

PRESS KIT 2023

ROPEWAY MOBILITY SOLUTIONS FOR SUSTAINABLE CITIES



OPERATING ALL OVER THE WORLD, POMA innovates to make daily life easier and more sustainable

In France, Ecuador, Colombia, South Korea, the Dominican Republic... all across the world, big cities are seeking POMA's expertise in order to deploy sustainable mobility solutions with features that are unrivalled in terms of frequency, availability rate, carbon footprint and ride comfort. By using the airspace, urban cable transportation eases congestion in city centres and offers a new form of mobility. Connecting seamlessly to existing urban transport networks, cable transportation adds another service for users. Furthermore, as POMA's solutions are unaffected by problems on the ground, passengers enjoy guaranteed travel times and a unique experience with exceptional panoramic views.

This spring, Santo Domingo in the Dominican Republic unveiled its second aerial tramway line which, with its speed of 7 m/s, is the fastest urban single-cable system in the world! A third line is currently under construction in the north of the country, with POMA once again in charge.

In 2023, we are also celebrating the first anniversary of the opening of two aerial lines in France, with passenger numbers that paint a clear picture: every day, Toulouse residents take to the air on the longest 3S aerial tramway in France, crossing over the Garonne and travelling 3 km in 10 minutes, while in Saint-Denis de la Réunion, a single-cable gondola lift links 5 stations in 14 minutes, extending the public transport services on offer in the town.

Colombia is pioneering the urban aerial tramway for Latin America, and in 2022 it opened the 6th line of the "Metrocable" in Medellín, the country's 2nd city, and the "Megacable" line in Pereira, which became the longest aerial link in the country. In Europe, the city of Namur in Belgium paved the way for a number of projects by installing a cable transportation solution in 2021 to access its citadel and to give visitors a new perspective on the ancient Roman city.

Other projects assigned to POMA are under construction or will begin very soon, such as Madagascar, Ajaccio, and Grenoble, the historic birthplace of the POMA Group.

By innovating with POMA, these aerial urban lines open the way to towns and cities in France and all over the world that want to fit into a sustainable urban model.



URBAN MOBILITY, the challenge facing cities for a successful energy transition

The transport sector represents 33% of energy consumption in France, and is the main source of CO2 emissions, accounting for 39% of total greenhouse gas emissions (source: ADEME). At a time of energy transition, this has a significant climate impact! While cities are looking to limit their environmental footprint and improve quality of life, their populations are becoming denser and more widespread: it is estimated that 70% of the world's population will be living in urban areas by 2050. Urban road networks cannot absorb this level of pressure, so the average speed of traditional transport methods in cities (cars, buses, taxis) is constantly decreasing.

Cable transportation offers an efficient solution to the congestion and gridlock problems of major urban centres, while also providing a sustainable and appropriate answer to the issue of ecoresponsibility. It was also identified by the Grenelle I discussions as an efficient alternative for combating greenhouse gases.

This low-carbon method of transport, 100% electric and silent, fits perfectly within the energy transition narrative. All of the cabins are powered by a single electric motor that makes far less noise than motorised transport and creates no air pollution.

Additional green energy sources, such as solar panels on the cabins and station roofs, can be easily integrated to reduce the system's energy consumption even further. POMA is going one step further when it comes to energy efficiency and reducing environmental impacts, with its LIFE R'way (Low Impact For Environment) initiative, a selection of products and services intended to provide substantial energy gains in every phase of a cable transportation project, from the construction site through to daily operation.

The minimal space required for the stations and towers also helps limit the aerial tramway's impact on the public space, allowing it to blend in seamlessly with the urban environment.

Cable transportation also solves the famous last mile problem. Connection vector. It integrates completely into an intermodal network, and makes it possible both to open up sites and to improve existing transport infrastructures. Last but not least, it is remarkably quick to install, with most urban cable projects taking between 18 and 24 months to complete. Cable lines can also be dismantled and moved, making for a flexible and reversible solution.

▶ PRODUCTS WITH LOWER ENVIRONMENTAL IMPACT

Even though all our product ranges are precisely tailored to the customer's needs, POMA goes further by proposing a mobility solution that is increasingly virtuous with regard to people and their environment. To this end, we have selected a set of highly proven products and services that we have modified to further reduce their environmental impact, and we also have new innovative products that integrate the environmental dimension into our work from the design stage.

All the products emerging from the LIFE R'way initiative are part of an incremental innovation process. They are scalable and adaptable, more sustainable, for ever better performance and energy efficiency throughout their lifecycle, pursuing the following areas of improvement: fewer raw materials, less energy in the manufacturing process, short supply chains, worker safety with fewer consumables and less impact



POMA and Michelin are jointly developing a new efficient and durable liner

Michelin, a leader in sustainable mobility, and POMA, a global pioneer in ropeway transportation, have made a joint commitment to develop innovative and more sustainable products. This strategic partnership reflects a common desire to make everyday mobility and travel ever more environmentally friendly.

In 2022, after years of research and joint development, the two manufacturers unveiled their first patented innovation: EFFILINER®, a particularly efficient liner with performance levels that have been proven and validated using advanced calculations and tests on test benches and on existing systems. The rubber liner for carriage rollers is a highly technical component that interfaces with the rope and carrier grips. Due to its function, the liner is subject to extreme mechanical stress, both at the stations and on the line structures. Michelin's expertise in flexible composite materials, combined with

POMA's product expertise and experience gained from numerous installations around the world, has resulted in a solution that meets a large number of technical and environmental challenges. The result of their research is an innovative, exclusive rubber specifically for roller liners in cable transportation systems, with outstanding performance in terms of service life, load capacity, ease of maintenance, reduced energy consumption, vibration absorption and noise comfort. In line with the stated objective of both companies, to protect national industrial know-how, the liners will be manufactured in France, with a high proportion of durable bio-sourced materials using a low carbon process. Moreover, particular attention has been paid to the product's end-of-life, as the liner will be recycled or reused through existing recovery channels. This new efficient liner, exclusive to POMA, will be available in various models to be used from this point onwards in ropeway systems all over the world.

SOUTH AMERICA, champion of the urban aerial tramway

Over the past two decades, cabins have been appearing in South American skies, completely integrated into the urban landscapes and meeting residents' daily mobility needs.

► TWO NEW LINES TO IMPROVE URBAN MOBILITY IN THE DOMINICAN REPUBLIC

Santo Domingo, the oldest city of the New World, is experiencing high urban growth and must address a range of mobility issues, including heavy traffic and frequent congestion which are increasingly making journey times longer... One of the solutions implemented by the local authority in 2018 was a 100% horizontal urban gondola lift covering 5 km in the north-eastern area of the city, crossing over the Ozama River and connected to Line 2 of the metro. Proof that even without a slope, cable-driven transport is reinventing mobility in the urban environment. After the success of this first urban gondola lift in the Caribbean, the country renewed its faith in POMA for the installation of a second 4.2-km, 4-station line in the north-west of the capital. Following two years of construction work, since May 2023, residents of the Los Alcarrizos neighbourhood can now reach the city centre even more quickly, by means of the world's fastest single-cable system. With a speed of 7 m/s and a capacity of 4,500 passengers per hour in each direction, daily lives have been vastly improved for 400,000 residents from the west of the capital.

Convinced by POMA's know-how and expertise, the country is once again calling upon the Isère-based manufacturer for a third aerial tramway. Construction began in autumn 2021, this time in Santiago de los Caballeros to support the urban development of the country's second-largest city. A soft and sustainable mobility service accessible to all is at the heart of the project and will include a monorail, bicycles, electric buses and a 12-seater gondola lift covering a stretch of nearly 4 km. The Santiago de los Caballeros gondola lift will be the 3rd POMA line built in just 6 years in the Dominican Republic, making cable transportation the symbol of innovative and virtuous mobility to boost the country's development.

Two lines operated by POMA Dominican Republic, see p.11 for more information..



From left to right :
Fabien FELLI - President POMA
Luis ABINADER - President of
the Dominican Republic
Guarlen FORTUNA - President
of J.Fortuna Constructora



► COLOMBIA'S FUTURE IS ON THE UP

Medellín is a pioneer in this area, paving the way for a new urban mobility model when it incorporated its gondola lift into its public transport network in 2004: a world first! With 6 lines in service, it is an international benchmark, and the network of gondola lifts now stretches over 14 kilometres, directly connected to the different lines of the Medellín Metro by multimodal stations. Each year, more than 220 million people use the city's transport system, demonstrating a successful social inclusion model that offers a new quality of life to the city's residents through social connections and increasingly attractive neighbourhoods.

The cabins and stations were made in France, at POMA group industrial facilities. The towers were produced in Colombia and installed in Medellín in close cooperation with POMA Colombia, the local subsidiary created by POMA that provides trustworthy support to MetroMedellín in operating and maintaining the system.



Following in the wake of Colombia's economic capital, the city of Pereira itself broke new ground in 2021, acquiring a high-performance urban aerial tramway. The city used the same DirectDrive® technology high energy efficiency motor for its cable transportation system, Colombia's largest. It responds to what is required in terms of mobility and accessibility (the Villa Santana-Pereira journey now takes 14 minutes, rather than the 45 minutes it took before), and the city's environmental requirements.

► ECUADOR'S UNIQUE INTER-URBAN CONNECTION SOLUTION, FLYING OVER GUAYAQUIL

The largest port on the Pacific coast of Latin America has chosen a low-carbon urban transport line, a 100% horizontal, 4-km-long aerial tramway with 5 stations, completing the city's public transport network and relieving peri-urban traffic. Operational since December 2020, the AEROVIA line cuts the commute between the Guayaquil business district and the residential neighbourhood of Durán from an hour by road to just 17 minutes by gondola. This cable transportation line boasts 155 10-seater cabins, making it possible to carry 2,600 people per hour in each direction, for an daily capacity of 40,000 passengers. Ecuador's first urban gondola lift, AEROVIA stands out for the way it has become such a seamless part of the daily lives of residents. The 3 city centre stations slot into the urban landscape by providing community services to passengers.



IN EUROPE, FRANCE, is hitting new heights

Europe is introducing cable transportation solutions into its daily transport network at an increasing rate. And the continent has found other uses for it, such as serving and enhancing tourist spots.



► A BIRD'S EYE VIEW OF TOULOUSE, AND A SUCCESS SINCE MAY 2022

The 2.7-km aerial tramway line, the longest in France, links the Oncopole to Paul Sabatier University via Rangueil hospital on the Pech David hill, crossing over the Garonne, in just 10 minutes, a journey that takes 40 minutes by car. The aerial transport line was the obvious solution to serve three major hubs of the city of Toulouse. Seamlessly connected to the metro and the city's entire transport network, Téléo cable cars run every 90 seconds during peak times, with service from 5:15 am to midnight, and transporting 8,000 passengers daily. After 1 year of operation, 1.5 million journeys have been made.

With only 5 towers on its 3-km route, the POMA 3S aerial tramway stands out with regard to its minimal ground space requirements. Natural areas are entirely preserved as it simply passes over them. Téléo also sets itself apart in terms of its acoustic performance: its single electric motor is installed at the Paul Sabatier University station and equipped with special sound-proofing. As well as providing a service to users, with Téléo POMA offers a unique experience: travelling 50 metres above the ground, these fully-glazed connected cabins offer breathtaking views of the pink city and its surroundings.

► IN RÉUNION, THE INDIAN OCEAN'S FIRST URBAN GONDOLA LIFT CELEBRATED ITS FIRST BIRTHDAY IN MARCH 2023

Requested by almost 90% of the population, the Indian Ocean's first gondola lift got off the ground in Saint-Denis de La Réunion, on 15 March 2022. Delighted passengers now travel the 2.7 km between the Chaudron district and the Bois de Nèfles district in Sainte-Clotilde in just 14 minutes.

The integration of this aerial tramway, a keystone in local urban planning, marks a turning point in the history of the island and its development. In one year, 1.5 million passengers have been carried above Saint-Denis de La Réunion. The line has 5 stations and is connected to the existing Citalis transport network (more than 21 million passengers annually). It also takes into account the Réunion Region's future Run Rail project connected to the university campus. The 46 10-seater cabins provide a capacity of 1,200 passengers per hour in each direction. Featuring DirectDrive® technology, the gondola line provides a silent, efficient, low-carbon method of transport.



► A LINK WITH HISTORY IN NAMUR

Since 8 May 2021, a multimodal tourist gondola lift has been connecting Namur's historic city centre with its listed Citadel. The two trains of three 6-seater Diamond cabins run along the line at 6 m/s, carrying all members of the public, from pedestrians and strollers, to bikes and people with reduced mobility.

The city had long wanted to make it easier for Namur residents to access the Citadel, which was complicated by the steeply sloping ground, as well as by the Sambre and Meuse rivers. Now the challenge has been overcome! Linking Maurice Servais Square with the Citadel esplanade, the 650-metre-long journey, covering a 103-metre slope, is completed in 3 minutes max.

Thanks to the cabin's large windows, users have also been able to discover an entirely fresh view of the Wallonia capital. Designed to slot into the urban landscape, the aerial tramway proposes a modern architecture that respects the uniqueness of the site. The two discreet stations blend into their environment thanks to the red brick typical of Namur. The technical parts of the aerial tramway are well camouflaged and the ingenious design of the transparent glazed surfaces allows perfect integration with the surrounding buildings. Particular attention was paid to the installation of the towers. Of the four on the line, only one is obviously visible, with the others blending into the Terra Nova woods.

This is the very first project POMA has completed in Belgium, and its first European tourism concession.



DES PROJETS à venir

► GRENOBLE TURNS TO CABLE AS A SOLUTION TO ITS GREEN AMBITIONS

In Grenoble, European Green Capital 2022, cable transport is helping to translate ambitious goals aimed at organising the city around sustainable mobility projects.

POMA has won the tender to connect the city with three of its surrounding communes. In 2025, a 3.7 kilometre aerial cable link will span two water courses and two dual carriageways to connect the “scientific” peninsula with Fontaine and Saint-Martin-le-Vinoux. A real technical challenge!

66 cabins will carry up to 3,000 passengers per hour, travelling at 19 km/h and completing the journey in 15 minutes. Proving that environmentalism and aesthetics can go hand in hand, the 6 stations will be built entirely of metal and wood, and the feet of the pylons will be covered in greenery, as will the station roofs that are designed to be “balconies” over the city. And since it’s linked to tramway lines A, B and E, the cable transport line will be fully integrated into the public transport network.



► AERIAL TRAMWAY IN ANTANANARIVO, MADAGASCAR: A SUSTAINABLE AND VIRTUOUS SOLUTION TO RELIEVE CONGESTION IN MADAGASCAR’S CAPITAL CITY

POMA has been awarded the contract for the future aerial tramway in the capital of Madagascar, as part of a consortium comprising the companies COLAS PROJECT and COLAS MADAGASCAR. Sustainable, environmentally friendly and cost-effective, cable transportation transcends urban congestion problems by creating aerial links between urban and suburban areas, complementing or extending existing transportation networks.

The cable transportation project will therefore lead to a significant reduction in CO2 emissions and microparticles. The first cable-car line, an essential link in Antananarivo’s urban transportation system, will serve 7 stations spread over 8.7 km between Antsako, Anosy and Ambatobe, with an initial carrying capacity of up to 40,000 passengers per day. This cable transportation project reflects the commitment of the local authorities to significantly improve the public transport offering in the Malagasy capital.



► JUST LIKE THE BIG CITIES, AJACCIO CHOOSES AN URBAN GONDOLA LIFT

Ajaccio, capital of the island paradise of Corsica, has been experiencing enormous population growth as a cultural and economic center for some time now. In order to actively meet the associated challenges in terms of environmentally friendly mobility, the city administration is implementing a real showcase project with its “Angelo” ropeway by 2025.

Starting from the Saint- Joseph neighborhood redevelopment project on the seafront, this system built by POMA will connect several major nodes in the city, served by multimodal stations perfectly integrated in their environment.

These will also ensure the perfect interaction of the ropeway with the city’s bus lines and shuttle boats, making it a central component of a particularly clean, quiet and energy- efficient mobility system. In the future, the three-kilo- meter link will allow 1,500 people per day to travel comfortably between the new hospital, the university,

the sports facilities and the Mezzavia shopping center, as well as the new residential areas. Based on its extensive ropeway expertise, POMA will be entrusted with the operation and maintenance agendas of the new system in Ajaccio for the next ten years.



POMA WORKS ALONGSIDE ITS CLIENTS



Some projects require more than POMA’s expertise in design, installation and system maintenance. Attuned to the needs of its clients, POMA offers personalised solutions in line with their expectations and the realities of the market. Support is provided from start to finish which may include putting local authorities in contact with banks, institutional partners, sponsors, investors, insurers, etc.

Each time, this involves finding the best possible collaboration, as with the French Development Agency (AFD), which supported our clients on urban projects in Medellín, Santo Domingo and Guayaquil.

Drawing on its expertise in interface management, POMA also develops clusters whose form, size and time frame are unique to each project.

Support A LA CARTE



Whether it's in Réunion, Guayaquil or Namur, POMA always brings a specific solution to each client, from training, advice, technical management and commercial operation, to upkeep, technical operation and partnership-based maintenance, etc. POMA anticipates its clients' needs, offering support solutions that vary according to the requirements, ranging from start-up support to full assistance with the operation and maintenance of every system.

After carrying out a diagnosis of the human resources and equipment (tools, spare parts, etc.) needed to guarantee the desired operating conditions (system opening hours, yearly usage times, permission and duration of stoppages, expected availability rate), the POMA teams are able to offer tailored support solutions.

The Group is then able to help its clients with operation and maintenance, whether that involves transferring acquired skills or the delegation of tasks to the dedicated POMA teams. These à la carte operation and maintenance contracts help guarantee the maximum availability of any type of urban ropeway, 20 hours per day all year round.

Each proposal also takes into account the machine's operating conditions – as well as the “cable culture” of each country where the machine is installed – which ranges from start-up assistance to the full operation of the structure at a flat rate.

POMA guarantees the durability of every system, supporting future operators through on-site and online training via a 3D simulator.



POMA, 1st worldwide operator
of urban cable transportation

SAFETY AND AVAILABILITY ACROSS THE LINE Examples of contracts of Operations and Maintenance

► Santo Domingo's line 1 is used on average by 12,500 passengers daily. It operates 17 hours per day, 355 days per year, with a remarkable availability rate of 99.9%. Ad hoc assistance is in place, with an operating partner supported by dedicated local POMA teams who are the bedrock for these remarkable performances, responding to the high use of the system all year round, and contributing naturally to maintaining regular and increasing traffic. The O&M contract has been renewed for 3 years between POMA and its partner for this first line which has been operated since 2018.

A second line has just opened in the Dominican capital in spring 2023, with a speed of 7 m/s and a capacity of 4,500 people per hour – making it the fastest in the world – which bodes well for new challenges, since the Dominican Government is once again relying of POMA teams to operate and maintain this new line.



► Egypt is another geographical area in which POMA is establishing itself long term. POMA's activity has primarily developed in Cairo with the installation of the Cairo airport APM, which is operated 18 hours per day, 365 days per year, by the POMA Egypt teams. Here again, ad hoc assistance from POMA has enabled specific skills to be developed with teams recruited and trained locally.

Since 2012, its availability rate has exceeded expectations, reaching 99.9%. This strong performance has already resulted in 3 Operations and Maintenance contract renewals, committing POMA for another 5-year period.

► The POMA APM connection at Miami international airport, has been a success since it was opened, with 12,000 passengers transported per hour and an average availability rate ranging between 99.95% and 99.98%. The POMA teams are in charge of the full operations and maintenance of a second line, in North America: the Roosevelt Island aerial tramway in New York, which has an availability rate of 99.99% and during the early part of 2023 achieved an exceptional peak of 100%. These remarkable performances have also been possible due to long-term commitment, with contracts regularly renewed between POMA and its operating partners.



2023 CALENDAR

Find POMA at the major events for urban mobility:

▶ UITP - Barcelona SPAIN, from 4 to 7 June

Every year the UITP global public transport summit welcomes professionals and key industry players to the very centre of Barcelona.

Conference "Integrating cable-car systems as a sustainable urban transport solution" on Wednesday 7 June at 12 pm.

▶ CODATU - Bogotá COLOMBIA, from 26 to 28 June

The CODATU Forum brings together more than 200 leading figures and regional stakeholders who are experts in mobility, from France and Latin America in Bogotá.

▶ RNTP - Clermont-Ferrand, from 17 to 19 October

Rencontres Nationales du Transport Public (RNTP) offers the opportunity to discover the solutions that are best suited to the changes in mobility and transport policies.

▶ Salon des Maires et des collectivités locales - Paris, from 21 to 23 November

An opportunity for elected representatives and key players from local authorities to meet with companies and their innovative solutions, to boost regional development.



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