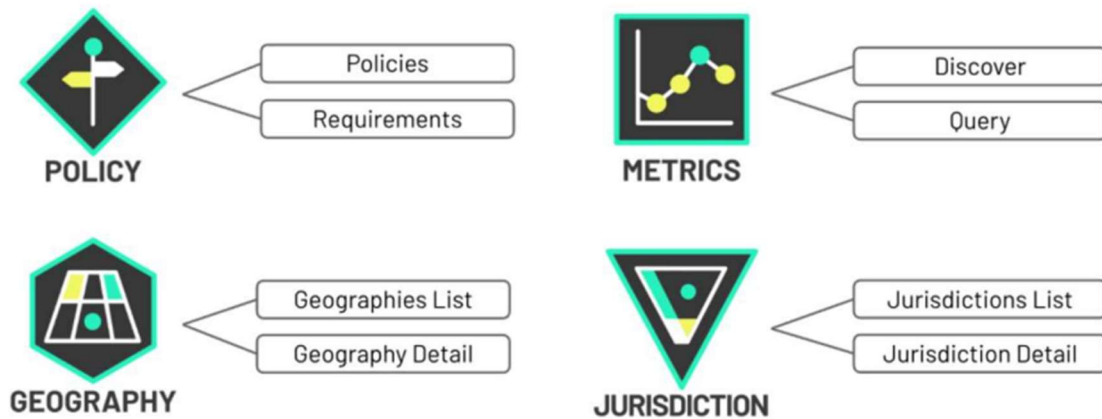
Curb Data Specification (CDS), another OMF specification, is API-based and intended to share information about curb use and regulation. Although less adopted, CDS complements MDS due to their shared design philosophy and maintenance by the same organization. CDS consists of three APIs.

The APIs in MDS and CDS facilitate two-way communication between government entities and operators, with governments providing valuable information like regulations. This approach promotes interoperability and encourages a push towards multi-modality. MDS, with its adoption in various cities and a focus on different transportation modes, serves as a complementary element in comprehensive interoperability projects.

4. TOMP-API

TOMP-API is strategically crafted to facilitate communication between Transport Operators (TO) and MaaS Providers (MP), streamlining the setup process for operators. This standardisation allows operators to efficiently serve end-users across multiple MaaS providers, offering a comprehensive solution with specific modules for sharing operator information, planning, booking, trip tracking, payment, and support.

In the broader context, TOMP-API aligns with the vision of establishing a MaaS ecosystem spanning diverse providers and transportation modes. The societal benefits promised by MaaS, especially in enabling multimodal transportation, are significant.

For startups, TOMP-API simplifies MaaS application development, allowing users to choose from various operators with minimal programming code. It also facilitates international expansion where the standard is adopted.

Operators, by integrating one API, can access a broader user base through existing MaaS applications, potentially eliminating the need for operators to maintain their own applications as MaaS adoption grows. While integrating TOMP-API becomes the logical choice in the established ecosystem, initial incentives, such as national incentives or publicly funded MaaS applications, can encourage operators to familiarise themselves with the standard. This proactive approach sets the foundation for a cohesive and interoperable MaaS landscape.

5. Traffic Flow Data

Transport Malta currently releases real-time traffic flow information for key roads, a valuable resource given Malta's small size and dense road network. The island's manageable size enables modelling the entire traffic situation with a relatively low number of data points. Expanding this effort to cover a substantial portion of the island is a low-cost endeavour.

Accurate modelling of traffic data, especially at major junctions, enhances trip duration estimates, benefiting both single-person taxi operators and multi-segment trips. While not every company may delve into advanced AI for traffic prediction, there is a market gap for such a service. Historical data retrieval could bolster existing efforts, and a competition for predictive traffic models in Malta would aid government planning and startups. Encouraging a culture of Research and Design, particularly in AI and tech, provides long-term support for startups in the evolving landscape.

Final Remarks

Transport minister himself Dr Aaron Farrugia recently put forward his views on how traffic in is impacting citizens' quality of life, connectivity, and trade. He also recognised how the monitoring of traffic and its impact on the mental health of society especially in densely populated areas, is something we must address collectively.

The EIT Urban Mobility Youth Ambassador Programme has presented a comprehensive set of recommendations for improving sustainable urban mobility in Malta. These recommendations, informed by the perspectives of young people actively engaged in the mobility discussion, provide valuable guidance for shaping Malta's future mobility landscape.

Malta possesses the potential to become a leader in sustainable urban mobility. Its compact size, dense population, and commitment to environmental sustainability make it an ideal setting to test and implement innovative solutions. By taking decisive action and embracing the insights of the younger generation, relevant stakeholders can create a more sustainable, equitable, and liveable country for all.