Project name: Popular-to-Popular Transport Integration in Sub Saharan Africa: Case of Rwanda and Ghana (POINT)

Summary

This Project addresses the ***equitable, affordable and reliable access to livelihoods, services, leisure activities, and opportunities*** theme of the VREF ARP-MAC call. In order to make African cities better and healthier places for everyone to live, work, and thrive—especially underprivileged individuals and groups—it seeks to shift research, policy, action, and investment toward focusing **on popular-to-popular transport infrastructure/mode integration in urban and transportation planning**. In many African cities, the primary means of transportation are popular or informal networks and systems, such as walking, bicycling, rickshaws or motorcycle taxis, and minibuses (paratransit). They are frequently organized, made possible, and carried out by a number of dispersed actors who lack clear leadership and a definite ideology. They also typically lack the necessary financial and other resources to integrate the underlying infrastructures to facilitate easy access. In the meantime, national and local leaders, along with their international development partners, tend to ignore the systems in favor of investing in large, carbon-intensive projects like parking lots, highways, and other traffic systems that favor private motorized travel and benefit a privileged few. However, there is growing momentum, including within VREF circles, about how to embrace, engage, and integrate popular transportation into urban and transportation planning to support equitable, affordable, and dependable access to livelihoods, services, and opportunities. This is due to the growing recognition that popular transportation will continue to play a significant role in the system for providing collective mobility in African cities. Although this is a welcome change, most of it is **concentrated on integrating some popular modes of transportation (especially paratransit or minibuses) into formal modes or scheduled service operations, with little attention paid to popular-to-popular modes of transportation and infrastructure integration, which has the greatest potential to increase equity and lessen social exclusions related to transportation because popular modes of transportation typically serve underprivileged communities and populations.**

Our Consortium intends to contribute to limited research on popular-to-popular transport mode integration in mobility and urban planning in Africa by using a bottom-up decolonial systems intelligence framework to analyze the spatiotemporal contexts and situations—the mobility practices, perceptions, preferences, restrictions, habits, understanding, and experiences—as well as the inventive and creative ways people adapt to the current realities in the secondary cities of Kumasi and Huye, Rwanda, and Ghana. However, in order to facilitate comparison, we will also examine the circumstances of the primate cities of Accra and Kigali. Though they are rarely included in policy and planning processes where they can offer their knowledge and ideas to effect reforms, the voices and experiences of those who depend on the popular transportation systems to get by and as a source of livelihood will be central to the decolonial systems intelligence framework. Ghana and Rwanda have varying degrees of informal urban transportation, with Ghana leaning toward a higher level than Rwanda, they make intriguing cases to examine together. Secondary cities were chosen to offset the

strong bias in urban mobility research toward primate cities in Africa. To facilitate comparison, we will also examine the circumstances in Accra and Kigali, the capital cities.

The study will analyze the spatiotemporal contexts and situations of the chosen cities with a focus on the central question of how to lessen the challenges associated with safe, equitable, affordable, and reliable access that are linked to fragmented popular transport infrastructures. It will also assess lessons for guiding research, policy, action, and investment towards coherent infrastructure configuration. Enhancements to one piece of infrastructure frequently result in improvements to other areas as well. Therefore, focusing on infrastructure change points that can simultaneously stimulate multiple desired structural, systemic improvements and maximize benefits across the entire travel chain is one of the study's goals. We are examining these issues at a time when the most severe effects of social exclusions related to mobility are felt by people who live in historically, geographically, socially, and economically marginalized informal settlements—or, more accurately, "popular neighborhoods." Consequently, we will examine the relevant issues regarding their coping mechanisms and the types of infrastructure modifications that can have broad and long-lasting effects, especially for women, children, the elderly, and people with disabilities in these communities.

Project aim

The aim of the Project is to establish a cutting-edge, interdisciplinary, global-local research and policy-oriented consortium that will produce data, systematized analyses, models, and policy frameworks for investigating the possibilities of embracing, integrating, and engaging with the current marginalized popular mobility realities in order to improve fair, reasonably priced, and dependable access to opportunities, services, and livelihoods in African cities. We also aim to concentrate on historically, geographically, socially, economically, and environmentally disadvantaged groups and communities that are more likely to be affected by the system's issues because they rely heavily on popular modes of transportation for daily needs and as a source of income.

Project objectives

The following are the Project's objectives:

1) Pilot, document and hone decolonial systems intelligence thinking potential to generate ideas to support popular-to-popular transport integration research and policy in Africa;

2) Contribute to the limited cross-city and regional comparative research on the spatiotemporal contexts and situations of disadvantaged groups and communities in secondary cities.;

3) Provide opportunities, support next-generation scholars and generate new knowledge for improving curricula, and urban and mobility planning education in Africa;

4) Leverage and engage our policy networks to develop their strategic capacity for the much-needed reimagination of mobility policy-making in Africa to realise SDG11 of making cities and human settlements inclusive, safe, resilient and sustainable;

5) Explore and access new funding to consolidate and extend the consortium to continue moving research, policy, action, and investment to enable equitable access to safe and pleasant mobility experiences in Africa's cities.

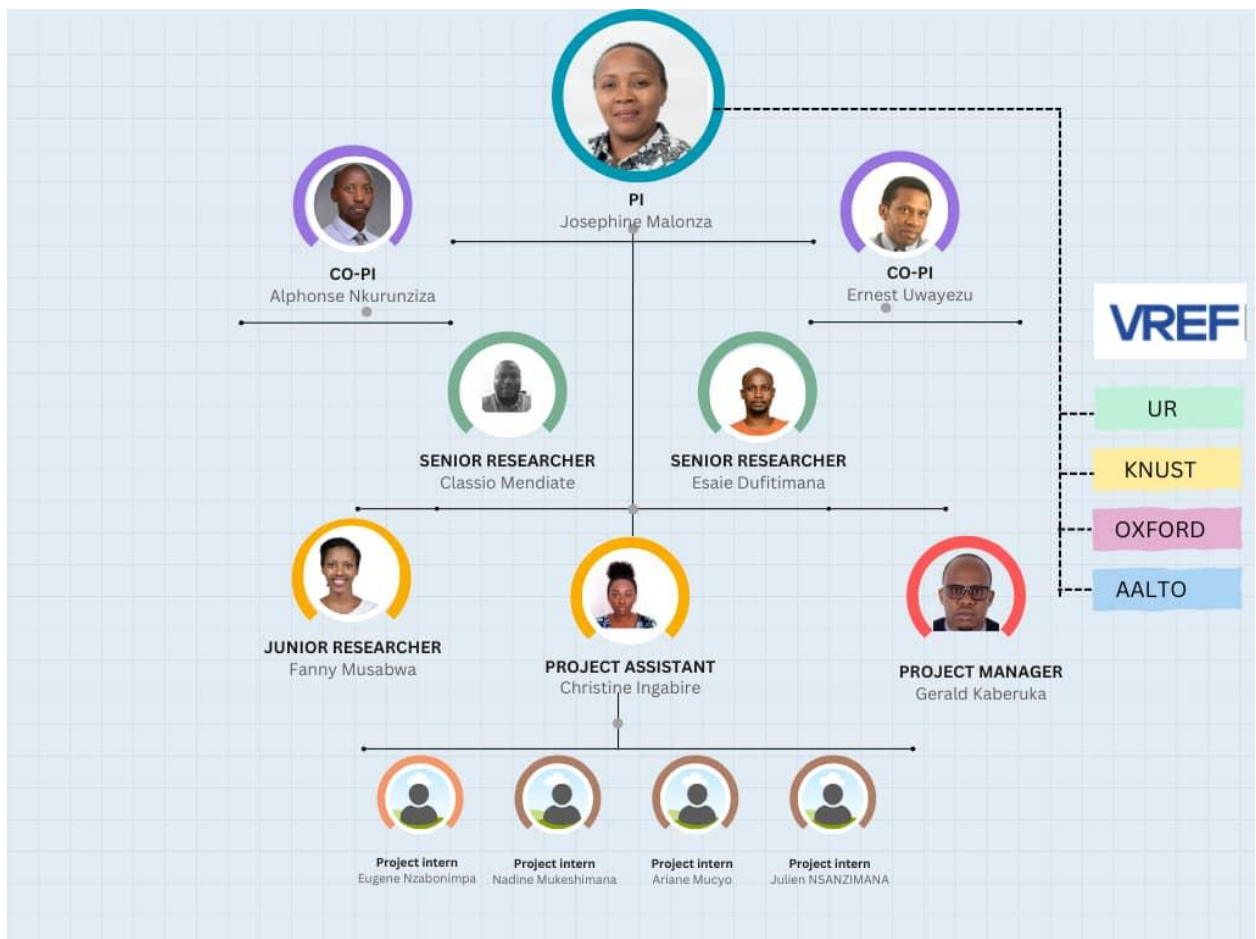## TEAM

Consortium leader/ Project PI:

Dr. Josephine Malonza, Senior Lecturer and Dean, School of Architecture and Built Environment, College of Science and Technology, University of Rwanda

Host institution: University of Rwanda

Consortium partners:

- **Kwame Nkrumah University of Science and Technology (KNUST), Ghana**
- **University of Oxford (UO), UK**
- **Aalto University (AU), Finland.**

University of Rwanda's Project team

Dr. Alphonse Nkurunziza: Director of the African Centre of Excellence in Transport & Logistics, in the College of Science & Technology, University of Rwanda.

Dr. Ernest Uwayezu: Senior Lecturer and Deputy Dean, School of Architecture and Built Environment, College of Science and Technology, University of Rwanda.

Dr. Classio Mendiate: PhD in Transport Engineering. He has research interest in travel behavior and mode choice modeling.

Mr. Esaie Dufitimana: PhD in Computer Science – Ongoing. MSc in Geoinformation Science and Earth Observation. Research on Machine Learning, Data Science, Remote Sensing, GIScience, urban socio-economic disparities, and public health.

Ms. Fanny Musabwa: MSc in Environmental Economics and Natural Resource Management-ongoing. Lab Technician in Transport and Logistics

Christine Ingabire: is the Project Assistant to the PI. She holds 2 Master degrees, a Master of Arts in Development Studies and a Master of Education in English Education, and a Bachelor of Arts in English/Linguistics. She has 8 years exeperience as she has been on different Projects as Project Adminsitartor or Project Assistant.

Mr. Gerald Kaberuka: is the overall Project Manager. He holds an MSc in Public Health and has over 10 years experience in project management in the University of Rwanda.

The Project has five project interns, for capacity buidling.

Eugene Nzabonimpa: a Transportation Engineering Graduate at University of Rwanda, Currently Research Assistant at the University of Rwanda, Intern in Rwanda Ministry of Infrastructure in 2023, presented in walk21 Kigali.

Nadine Mukeshimana: a Transportation Engineer from the University of Rwanda, a Research Fellow at the Urban Electric Mobility Initiative.

Ariane Mucyo: a Transportation Engineer from the University of Rwanda who is currently working with UEMI as a research fellow.

Emelyne Iradukunda: an urban planner with a Bachelor of Science with honours in Geography. She's currently doing a professional internship in the City of Kigali One Stop Centre.

Julien NSANZIMANA: is urban planner with a Bachelor of Science with honours in Geography. He is currently pursuing an MSc in Geo-Information Science for Environment and Sustainable Development (GI-ESD).