



TUMI INITIATIVE'S TRANSFORMATIVE STORIES

MUNICIPALITY OF FLORIANÓPOLIS, BRAZIL: WORKING TOWARDS AN INTEGRATED PUBLIC TRANSPORTATION SYSTEM

Like many other Brazilian cities, Florianópolis faces challenges concerning traffic congestion. With an aim to transform its transportation system and mobility patterns to be less automobile-dependent and more people-oriented, Florianópolis takes an integrated and connected approach to sustainable urban mobility.

ABOUT FLORIANÓPOLIS

The mid-sized city of Florianópolis in Southern Brazil is the capital of the State of Santa Catarina. Florianópolis is an important education center and is a hub for economic and touristic activities in the Florianópolis Metropolitan Area (Região Metropolitana de Florianópolis, RMF). The city center is situated on an island and connected to the mainland via Pedro Ivo Campos Bridge and Colombo Salles Bridge.

As with many Brazilian cities, traffic congestion is chronic in Florianópolis, with high automobile ownership and use. Between 2010 and 2014, the share of car trips in the city increased by 4.51 percent of the modal split and the share of motorcycle trips increased by 5.85 percent at the same time. Florianópolis has about 0.48 cars per capita, well above the national average of 0.32 (Lanzini, 2018). The transport sector is the major source of greenhouse gas (GHG) emissions in Florianópolis, accounting for more than 80 percent of total emissions (Municipality of Florianópolis, 2015).



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Population: 550,000 inhabitants (2010)

Land area: 438 km²

MODAL SPLIT*

48% Car & motorcycle
26% Bus
26% Walking & cycling



**Modal split of the Florianópolis Metropolitan Area (RMF)*

SUSTAINABLE MOBILITY PLANNING

Recognizing the critical role of transportation in the decarbonization process, local and regional authorities in the Florianópolis Metropolitan Area are working together to implement policies, strategies and measures to move towards a low emission transportation future. In 2015 the Government of Santa Catarina took a participatory approach and brought together municipalities and civil society in preparing the PLAMUS (Sustainable Urban Mobility Plan of Greater Florianópolis). The plan steers the actions and targets of the region's mobility planning towards an integrated and connected approach to sustainable urban mobility. Institutionally, the State Agency for the Development of the Florianópolis Metropolitan Region ("Superintendência de Desenvolvimento da Região Metropolitana da Grande Florianópolis", SUDERF) was set up to coordinate the planning and management of the urban mobility system in the region.

Key policies towards sustainable transport are also presented in Florianópolis's Sustainable Action Plan (2015). As a participating city of the *Global Covenant of Mayors for Climate & Energy (GCoM)*, Florianópolis completed its GHG inventory in 2016 and is currently developing a comprehensive climate strategy with the aid of various administrative actors and sectors.

MODERNIZING THE PUBLIC TRANSPORT SYSTEM

Public transport is the backbone of any transportation system. Ideally, it should be incorporated with other means of transport. Given the geographical layout, local public transport in the city mainly consists of municipal bus and inter-municipal bus systems. The transportation union - SETUF ("Sindicato de Empresas de Transportes Urbanos de Passageiros da Grande Florianópolis") is the main provider of public transport services. It is made up of five companies that provide municipal bus services and three companies that provide inter-municipal bus services. Traditional public transport services in Florianópolis don't have the best reputation. Bus services were previously under-regulated, run by various operators with inadequate user information, minimal infrastructure maintenance and lack of integration. Competition among municipal vehicles and inter-municipal ones on the street also led to low quality service.

Integrating bus operators

Florianópolis is investing in an integrated and intelligent transport system. The goal is to enhance overall user experience by focusing on the transport network, ticketing and fare system, information provision as well as institutional integration. In 2013, the city introduced the integrated Mobility System ("Sistema Integrado de Mobilidade", SIM) and Consórcio Fênix was selected as the single operator of the municipal bus system. The Consórcio consists of five companies including the Canasvieiras, Emflotur, Estrela, Insular and Transol, serving 5.5 million passengers on a monthly basis. As of January 2019, 72 new public buses with cleaner technologies have been purchased, among which 11 are equipped with air conditioning to enhance the comfort of passengers. Now the city has a total of 463 conventional buses and 84 executives. The conventional buses usually run on fixed routes whilst the executives (called "Amarelinhos") are air conditioned and can stop at any point of the route that the passenger chooses. With a network of 184 bus lines, they serve all the districts in the city.



Integrating ticketing and fare system for inclusivity

Bus services are further enhanced by the integrated ticketing system. Florianópolis' approach to make its public transport attractive is to provide services at an affordable rate: single tickets cost R\$ 4.18 (around 0.95 Euro) with a smart card (Passe Rapido) when riding with conventional bus. It allows passengers to use a ticket for several trip segments and paying fares with the transport card is cheaper than buying a classic ticket – R\$ 4.40 (€ 0.98) for single tickets. Tariff for exclusive buses are higher, varying from R\$ 7.25 (€ 1.64) to R\$ 9.45 (€ 2.14). Additionally, the smart card takes into account different targeted groups needs based on their ability and vulnerability: free for the elderly (starting at 65 years old), reduced rate for students and social rate for low income groups. Companies can purchase the "Vale Transporte" card, which can be topped up on a monthly basis and is transferrable within employees. Given that Florianópolis is a popular tourist destination, it offers a "Tourista" card, allowing visitors to recharge it and get a refund when leaving the city.

Furthermore, Florianópolis plans its transport with gender lens as it is widely acknowledged that men and women have different mobility needs and patterns. Some of the key interventions to improve safety are installing video cameras on the buses and organizing information campaigns to raise social awareness. By working with Aflodef ("Associação Florianopolitana de Deficientes Físicos") and providing free bus tickets, the city creates an urban mobility model that is convenient for people with reduced mobility and disabilities.

Integrating information

In order to enhance the overall experience for passengers, the city has introduced the SAO system, providing real-time information through the smartphone app - "Floripa on Point". Users can find information on the route, next departures and precise location of the bus so that they can plan for their journey easily. Similarly, Consórcio Fênix's website and the city council's official website also provide detailed information on timetable, service status and zone map.

Integrating with Bus Rapid Transit (BRT)

Recognizing that building an extensive road network for cars does not solve the traffic congestion problems, Florianópolis has looked into BRT to move people in an efficient, effective and safe manner. The construction of the BRT system is funded by the Brazilian bank Caixa Econômica Federal (CAIXA) with an estimated budget of R\$ 32.4 million (approximately € 7.3 million). When successfully implemented, its BRT system (called "Rapidão") will include 17 km of dedicated bus lanes, connecting the City of São José in the west through the Estreito district to the city center and the Federal University of Santa Catarina (UFSC). However, since its commencement in March 2017, only the first few kilometers have been implemented, due to major construction delays.

EXPANDING THE HORIZON OF FLORIANÓPOLIS' PUBLIC TRANSPORT SYSTEM

Concurrent with constructing dedicated bus lanes, the city plans to provide feeder services and infrastructure to allow walking and cycling, closing the first- and last-mile gap. Now the city has 57 kilometers of bike lanes and it plans to launch the "Floribike" bikeshare program with 25 bike stations, 300 bicycles and bike parking infrastructure. There are also grassroots efforts to encourage cycling. Developed by the CICLOBRASIL from UFSC, the "Pedala Floripa" bike program aims to provide bicycle infrastructure and encourage people to cycle for leisure.

Additionally, the city has embraced new mobility solutions such as car sharing and ride-hailing services to meet transport needs in the future. As of March 2019, Florianópolis has allocated R\$ 135 million (around € 30 million) to revitalize more than 60 streets, including street and façade improvements, the transformation of street lanes to encourage pedestrian use, new bike lanes, lighting and many other interventions.

Florianópolis shows an exciting example of enhancing modal integration to progress towards a sustainable transport future. The strategy is to collaborate with regional partners, coordinate institutions, services, fare, and information and reconfigure mobility patterns. This approach has led to an urban and transport transformation that redefined Florianópolis.



Looking at the RMF, SUDERF plans to create an integrated collective transport network within the region. Major interventions include a renewal of the public bus fleet, promotion of vehicles with cleaner and alternative fuels to diesel, implementation of unified tariffs and the building of a connected BRT system within the entire region. Technical assistance to support the design and structuring of the transport structure will be provided through the FELICITY - Financing Energy for Low-carbon Investment - Cities Advisory Facility program. The program is funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through its International Climate Initiative (IKI) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in collaboration with the European Investment Bank (EIB).



RESOURCES

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The [Transformative Urban Mobility Initiative \(TUMI\)](http://transformative-mobility.org) enables leaders in developing countries and emerging economies to create sustainable urban mobility. It offers technical and financial support for innovative ideas. In TUMI the German Federal Ministry of Economic Cooperation and Development (BMZ) has brought together some of the world's leading institutions working on sustainable mobility with city networks and think tanks to implement projects on site where they are needed most. Partners include ADB, CAF, WRI, ITDP, UN-Habitat, SLoCaT, ITDP, ICLEI, GIZ, KfW and C40. transformative-mobility.org

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