








## INNOVATION FUND

**Advancing safety and sustainable environmental transportation (ASSET)****Parent project: Harnessing Innovative Technologies to Support Resilient Settlements on the Coastal Zones of the Caribbean (HIT RESET Caribbean)****PROJECT COORDINATOR** University of Trinidad and Tobago (UTT), Trinidad and Tobago**PARTNER** Upward Innovation Technologies Ltd, Trinidad and Tobago**LOCATION** Trinidad and Tobago**PERIOD** January 2023 - December 2024**EU FUNDING** EUR 399,372.15**SECTOR**

Transport

**KEYWORDS**

Coastal settlements, environmental research, digital technologies, public transportation, taxis, gender safety

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www.oacps-ri.eu**CHALLENGE**

The transportation system in Trinidad and Tobago is vulnerable to adverse impacts of climate change, particularly sea-level rise and changes in weather patterns which have resulted in more intense flood and storm events. This has led to severe damage to road systems throughout coastal areas. Concomitantly, the transportation sector is a significant and growing contributor of greenhouse gas (GHG) emissions which contribute to climate change, being the third highest contributor to GHG emissions in Trinidad and Tobago.

These factors necessitate a well-functioning transportation system that is efficient and climate-resilient, but the current system has also been plagued with unsafe practices for both commuters and providers of this service. The social issue of safety in the public transportation system has become increasingly concerning as the number of violent crimes committed against commuters and transport providers has drastically escalated. Women in particular face significant risks and violence when utilising public transportation, which exacerbates their vulnerability and hinders their ability to travel safely.

**PERSPECTIVES**

The public transportation system in Trinidad and Tobago serves as a vital conduit for tens of thousands of commuters every day and plays a crucial role in driving economic growth, providing access to markets and essential services, fostering job creation, supporting the well-being of vulnerable populations, and establishing connections between urban and rural areas.

The project aims to improve safety, accessibility and environmental sustainability of the public transport system through expanding and updating the mobile app 'TTWeSafe', a free commuter safety and security app.

**JUSTIFICATION**

Improving public safety can result in greater utilisation of public transport services by citizens, particularly women and children, as they are currently the most vulnerable to crime associated with public transport. Addressing the safety challenges faced by women in public transportation is essential for promoting gender equality, ensuring inclusive access to transportation services, and creating a conducive environment for all members of society to participate fully in economic and social activities. In addition, it can help reduce the dependency of citizens on using their private vehicles and, in so doing, directly reduce GHG emissions and other air pollutants, traffic congestion and noise pollution.

The current taxi system plays a significant part in the public transportation system for both commuters and service providers (taxi drivers), which in turn contributes to the economic health of the country. To ensure the long-term viability of Trinidad and Tobago's taxi system, measures must be put in place, such as enhancing regulatory frameworks, investing in infrastructure improvements, integrating technology solutions, providing financial support, implementing safety measures, promoting sustainability initiatives, and fostering collaboration among stakeholders.





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METHOD

The project utilises both quantitative and qualitative research methods to guide the enhancements and expansion of the TTWeSafe mobile application (app). Data to guide the updating and expansion of the app will be collected through focus group sessions with commuters and taxi-drivers (baseline survey) and an end-line survey conducted through the app.

The collected data will be presented in a comprehensive data dashboard format, facilitating further academic research and decision-making by stakeholders. It will be disseminated through research papers in academic journals and presentations, such as webinars.

Furthermore, the information gleaned from the app and surveys will be utilised to estimate the carbon footprint of the taxi public transportation system, aiding in the establishment of its environmental impact.

With the use of a mobile application, TTWeSafe commuters will be able to safely use privately-owned public transportation: they will be able to verify the driver and the vehicle before beginning their commute. In addition, the user will be able to send a secure message to anyone on their contact list of when they have entered and exited the vehicle. The mobile application will also provide a platform to increase the interest of the population to use public transportation. This can result in promoting safe and environmental-friendly transport



INNOVATIVENESS

- The community-oriented, needs-based digital technology serves extensive and meaningful relationships among stakeholders in the transportation system inclusive of groups that are often overlooked.
- The data-driven app encompasses challenges for sustainable development, climate change resilience and quality of life.



WeSafeTT app allows users to scan a QR code to verify the legitimacy of taxi drivers

EXPECTED RESULTS

Impact

- Increased use of safe and privately-owned public transportation using more environmentally sustainable alternatives to gasoline in Trinidad.

Outcomes

- Improved accessibility by commuters and taxi drivers to safe and more environmentally sound form of privately-owned publicly available transport.
- Increased interest by policy makers in promoting safe and environmental-friendly transport.

Outputs

- Updated and expanded TTWeSafe transportation app for use by commuters and taxi drivers.
- User-friendly data dashboard on transport and GHG emissions for policy makers, commuters and taxi drivers.

**HIT RESET** is implemented by UWI in partnership with CDEMA and AdeKUS. **HIT RESET** provides support for projects that develop innovations to increase resilience in coastal communities of the Caribbean and strengthens institutions', national and local governments' ability to leverage information and knowledge for policy amendments.

HIT RESET supports 9 projects implemented in Barbados, Dominican Republic, Jamaica, Saint-Lucia, and Trinidad & Tobago that focus on:

- Digital and modelling technologies utilised by coastal development agencies and high-level decision makers in CARIFORUM countries to predict the impacts of climate change and natural disasters, and to plan and manage coastal communities.
- Government entities, coastal development agencies and coastal communities in CARIFORUM countries developing urban planning policies and/or plans that are conducive to the use of digital and modelling innovations for sustainable coastal development.



WeSafeTT app users can quickly send out a distress message to their emergency contact through a SMS which indicates their location

