



REGIONAL TRAINING PROGRAM FOR LATIN AMERICA AND THE CARIBBEAN 2022

Key aspects towards the advancement of e-mobility in the region: Charging Infrastructure & Electric Buses

Transport is one of the sectors that contributes the most to global GHG emissions. Thus, the electrification of transport has become an important policy goal for local and national governments around the globe aiming at contributing to the achievement of the Paris Agreement. In Latin America, transport is responsible for one third of the region's GHG emissions. Hence, several countries and cities have launched their e-mobility strategies and are starting their application. However, the transition to electric mobility poses a series of challenges that need to be taken into consideration for a successful long-term implementation.

SOLUTIONSplus is an EU-funded project that brings together highly committed cities, industry, research, regional networks, UN Agencies, and finance partners to establish a global platform for shared, public, and commercial e-mobility solutions to kick start the transition towards low-carbon urban mobility. The project encompasses city level demonstrations to test different types of innovative and integrated e-mobility solutions, complemented by a comprehensive toolbox, capacity development and replication activities. Demonstration actions are being implemented in 10 cities in Africa, Asia, Europe, and Latin America.

The Global Electric Mobility Programme (GEMP) is the first global coordinated effort to promote and accelerate the uptake of electric mobility in developing countries. The GEMP is a joint effort between the Global Environment Fund (GEF), the United Nations Environment Programme (UNEP), the International Energy Agency (IEA), the Asian Development Bank (ADB), the SOLUTIONSplus Project, and European Bank for Reconstruction and Development (EBRD). The aim of the Global Electric Mobility Programme is to support countries in overcoming the barriers of electric mobility projects through a combination of technical assistance and investment. Moreover, the Global Electric Mobility Programme counts on four Regional Support and Investment Platforms. The GEF-7 Regional Platform for Latin America and the Caribbean is being implemented by the Centro de Movilidad Sostenible (CMS) and UNEP.

In this context, the SOLUTIONSplus team and the GEF-7 Regional Platform, have put together a Regional Training Program that responds to the capacity building needs and knowledge gaps identified on the Training Needs Assessment conducted in 2020. The contents have been developed by specialized institutions that are either SOLUTIONSplus consortium members or partners institutions. Each unit has a lead institution and key contributors, all selected based on their expertise in the topic and their capacity of providing relevant insights.

The second release of the Regional Training for Latin America and the Caribbean will take place in September and October 2022. The content will focus on charging infrastructure for electric vehicles, planning and operation of electric buses and business models for the transition towards e-mobility in the region. Local capacity building in relation to these topics is one knowledge gap identified in the during the project assessments and implementation in 2020.

Understanding that many cities from the region are facing similar challenges, SOLUTIONSplus and the GEF-7 Regional Platform have joined forces with other projects and programs working

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in the region to have a larger outreach and a greater impact. Thus, the Regional Training for Latin America and the Caribbean 2022 counts on the collaboration of Transformative Urban Mobility Initiative (TUMI), Decarbonizing Transport in Emerging Economies (DTEE), ZEBRA C40, Sustentar Association and Technological University of Pereira (UTP).

Target audience

Understanding that the electrification of transport requires the collaboration of multiple actors, this program is designed with a multi-stakeholder approach. Thus, national authorities, city officials, government agencies are encouraged to participate together with research centers, vehicle manufacturers and logistics operators.

Program structure

The Regional Training for Latin America and the Caribbean 2022 consists of two modules of 1-week each. Each module includes five thematic units presented in 2-hour webinar sessions. Each session will consist of a theoretical part, the presentation of case studies from Europe, Latin America and the Caribbean and a Q&A section, in which the speakers will respond to the questions of the audience. Participants can choose to attend individual sessions depending on their schedule availability and interest. However, a participation certificate will only be extended to those attending at least 80% of the units of a module.

Language: Spanish and English (simultaneous translation available)

MODULE 3: CHARGING INFRASTRUCTURE

Dates: September 26th – 30th, 2022

Registration link: https://renata.zoom.us/webinar/register/WN_IYuYg4LEQnGso43GKhybRg

In the next decade, the number of electric vehicles (EVs) on our roads will likely rise substantially, and the EV infrastructure to support the developing fleet is crucial for that shift. A wide array of solutions is needed, from slow charging at home and depots, to “on-the-go” charge-ups for utility and public vehicles that need easy and convenient solutions as refueling an internal combustion engine (ICE) vehicle today.

The content of this module is divided in five units. The first unit aims to contextualize how to incorporate charging in urban planning. The second one depicts all about standards and the need to guaranteed interoperability. The third unit focuses on provision fundamentals and the fourth discusses all about EV charging solutions, points: characteristics, installation, and business models. Finally, Unit 5 will be an interactive session to discuss takeaways and upcoming challenges.

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Unit	Lead Institution	Date and Time
<p>Unit 1: EV Charging and Urban Planning</p> <p>This unit focuses on charging and the urban planning perspective. It starts by discussing how charging should be incorporated in urban planning and in Sustainable Urban Mobility Plans. Then, it discusses the diversity of charging points and proper installation in public places. Finally, business models around charging are discussed.</p>	RUPPRECHT	<p>September 26th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>
<p>Unit 2: EV Charging Standards</p> <p>This unit aims to start the discussion on charging standards. More specifically, it aims to provide an overview of different connectors, grid operations, regulation & management, and all about existing standards and Charging protocols.</p>	FIER	<p>September 27th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>
<p>Unit 3: Charging Infrastructure Provision</p> <p>This unit discusses the provision fundamentals for charging. It starts by how to estimate and forecast demand and then goes on to analyze the localization of charging points and the process of setting up charging infrastructure.</p>	IDIADA	<p>September 28th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>
<p>Unit 4: EV Charging Solutions</p> <p>This units aims to present all existing charging approaches and how suitable each solution is for different type of vehicles and business actors. It provides an insight to the technology associate to each approach and all challenges and opportunities associated.</p>	UEMI	<p>September 29th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>
<p>Unit 5: Interactive session</p> <p>As closure for the module, this session brings together experts, policy makers and private sector to comment and reflect on the topics discussed during the module</p>	GEF-7 Regional Platform (UNEP-CMS)	<p>September 30th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>

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MODULE 4: ELECTRIC BUSES

Dates: October 24th – 28th, 2022

Registration link: https://renata.zoom.us/webinar/register/WN_kedK-5QuR_m7bUhScpD3UA

In the transition to e-mobility, mass transit plays a key role due to its potential for CO2 emission reduction but also because it opens the possibility to new operational and business models. However, the electrification of e-buses is a major endeavor that comes with big challenges and a lot of considerations that need to be analyzed beforehand for proper planning and implementations.

This module aims to cover all the relevant topics on e-buses starting from the importance of making the shift, following with how to plan operations and infrastructure. Then it discusses the current vehicle offer for the region and its suitability for the Latin-American and the Caribbean context. The module ends with a thorough discussion on all the details to be considered for procurement, financing and business models.

Unit	Lead Institution	Date and Time
<p>Unit 1: Why Shifting to Zero-Emission Public Transport</p> <p>This first unit aims to address a vision: why electrification of public transport plays such a key role for achieving climate and sustainability goals. The need to make transport networks economically viable and even competitive is presented, and emphasis in the post COVID-19 context is brought to attention. Then drivers and barriers for the transition are discussed.</p>	UN-HABITAT	<p>October 24th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>
<p>Unit 2: Implementing E-bus Operation</p> <p>This Unit focuses on how to plan operations of electric e-bus fleets and networks. It explains which are the challenges and how to overcome barriers to ensure a smooth and efficient operation of public transport services.</p>	UITP	<p>October 25th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>
<p>Unit 3: Charging Infrastructure Planning</p> <p>This Unit aims to discuss how to plan the charging infrastructure to support operations with electric buses. Which are the different approaches and strategies for e-bus charging? Which available tools and technologies can support this process to ensure operational standards?</p>	IDIADA	<p>October 26th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3</p>

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Unit 4: E-Bus Offer in Latin America This Unit aims to present the diversity of vehicle types available for public transport and make a practical comparison in order to portray pros and cons and therefore the suitability for specific contexts in the region.	CMS	October 27th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3
Unit 5: Procurement, Financing and Business Models This Unit provides important aspects to consider when planning for, procuring, and commissioning electric buses, presenting the different contracting options and modalities of procurement processes' considerations.	SIMUS	October 28th 08:00 - 10:00 GMT -5 10:00 - 12:00 GMT -3

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