

# URBAN CABLE TRANSPORTATION

SUSTAINABLE MOBILITY SOLUTION



**POMA**



Cities around the world are facing a rapid and increasing urbanization, which is saturating the urban infrastructure. It is estimated that **70% of the world's population will live in urban areas in 2050**, while the number of motor vehicles will double every 7 years. While the urban road networks cannot absorb such pressure in terms of the number of journeys, **the average speed of conventional transport in town (cars, buses, taxis) is decreasing year after year.**

The challenge is to limit traffic jams which paralyze cities and provoke an increase in air pollution by CO2 emissions, noise pollution and road accidents. The objective is ensuring a **sustainable, inclusive and economically efficient development.**

# Ropeway & sustainable urban mobility





## / Mobility is in the air



The cable transportation solution opens a third dimension; **flying over the city to avoid ground constraints** and to create connections where other means of transportation cannot go.

The cable transportation solution is **sustainable, ecological and economical**. It transcends the problems of urban congestion creating air links between urban areas and complementing existing transportation networks. It **fits perfectly into cities** thanks to its small footprint in the ground and **reduces users' travel times**.





# Technical Solution

Cable transportation systems are based on proven, resilient and flexible technology. There are several technical solutions for detachable gondolas that meet different needs in terms of line profiles, capacity and design.

## MONOCABLE

The **Monocable system** relies on a single rope that acts simultaneously as a track and a haul rope. The detachable vehicles slowdown in the stations until they reach a boarding speed that allows easy access for all.



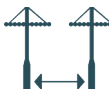
Up to **5 000** pphpd\*



Up to **16** passengers



Up to **7** m/s



Up to **800** m

(\*) Passengers per hour and per direction



## MULTICABLE

The **two-ropes (2S)** and **three-ropes (3S) systems** are propelled by a haul rope and are supported by one or two track ropes. These systems offer greater capacities on the line, larger cabins, longer crossings and superior wind resistance.



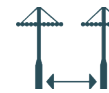
Up to **9 500** pphpd\*



Up to **34** passengers



Up to **8** m/s



Up to **3** km





# / The Cable Transportation advantages



## **Obstacle clearance**

Unmatched ability to fly over natural and urban obstacles



## **Minimum footprint**

Impact on public space limited to a few square feet for towers and stations for an optimal urban integration



## **Exclusive route transportation**

Independent system free of urban traffic on the ground



## **Intermodal integration**

Easy integration with an existing public transportation network



## **Quick installation**

Light infrastructure able to be installed within 18 to 24 months



## **Guaranteed travel time**

Continuous boarding with a few seconds between cabins and fixed travel time in all circumstances



## **Accessibility**

Cabins offering easy boarding and unboarding for all



## **Safety and availability**

Safe, available and reliable system, based on proven technology, much safer than road insecurity



## **User experience**

A smooth and pleasant mobility offering a breathtaking view of the city to the user



## **Low-carbon mobility**

All-electric system with no CO2 emissions which preserves air quality



## **Low investment and operating costs**

Light infrastructure and easy operation





## Unequaled urban integration



### Obstacle clearance

Like no other mode of transportation, **ropeways fly over natural obstacles** (rivers, seas, complex topography) and **urban obstacles** (buildings, roads or railways).



### Minimum footprint

In already dense urban environments, ropeways are easily integrated thanks to **compact stations** and line structures of only a few square feet on the ground. This **frugality of land use** makes projects easier both to integrate and to build into cities.



### Exclusive route transportation

Ropeways lines **operate completely independent** of other ground transportation modes and are not subject to traffic jams or accidents. This unique feature offers a **guaranteed travel time for users** at any time during the day.



### Intermodal integration

Urban ropeways can be **harmoniously integrated into a multi-modal network** and reinforce existing transport infrastructure by feeding mass transportation systems or by **completing the network**.



### Quick installation

Most urban cable projects are **built within 18 to 24 months**. Ropeways lines can also be dismantled and relocated allowing reversibility and flexibility of the solution.



San Francisco - U.S.A



Guayaquil - EQUADOR



Ankara - TURKEY



New York City - U.S.A



## / Travel quality for all



### Guaranteed travel time

Ropeways offer a direct and uninterrupted route between stations thanks to the **total absence of interference** with ground traffic (pedestrian, road or rail), and therefore is a **constant travel time** at any time of the day. The continuous movement of the system and the **high passage frequency of the cabins in the station** ensure a constant boarding flow for passengers.



### Accessibility

Access and a **fluid route adapted to all passengers**: people with disabilities and families. A boarding platform at the same level as the cabin floor and a range of wide-opening cabins with custom-made interior fittings offer optimal accessibility.



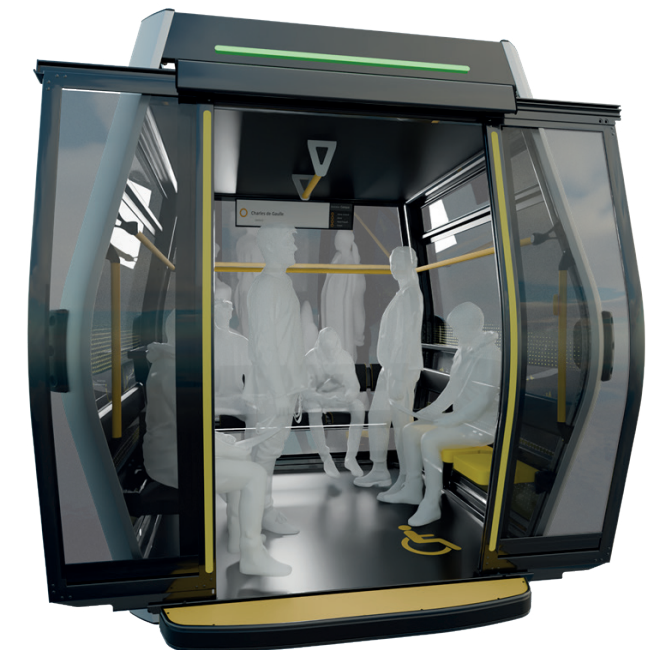
### Safety and availability

This «air» system is not exposed to road insecurity and is based on proven technology which makes it **one of the safest modes of transport in the world**. The availability rate of over 99.5% allows ropeways to be integrated into an efficient multimodal network.



### User experience

The quality of the trip is also enhanced not only by **the comfort of the modern cabins**, but also by **the silence and panoramic views of the city**. In addition, urban ropeways are noise proof to preserve the comfort of passengers and residents.



Configuration of the 12-passenger «URBAN» Gondola



Santo Domingo – DOMINICAN REPUBLIC



Guayaquil - Ecuador



# / Carbon-free and sustainable mobility

Urban mobility is **at the heart of the ecological transition**. Every day ropeways allow millions of passengers around the world to travel without using individual or collective motorized vehicles. Ropeways contribute to **reducing CO2 emissions** from urban road traffic by relieving congestion in the city.

In addition, the system uses **100% electric** power to move an entire line of vehicles on a cable with a single, innovative and efficient **DirectDrive** motor.

**Additional green energy sources** such as photovoltaic panels on the cabins and roofs of the stations can be easily integrated to **reduce the system's consumption**.

Urban cable transportation is part of a sustainable mobility concept, making it possible to respond to city transportation needs and **respect the human and natural environment** at the same time. The aerial connections created by urban ropeways are crucial in the sustainable, inclusive and economic development of the city.



Berlin – GERMANY



Santo Domingo – DOMINICAN REPUBLIC

## / LIFE R'WAY, THE INNOVATIVE APPROACH WITH LOW ENVIRONMENTAL IMPACT



As a pioneer in ropeway transportation, POMA focuses on innovation to boost the regions and those who breathe life into them. With LIFE R'way, its sustainable development approach, POMA is rethinking its projects to reduce its environmental footprint for the benefit of future generations, while improving safety, ease of operation and quality of life for users and field teams alike. In practical terms, this is reflected in solutions at each stage of the life cycle: reduced consumption of raw materials, reduced need for energy during manufacturing, the use of short supply chains and the reduction of consumables.

In operation, the installations are simpler and easy to maintain, with greater safety for workers and scalable products designed to be reused or recycled at the end of their life. This structured approach is based on accurate measurement tools to assess carbon impact from the design phase onwards and to guide choices towards the most responsible solutions. With LIFE R'way, POMA offers a new way of imagining mobility which is more human, more sustainable and more efficient.



## / Performing Operation & Maintenance together

Ropeway mobility is characterized by a **high degree of operational flexibility** (number of vehicles in the line and speed of operation), which makes it possible to adjust the configuration of a system as well as the costs, expectations and constraints of each city considering the most intensive uses.

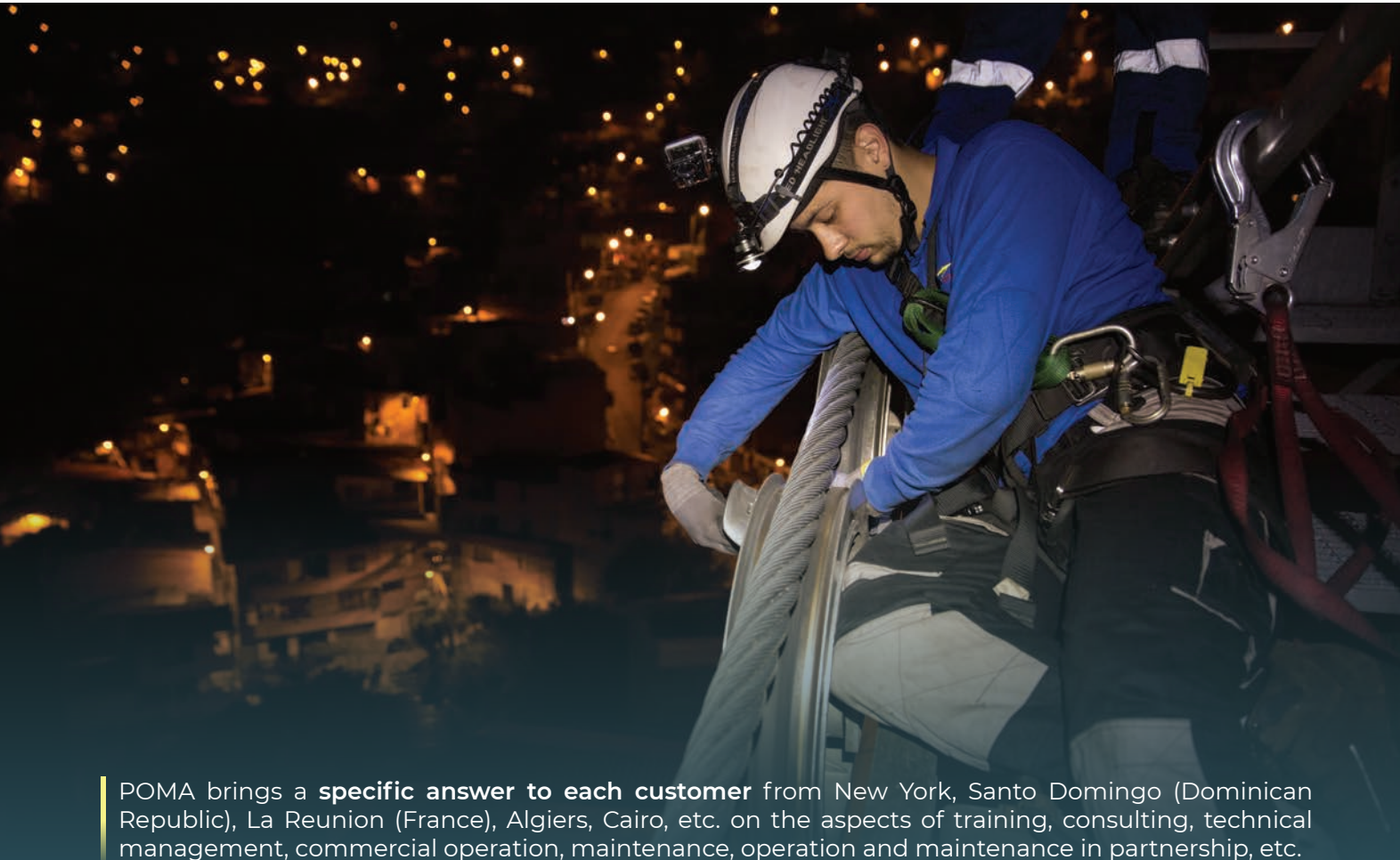
Availability **99.5+%** Open all year round  
20 hrs/day **7000 hrs/yr**

The feedback we have gained from our experience transporting more than 100,000 people per hour on our urban ropeways is used to provide O&M assistance which is essential for the proper **management of operations in terms of safety, availability and cost controlling.**

POMA helps the future operators to understand this new mode of transportation integrated in their existing network. Even **before the opening of the ropeway, POMA trains the operators** with cutting-edge educational tools such as a **3D simulator.**



/ SMART  
OPERATIONS



POMA brings a **specific answer to each customer** from New York, Santo Domingo (Dominican Republic), La Reunion (France), Algiers, Cairo, etc. on the aspects of training, consulting, technical management, commercial operation, maintenance, operation and maintenance in partnership, etc.

### MONITORING TECHNOLOGIES AND OPERATIONAL SUPPORT

E-PILOT is a setup that combines remote supervision of the lift system with a range of technical features designed to replace the safety functions usually performed by on-site operators. Freed from permanent safety duties, operators can focus more on other tasks, such as customer service or maintenance. A technical intervention team can still be mobilized on-site for specific checks or interventions.



POMA is the world's  
leading urban cable  
transportation operator



# Medellin, Colombia

## Pioneer city of urban cable transportation

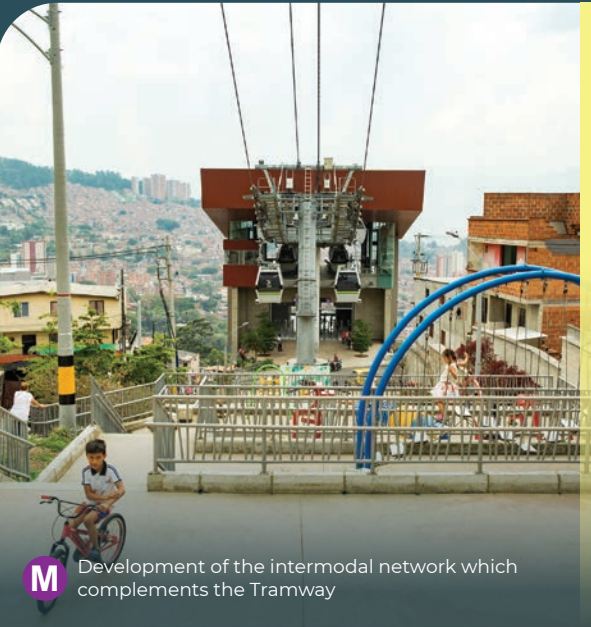




# Medellin, Pioneer City of “Metrocables”

In 2004, Medellin, Colombia was the **first city in the world to use a detachable monocable gondola lift as urban mass transportation** for its residents with its famous «Metrocable». Connected to the Metro and the Tramway through multimodal stations, there are now **6 lines** that play a feeder role and **increase the number of passengers** in the integrated transport network.

The Metrocables both geographically and socially connect the isolated neighborhoods and enhance the quality of life for its residents by providing a faster, safer and more reliable access to downtown employment and services.





## / Cable transportation in the city of tomorrow

The definition of the city of tomorrow calls for a new vision of **transportation and mobility**. Urban development is structured around transportation networks and transforms stations into **multimodal urban hubs and multifunctional living spaces**. Ropeways are an integral part of the Smart City, addressing the mobility challenges of both today and tomorrow.

Urban cable transportation reflects the ambitious vision of cities committed to **building sustainable and inclusive mobility systems**. With its sober, sleek and modern design, green roofs, and energy-efficient systems, **ropeways seamlessly integrates** into existing urban transportation networks.





A world leader «made in France»

# POMA

CREATING CONNECTIONS

With 90 years of existence, and the pioneering spirit of POMA remains intact. World leader in cable transportation solutions, active on five continents, the group keeps innovating since 1936.

POMA offers carbon-free and sustainable mobility, in the heart of cities, but also access to viewpoints, tourist spots, or mountain peaks, and provide material transportation solutions for industries.

POMA exports French excellence and Made in France products to more than 90 countries. Its international subsidiaries ensure an essential proximity with its customers, and a long-term support.

With its expertise, POMA manages its projects from A to Z and covers the entire value chain: design, supply, installation, operation and maintenance.

WORLD LEADER IN ROPEWAY  
TECHNOLOGY SINCE

# 1936

# 4

INDUSTRIAL SUBSIDIARIES IN THE  
AUVERGNE-RHÔNE-ALPES REGION

# 90+

COUNTRIES

# 23

SUBSIDIARIES  
AROUND THE WORLD

# +8000

LIFTS IN THE WORLD

# 520M€

2024 TURNOVER

# +1650

EMPLOYEES



## LEISURE & TOURISM



## URBAN MOBILITY



## MOUNTAIN



## MATERIAL TRANSPORT





● POMA references  
● Other HTI group references

- |                           |                                  |                                      |                             |                                |                         |
|---------------------------|----------------------------------|--------------------------------------|-----------------------------|--------------------------------|-------------------------|
| ● Algeria - Constantine   | ● Chile - Santiago               | ● Dominican Rep - Santiago           | ● <i>France - Ajaccio</i>   | ● Malaysia - Pahang            |                         |
| ● Algeria - Tizi Ouzou    | ● China - Taipei                 | ● Egypt - Cairo                      | ● Georgia - Chiatura        | ● Mexico - Mexico City         | ● Turkey - Ankara       |
| ● Algeria - Alger         | ● China - Hong Kong              | ● Equador - Guayaquil                | ● Georgia - Tbilissi        | ● Mexico - Zacatecas           | ● U.S.A - Miami         |
| ● Algeria - Tlemcen       | ● Colombia - Medellin            | ● France - Grenoble                  | ● Germany - Berlin          | ● <i>Mongolia - Ulan Bator</i> | ● U.S.A - New York City |
| ● Austria - Innsbruck     | ● Colombia - Manizales           | ● France - Toulouse                  | ● Italy - Bolzano           | ● Russia - Nijni Novgorod      | ● U.S.A - San Francisco |
| ● Belgium - Namur         | ● Colombia - Pereira             | ● France - Saint-Gervais             | ● Italy - Pisa              | ● South Korea - Mokpo          |                         |
| ● Brazil - Rio de Janeiro | ● Dominican Rep. - Santo-Domingo | ● France - Saint-Denis-de-la-Réunion | ● Madagascar - Antananarivo | ● Spain - Barcelona            |                         |



# Examples of realizations



Saint-Denis de la Réunion - FRANCE



Barcelona - SPAIN



Guayaquil - EQUADOR



Saint Gervais - France



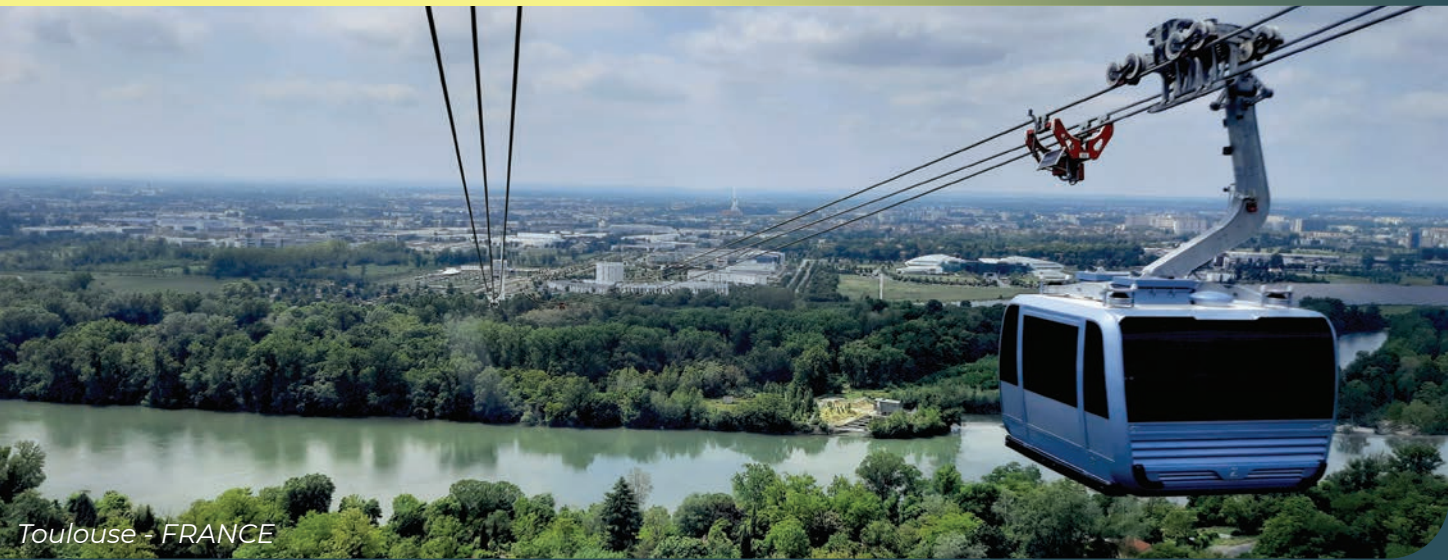
Santiago de los Caballeros - Rep. Dom.



San Francisco - U.S.A



Tlemcen - ALGERIA



Toulouse - FRANCE



Miami - U.S.A



# POMA

## CREATING CONNECTIONS

As pioneers of ropeway solutions, we have been innovating for more sustainable mobility for almost 90 years, for everyone and everywhere in the world.

For exceptional as well as everyday situations, POMA creates the connection between spaces and people.



MOUNTAIN • MOBILITY  
TOURISM • TRANSPORT





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# POMA

