

UP



The Doppelmayr Group
Magazine

1/2024

North America

In the overtaking lane

Sierra Nevada

Partnership spanning decades

Projects worldwide

Big Sky – Istanbul – Queenstown



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Status quo and a look into the future



Gerhard Gassner

Michael Köb

Thomas Pichler

Arno Inauen

**Executive Board
Doppelmayr Group Management**

In this issue of UP, we take you with us on a trip around the globe: from the USA to Mexico, then to Spain, Switzerland and across Austria to Turkey, followed by China and New Zealand. Find out exciting details about the diverse applications for our ropeways as well as the latest company and industry news.

Selected experts provide insights into the future of the ropeway sector and the urban traffic space. In addition, we report on exciting digitalization potentials that we have transformed into useful

application possibilities – both in the intralogistics field and in the world of ropeways. And see for yourself the passion with which we develop our products and services, and enable individual solutions. Always focusing on the needs of our customers, ropeway crews and passengers.

With this in mind, we're sure you'll enjoy reading about projects that attest to the great commitment and drive of our customers and our teams. We look forward to jointly carrying out fascinating projects and continuing to set new industry benchmarks with our products and services in the future.

View through the magnifying glass

The new Zermatt-Furi tramway went into service at the beginning of November. The absolute eye-catcher on this installation is a unique tower shaped like a magnifying glass. The new tramway brings a significant increase in transport capacity and is part of the "Matterhorn Alpine Crossing", the highest ropeway route linking two countries in the Alps. In addition, this ropeway is the first large reversible aerial tramway to be equipped with AURO technology.



More info







In the overtaking lane

North America takes the number one spot





The 8-seater chairlift Ramcharger 8 in Big Sky Resort, Montana was the first D-Line in North America.

Growing visitor numbers in the winter resorts and numerous lift modernizations made North America the Doppelmayr Group's strongest market in the 2022/23 business year.

In the 2022/23 business year, North America overtook the European domestic market in figures for the first time in the company's history and now ranks in pole position. Doppelmayr has become the leading supplier in a highly competitive environment with a market share of almost 60 percent. An impressive 30 Doppelmayr ropeways were completed for the 2022/23 winter season. And the current winter season also offers ski guests in North America a host of new ropeway installations with top comfort.

D-Line on the up and up

The D-Line is enjoying ever-increasing popularity in the USA. The 8-passenger D-Line chairlift Ramcharger 8 has been operating at Big Sky Resort, Montana, since 2018. Another seven D-Line lifts have been installed in the meantime, followed by another eleven for the 2023/24 winter season. This ropeway generation is also very sought after in Canada. "The strong presence in the US has also generated huge interest here in Canada – and underlined the significance of a modern system," says Doppelmayr Canada CEO Luc Guy. The end of 2023 saw the completion of the first two D-Line installations in Canada, which have made a big impression thanks in particular to their high level of comfort, top performance and efficiency.



With a total length of over five kilometers, the Wild Blue Gondola is the longest 10-passenger gondola lift in North America.

The D-Line 8-seater Adventure 8 shortens previous waiting times with an impressive capacity of up to 4,250 passengers an hour.



At the end of 2023, North America overtook the European domestic market in figures and attained pole position for the first time in the company's history.

New project team in the USA

The large order volume in North America was successfully handled as a result of all subsidiaries working closely together. The various production sites were used to outsource manufacturing stages and ensure on-time completion. A newly formed project team in the USA is tasked with ensuring that every individual project gets the necessary attention. Doppelmayr USA has taken on an extra 100 employees since 2020 to secure optimal support for the subsidiary's continuous growth. "Our work and our projects cover a very wide field. We also support our customers, for example, with the modernization of existing installations. However, new builds that replace outmoded lifts form the bulk of our contracts," says Doppelmayr USA president Katharina Schmitz.

Close collaboration

The smooth coordination and cooperation between all subsidiaries are becoming increasingly important when it comes to being able to address the individual wishes and needs of customers in contract planning and handling. "We can play to our full strengths here – the excellent collaboration between the individual teams inspires thinking outside the box, brings flexibility and new approaches, and, of course, also ensures on-time completion," says Thomas Pichler, member of the Doppelmayr Group Management Board, and adds: "The opportunity to share know-how and resources within our organization structure is a huge bonus for our customers. It's not just about providing the expertise but also about high-quality workmanship."



Selected highlights in North America

The Doppelmayr Group completed an impressive 33 ropeway installations for the 2023/24 winter season in the USA and Canada. Below is a short extract of some of these highlights.

USA

Sterling Vineyards, Napa Valley, California

The Sterling Vineyards Gondola was opened in the Napa Valley wine-growing area. This project showcases attractive ropeway mobility in the tourism sector.

Big Sky, Montana

The Lone Peak Tram is a milestone for Big Sky. It brings guests to the highest point in the resort. Find out more about the project on page 42.



Steamboat Springs, Colorado

The Wild Blue Gondola is the biggest and fastest 10-passenger gondola lift in North America. The first section was completed in 2022, the second was opened for the 2023/24 winter season.





Canada

Mount St. Louis Moonstone, Ontario

The Adventure 8 is one of the first two D-Line detachable 8-seater chairlifts in Canada and is equipped with the Doppelmayr Direct Drive.

Whistler Blackcomb, British Columbia

The Fitzsimmons Express ensures skiing fun in the winter and biking thrills in the summer. With its Bike Clips, this lift is continuing the region's pioneering spirit.

- Chairlift
- Gondola Lift
- Aerial Tramway
- Surface Lift

The urban airspace – mobility level of the future

An efficient mobility infrastructure provides the foundation for livable metropolitan regions. However, conventional forms of urban mobility appear to have reached their limits. In his guest opinion piece, Doppelpmaryr's head of international business development, Reinhard Fitz, outlines the contribution that urban ropeways can make to securing multimodal mobility.



While aerial ropeways have long been a major part of passenger transport in Latin America, Europe remains somewhat hesitant. We are nonetheless already seeing some visionary ropeway projects that demonstrate how they can be integrated into local transit networks. One example is the 4.5-kilometer ropeway line Câble C1, which is currently under construction in the Paris metropolitan area and is due to go into service in 2025.

Relieving urban traffic

Ropeways can help to relieve or expand existing urban transport networks as well as filling gaps. The ease with which they can be integrated into these networks

means that ropeways give transport planners new application scenarios allowing better coordination of different means of transport – entirely in keeping with the idea of a multimodal, urban mobility solution. The goal should always be to significantly reduce travel time and to create new connections to and within the transport network. Extremely difficult alignments in mountainous or densely built-up areas can be mastered in the same way that obstacles, such as multi-track rail and road routes, large bodies of water and green spaces, can be crossed. Aerial ropeways run independently of traffic on the ground. Their cabins simply glide over congested streets and existing infrastructure and bring passengers to their destinations conveniently, safely and without barriers. Short construction times and very small construction sites for the stations and

towers enable the creation of a new transport connection without additional burdens on the daily lives of residents, commuters and on existing traffic. This is achieved through the use of pre-fabricated elements for stations and towers and makes the ropeway considerably more cost-effective than building inner-city streetcar infrastructure, route expansions or new tunnels. In addition, aerial ropeways are virtually noiseless, which helps to the improve quality of life in cities.



Aerial ropeways run independently of traffic on the ground. Their cabins simply glide over congested streets.



Sustainable means of transport

The ropeway also impresses in terms of its sustainability in comparison with other transport solutions. It is estimated that by the year 2050, two-thirds of the world's population will live in cities.* At the same time, the transport sector worldwide accounts for almost one quarter of CO₂ emissions, and that figure is set to increase. This makes it all the more urgent to create a form of mobility that is future-proof due to its energy efficiency, low emissions and small environmental footprint – particularly in urban and suburban areas. This is where the ropeway can score with a low carbon footprint. Thanks to its central electric drive, there are no local emissions such as nitrogen oxides (NOx) or particulates. When renewable energy is used, ropeway operation is carbon-neutral. The barrier-free design of ropeways enables all user groups to travel with ease and at the same time supports micro-mobility for the last mile of the journey by allowing the transportation of bicycles and scooters, etc.



Reinhard Fitz
Head of International
Business Development
Doppelmayr Seilbahnen GmbH

Transport spaces fit for the future

The creation of future-proof, sustainable mobility calls for joined-up thinking. Multimodal concepts including micro-mobility are a key factor when it comes to making public transit systems more efficient and more attractive. With their ability to close gaps in the system with ease, aerial ropeways provide new options for expansion, linkage and addition. They are based on proven technology with low operating risks and costs. When deployed correctly, they can relieve traffic in urban and suburban areas and make an effective contribution toward a green mobility transition.



Thanks to the ease with which they can be integrated, ropeways offer new application scenarios – entirely in keeping with the idea of a multimodal, urban mobility solution.

* Source



Future projects in Latin America

Urban ropeways have long been an important part of local public transit systems in Latin America. Inspired by the success of existing installations, further projects are now in the pipeline for Colombia, Mexico and Chile.



Uruapan

Cablebús Línea 3

Cable Aéreo de Potosí

Teleférico San Cristóbal

Teleférico Bicentenario

Doppelmayr has already implemented numerous innovative ropeway projects in Latin America. These installations are much more than purely a means of transport. They improve quality of life for millions of people, make a major contribution to the mobility transformation, and provide better access to workplaces, schools and social amenities. In the course of the next five years, five more urban ropeways from Doppelmayr will be going into service in Latin America.

Three ropeways in Bogotá

In Colombia, three Doppelmayr urban ropeways are set to make life easier for people who live in the capital, Bogotá. In addition to the TransMiCable installation that opened in the Ciudad Bolívar neighborhood back in 2018, another two 10-passenger gondola lifts are currently under construction. From 2026, one of these will link the southeastern locality of San Cristóbal with its 400,000 inhabitants



to the transport hub Portal 20 de Julio. This will be followed by the 3.3-kilometer Cable Aéreo de Potosí one year later. The 600,000 residents of the Potosí district will then be able to reach the nearest stop for the bus rapid transit system in just ten minutes.

Valuable transport system

Mexico City's third urban ropeway line is currently being built. The Cablebús Línea 3 will connect the districts of Los Pinos/Constituyentes and Vasco de Quiroga over a route extending 5.5 kilometers. This installation has six stations and is designed to carry 12 million passengers a year in its final capacity. In the city of Uruapan, the Mexican government is also investing in the construction of an urban ropeway. With a length of 8.4 kilometers, this system will provide a valuable transport connection for the population with a capacity of roughly 1,500 passengers an hour in each direction.

First urban ropeway in Chile

Chile is also setting its sights on innovative transport solutions and sustainable mobility. Doppelmayr is currently building the country's first urban ropeway in Santiago de Chile. The 3.4-kilometer route of the Teleférico Bicentenario will connect three municipalities from Huechuraba on the northern perimeter of the metropolitan area to Providencia in the north of Santiago City. The opening of this 10-passenger gondola is planned for 2026.

Above the roofs of Mexico

Annual inspection of Línea 1 of the CDMX Cablebús





Roughly
50,000
people use the Línea 1
on a daily basis

18 h
daily operation



Hectic hustle and bustle and noisy traffic have long been part of everyday life in the metropolis Mexico City. The contrast to the Cablebús Línea 1 opened in 2021 couldn't be greater. As a refuge of calm and reliability, the comfortable 10-passenger cabins glide almost soundlessly above the activities on the ground. They connect the district of Cuauhtepac higher up with one of the biggest transport hubs in the city: Indios Verdes. Thanks to the regular checkups and annual inspections, the Cablebús Línea 1 ranks as one of the safest means of transport.

Customer Support



The reliability of the Cablebús Línea 1 in Mexico City gives the 600,000 residents of the Cuauhtépec district direct access to the local public transit network.



As part of the annual inspection, the mechanical components of the stations, towers and foundations were checked, along with the carriers and the line profile.

»The collaboration between everyone involved was fantastic. The work was handled quickly, efficiently and safely so residents can continue to benefit from the huge relief that the ropeway has meant for their daily lives since it opened.«

Konstantinos Panagiotou
CEO of Doppelmayr Mexico



Important link

Cablebús Línea 1 covers a total of six stations over a length of almost 10 kilometers. It not only provides transport for local residents but also for urgently needed freight that would otherwise not find its way to Cuauhtepac, or only with great difficulty. The few roads that wend their way between the steep hills are too narrow and rapidly change from tarmac to paved alleys. Around 50,000 people save valuable time on a daily basis by using Cablebús Línea 1.

Precision work at loft heights

Cablebús Línea 1 operates up to 18 hours a day. Conscientious care and maintenance are crucial to ensuring this high level of availability. In summer 2023, some 50 employees from Doppelmayr Mexico, Doppelmayr Wolfurt, Garaventa and the city's transport department carried out a major maintenance contract. Together, they subjected the installation to meticulous scrutiny. This included, for instance, cleaning the filters, changing the oil and inspecting the towers and sheave assemblies.

As a result of natural elongation, the rope had to be shortened by roughly seven meters in the first section. That's nothing unusual for ropeways. The entire hydraulic system was also thoroughly tested. "The collaboration between everyone involved was fantastic. The work was handled quickly, efficiently and safely so residents can continue to benefit from the huge relief that the ropeway has meant for their daily lives since it opened," says Doppelmayr Mexico CEO Konstantinos Panagiotou.

Training with the professionals

TÜV Süd, the global market leader in technical testing and certification who was also contracted for the start-up in July 2021, was again responsible for the certification. The inspection included the mechanical components of the stations, towers and foundations, the carriers and line profile as well as identifying any possible fire hazards. Employees of the city's transport services attended training courses to ensure they know how to perform rescue measures in the cabins in an emergency. "We're proud of how quickly Cablebús Línea 1 has become such an important and indispensable means of transport in Mexico City. To make sure it stays that way, we shall continue to ensure its safety with our utmost care and precision," says Konstantinos Panagiotou.

Project

From Europe to Asia

The journey from the Asian Bosphorus to the European Technical University takes 2.5 minutes – thanks to Istanbul's urban funicular railway, the Rumeli Hisarüstü-Aşiyan Füniküler. Its special feature: The new funicular runs entirely underground.



747 m
Inclined length

82 m
Vertical rise

3,150 p/h/d
Capacity

10 m/s
Speed

10/22
Opened



Another Garaventa funicular was added to the urban transport network in the vibrant metropolis of Istanbul in fall 2022. Following the successful completion of the Taksim-Kabatas installation in 2006, the city once again placed its trust in Swiss expertise. Garaventa built the new Füniküler in collaboration with Frey Stans, who were responsible for the control technology. The cars were manufactured by CWA in Olten.

Milestone in public transport network

This project marks an important milestone for the public transport network in the metropolis. The new tunneled funicular links the European and Asian districts of Istanbul. The almost 750-meter-long underground installation brings passengers in comfort from the lower terminal below sea level at the Bosphorus to the Technical University, which lies

82 meters higher up. From there, passengers can change to the subway, which takes them directly to the heart of European side of the city. At the lower terminal there is a nearby ferry connection to the Asian side of the city. The Füniküler therefore impressively expands Istanbul's urban transport offer and is seamlessly integrated into the existing transport network.

3,150 passengers per hour and direction

The cars have barrier-free access and provide room for 200 people. They carry up to 3,150 passengers an hour in each direction. The main focus is on a pleasant and smooth travel experience. The installation is equipped with a redundant double drive and an emergency drive, CCTV and audio systems, an intercom system in the cars, and automatic platform doors. In addition, electricity is supplied via a power line along the entire route, which ensures the energy supply to the lighting, ventilation and air-conditioning in the cars both in the stations and on the line.

»Ropeways as value drivers«

Franz Hörl has been chairman of the ropeway industry association within the Austrian Economic Chamber (WKO) since 2010. In an interview, he provides insights into the importance and future of the ropeway sector.

You look back on 13 years as chairman of the ropeway industry association. What, in your view, were the high points?

The most important thing for me has been the overall development that our sector has seen during that time. We have reached a very high level and have been able to defend it to this day. That doesn't sound spectacular, but – when you consider the global competition – it is actually a huge achievement. Our location ranks among the world's top three and boasts high ratings in key areas such as snow trail quality, snow certainty, price/performance ratio and percentage of regular guests. I'm particularly proud of the fact that, as an industry, we have always stuck together and followed the same path.

How would you rate the importance of the Austrian ropeway industry for tourism and the country's economy in general?

The central role of ropeways in winter tourism remains unchanged, as does the fact that they are the number one value driver in many regions. In difficult economic situations, their importance becomes even greater because there

are a lot of sectors that are directly connected with ropeways. Everything from tradesmen, sports retailers, hospitality and hotels to infrastructure and cultural diversity in our communities – a lot stands or falls with the ropeways because they have a comprehensive impact; they don't just generate ticket sales but help to maintain regional economies. The billions in value added are relevant for the country as a whole, also in terms of the labor market and businesses.

In your view, how are summer and winter tourism set to develop in the next few years and what will that mean for the Austrian ropeway industry?

It's noticeable that the summer tourist season is on an upward trend and for years has been on the path to success. That's down to the top-class leisure amenities on offer in our mountains and is certainly also attributable to the development toward closer, more secure travel destinations. The winter is at a very high level. We constantly register around 50 million skier days, which is a top value in global terms. The extensive investments on the part of ropeway operating companies are a contributing factor here. In this country, money is invested locally in the living and working environment. There's a clear development trend toward sustainability in all its aspects. Our businesses operate

in the smallest possible spaces and do so almost exclusively with renewable energy; our consumption accounts for 0.3 percent of Austria's total energy consumption. And we're putting huge efforts into improving even more and making our sector the first to be entirely energy self-sufficient.

In terms of the technology: Which ropeway innovations or projects have impressed you in particular in recent years?

After many years of enhanced comfort and design development, what inspires me the most are above all the innovations in the area of energy efficiency and energy production and the possibilities for multifunctional use. When the ropeways or their stations themselves become energy producers through the use of photovoltaic installations – such as in the case of the Stuanmandl gondola in Gerlos – then that demonstrates the enormous drive on the part of the manufacturers. Global challenges are being proactively integrated into development work.



To find out what Franz Hörl sees as the top three opportunities and challenges for the sector along with other fascinating insights into the Austrian ropeway industry, read the full-length interview online.

»We're putting huge efforts into improving even more and making our sector the first to be entirely energy self-sufficient.«

Franz Hörl

Function:

Chairman of the Ropeway Industry Association within the Austrian Economic Chamber (WKO) since 2010

Home:

Gerlos, Zillertal, Tyrol, Austria

Occupation:

Hotelier, ropeway professional, farmer, politician





AURO: The future is autonomous

The Doppelmayr Group set course for the future of ropeway mobility with the launch of AURO in 2020. Since then, the success trajectory of the autonomous ropeway system has been unstoppable.

In December 2023, Doppelmayr achieved another milestone and the next logical development stage. Following an intensive test phase, the relevant authorities granted operating licenses for the first two AURO chairlifts worldwide in Switzerland and Austria. The sophisticated AURO-CLD system was developed by Doppelmayr in collaboration with technology partner Mantis Ropeway Technologies.

AI-assisted image processing

In the case of AURO-CLD, AI-assisted image processing from Mantis Ropeway Technologies is deployed. The software analyzes and evaluates image and video data in real time, and triggers automatic responses. The system identifies hazardous situations in the unloading area in fractions of a second and decides

autonomously whether the installation can continue to operate, should be slowed or shut down. As with AURO for gondola lifts, a restart is performed by one person from the Ropeway Operation Center housed in the bottom station or in a separate building.



Overview of all AURO ropeways to date

10-MGD Kumme Gondola, Zermatt (CHE)

10-MGD Valisera Gondola, St. Gallenkirch (AUT)

10-MGD Komperdell Gondola, Serfaus (AUT)

10-MGD Kieserl, Großarl (AUT)

10-MGD Morgins–Foilleuse, Morgins (CHE)

8-CLD-B Silvretta Lift, St. Gallenkirch (AUT)

6-CLD-B Oberdorf–Freienalp, Wildhaus (CHE)

Game changer in Serfaus

AURO is also gaining ground in the area of gondola lifts. A game changer in this respect is the new 10-passenger gondola up to the Komperdell in Serfaus, where OMEGA IV XXL cabins were used for the first time. This installation increases capacity from 2,400 to 3,500 passengers an hour in each direction. The AURO system enables autonomous, unmanned operation in the bottom and top stations – either with through operation or with each section running independently. The newly built intermediate station houses not only the carrier parking but also the modern Ropeway Operation Center, where one operative monitors operations.

Highly complex planning for Kieserl gondola

The Kieserl gondola in Salzburg's Großarlal leaves nothing to be desired, with multifunctional premises at the base, carrier parking in the mid-station, and the restaurant on the mountain. The construction of this 10-passenger gondola lift called for highly complex planning. Movable segments of the mid-station and individual towers enable the lift to compensate for natural slope movements. Thanks to the AURO system, the Kieserl gondola also runs autonomously – and, despite through operation, runs at different speeds: 6 m/s in the first section, 6.5 m/s in the second.

Plenty of space and flexibility in Morgins

The tourist destination Morgins also chose AURO for their new 10-passenger detachable gondola. The year-round installation is barrier-free and replaces a 40-year-old triple chairlift. The 38 OMEGA V cabins built by CWA provide plenty of space and flexibility. In the winter, passengers can transport their skis inside the cabin thanks to the TWISTIN ski rack integrated into the floor. Mountain bikes can also be carried on board in the summer.



8-MGD Furglerblick

See, Tyrol (AUT)

Bergbahnen See GesmbH

Up to the highest point

A new 8-passenger gondola lift opened in time to mark the 50th anniversary of Bergbahnen See and brings winter sports enthusiasts up to 2,570 meters.



1,135 m

Length

396 m

Vertical rise

1,500 PPH

Capacity

5 m/s

Speed

12/22

Opened



»The new ropeway is a great investment in the future of tourism at our resort.«

Mathäus Tschiderer
Managing Director
Bergbahnen See

Jointly aiming for new heights: The operating company Bergbahnen See in Tyrol has joined Doppelmayr in creating a new highlight for their ski resort. The new Furglerblick ("Furgler View") gondola doesn't just bring passengers to the ultimate fun experience on the slopes. As the name suggests, it also gives them entirely new perspectives on the popular Furgler Mountain. Stunning vistas can be enjoyed during the trip in the comfortable 8-passenger cabins or from the top station at 2,570 meters.

Downhill fun

The lift opened in December 2022 after a construction period of just six months – in time for the 50th anniversary of Bergbahnen See in 2023. The installation also represents the realization of a long-awaited expansion of the ski area. From the top station, winter sports practitioners have access to a completely new ski trail. It is now possible to descend a total of 1,530 vertical meters to the base in one go. That makes the new trail one of the longest downhill runs in the region – skiing pleasure guaranteed! As a "blue" ski trail, it is particularly well-suited to beginners. This is also what makes the ski resort so popular among families with children. Both visitors and locals are welcome in See, where they find an attractive destination for young and old alike.





6-CLD-B Bellwald Gassen-Richinen

Bellwald, Valais (CHE)

Bellwald Sportbahnen AG



More info

1,481 m

Length

458 m

Vertical rise

1,600 PPH

Capacity

5 m/s

Speed

12/22

Opened

With the power of the sun

The new chairlift in Bellwald covers a significant proportion of its bottom station electricity requirements with its own photovoltaic installation.

»Garaventa identified our needs and wishes in detail and together we created an installation that enables unforgettable mountain experiences both in the winter and in the summer.«

Michael Nellen
CEO Bellwald Sportbahnen AG

Modern mobility should not only be practical but also environmentally aware. The Bellwald Gassen-Richinen chairlift in the Swiss canton of Valais shows just how that can be done: with a photovoltaic installation on the roof and facade of the bottom station that produces 155 MWh of electricity per year. The solar energy generated powers not only the bottom station, but also the parking facility and the workshop for snow grooming vehicles as well as public areas.

Year-round access to the World Heritage Swiss Alps

The comfortable D-Line 6-seater chairlift replaced an almost 30-year-old double chairlift that was past its prime. As the installation carries passengers all year round, the operators Bellwald Sportbahnen AG decided in favor of the appropriate equipment. Bubbles protect guests against wind and weather in the winter, while the summer chairs are fitted with Bike Clips enabling riders to conveniently transport their mountain bikes. Bike loading and unloading is particularly simple thanks to the comfort stops installed in the stations. No matter whether the destination is the ski slopes, the bike trails or the hiking paths, the Bellwald Gassen-Richinen chairlift can therefore carry visitors in safety and comfort to the heart of the UNESCO World Heritage Site Jungfrau-Aletsch.



**Photovoltaics
at a glance**

155 MWh
per annum

Photovoltaics on
roof and facade of
bottom station



»With a strong performance from the team, we succeeded in maintaining the tight schedule and put the funicular into service as planned.«

Franz Wackernell
Managing Director,
Pitztaler Gletscherbahn

Farewell to the old ladies

After **38 years** and over **18 million passengers**, Pitztaler Gletscherbahn bade farewell to their "old ladies" – the old Glacier Express trains.



Check out the video

By express to the glacier

Heading straight to the »Roof of Tyrol«.

The Gletscherexpress brings passengers up to the Pitztal Glacier in Tyrol with technical innovation and enhanced comfort. Visitors to the glacier world ride underground all the way through the mountain on the modern Garaventa funicular railway. Rubber suspension wheels and a chassis that is decoupled from the superstructure ensure a particularly comfortable and smooth ride. The cars were custom-made for Pitztaler Gletscherbahn by Carvatech. Inside, the large space, new lighting concept and high-grade materials ensure a pleasant ambience. The external design impresses with powerful branding featuring the unmistakable Gletscherbahn ibex.

Powered by self-generated electricity

When it came to constructing the new funicular, Pitztaler Gletscherbahn attached great importance to sustainability and energy efficiency. The best example: In the summer, the funicular runs entirely on electricity obtained from the on-site photovoltaic system. In addition, energy is produced during the trip, based on the principle of the dynamo, and used to power the funicular's key functions.

3,787 m
Length

1,110 m
Vertical rise

1,600 PPH
Capacity

8 min
Trip time

07/22
Opened



Ascending into a new era

The new Queenstown Gondola in New Zealand boasts a fantastic achievement – a 300-percent increase in efficiency over its predecessor.



Traveling at a speed of five meters a second, the Queenstown Gondola carries up to 6,000 passengers an hour to and from Bob's Peak. This installation combines efficiency with comfort and offers visitors stunning experiences such as a 220-degree panorama of the region.

Long-standing partnership

Summer 2023 saw the opening of the Queenstown Gondola. In collaboration with Skyline Enterprises Ltd, Doppelmayr New Zealand Ltd planned, coordinated

and built the new lift system. The result: a D-Line gondola lift with 35 OMEGA V cabins, each providing comfort and room for ten passengers. "We're proud of the way things went and the positive conclusion of this project. It's a successful symbol of our 35-year partnership with Skyline Enterprises," says Doppelmayr New Zealand CEO Garreth Hayman.

Impressive benchmarks

The gondola lift is a technical masterpiece that guarantees top reliability for a safe and smooth ride. Due to the steep terrain, ten new lift towers had to be flown in by helicopter and were then positioned by the team with maximum precision.



**Detachable D-Line
gondola lift**
Queenstown (NZL)
Skyline Enterprises Ltd.

760 m
Length

438 m
Vertical rise

3,000 p/h/d
Capacity

35
Cabins

06/23
Opened



Check out
the video



Sierra Nevada and Doppelmayr: A partnership that moves

Almost three decades of collaboration, many projects and inspiring successes connect the Spanish ski resort Sierra Nevada with Doppelmayr.

Anyone who associates Andalusia solely with sun, beach and sea is mistaken. Because Spain's most southerly region is also home to the country's tallest mountain range: the Sierra Nevada. This is where the ski resort of the same name that enjoys close links to Doppelmayr is located.

For three decades

When the Sierra Nevada was in the running to host the FIS Alpine World Ski Championships in the 1990s, Doppelmayr recognized the region's potential and provided the necessary support for staging the event. "Since then, the history of Doppelmayr and that of the Sierra Nevada have been closely connected. A lot has been achieved within the context of this successful collaboration over the last three decades," explains Sierra

Nevada CEO Jesús Ibáñez. In the meantime, this connection has even been the subject of an entire book. Spanish-born winter sports enthusiast and engineer Juan José Lapuerta Rodríguez, who now works for Doppelmayr, presents his research into these developments in his book "Sierra Nevada – The History of Ropeways".



More Info

Sierra Nevada

- 2001:** Quad chairlift Borreguiles
- 2001:** 6-seater chairlift Stadium
- 2003:** Quad chairlift Loma Dilar
- 2004:** 6-seater chairlift Virgen de las Nieves
- 2006:** Quad chairlift Dilar
- 2009:** Quad chairlift Borreguiles 2
- 2022:** 6-seater chairlift D-Line Emile Allais
- 2022:** 6-seater chairlift D-Line Alhambra (Valeta II)
- 2023:** 10-passenger D-Line gondola lift Al Andalus
- 2023:** S-Line surface lift El Puente I
- 2023:** S-Line surface lift El Puente II



Michael Doppelmayr, Supervisory Board Chairman of the Doppelmayr Group; author Juan José Lapuerta Rodríguez; and Jesús Ibáñez, CEO of Sierra Nevada, at the presentation of the book "Sierra Nevada – The History of Ropeways".

Five new installations in two years

In the last two years alone, Doppelmayr built five new lifts in the Sierra Nevada. For the 2022/23 winter season, two comfortable 6-seater D-Line chairlifts were put into service. The Emile Allais and the slightly longer Alhambra (Valeta II) have increased transport capacity by 60 percent. Since then, the new 10-passenger D-Line gondola lift Al Andalus and two new surface lifts belonging to the S-Line generation, El Puente I and El Puente II, were opened for the 2023/24 winter season.

Together toward the future

The future also holds more developments for the Sierra Nevada. Additional innovative ropeway systems from Doppelmayr are set to enrich the guest experience successively at the popular winter sports destination by 2030. "We're proud of our shared path to date – and are already looking forward to a lot more exciting projects," says Jesús Ibáñez.

Multifunctionality at the highest level



1,200 PPH

Capacity in cabin mode

500 PPH

Capacity in chair mode

5 m/s

Speed

64

Number of chairs

28

Number of cabins

DSD

Drive

The new Sonnkogel lift on the Schmittenhöhe in the Austrian resort of Zell am See is a chameleon among ropeways. This installation is a 6-seater chairlift in the winter and an 8-passenger gondola lift in the summer. The special feature: No fitting work is required for the operational changeover between seasons. An ingenious station design with additional station curves makes it all possible. In the cold months of the year, the AUTOLOCK restraining bar system and seat heating provide additional safety and comfort. During summer operations, spacious OMEGA V cabins invite passengers to enjoy unforgettable panoramic rides. The perfect combination!





Courmayeur – rejuvenated after 40 years

In the Italian resort of Courmayeur – famous above all for its spectacular Skyway Monte Bianco with cabins that rotate 360° – the Courmayeur-Plan Checrouit tramway underwent a general overhaul for the 2023/24 winter season. The bogies were entirely replaced and a new main winch installed that allows

operation at 12 m/s under full load. In addition, the installation now has a new recovery winch as well as new haul ropes. The complete electric drive has also been replaced. All other mechanical station and cabin parts were dismantled, overhauled and repaired in the workshop. After 40 years, the tramway is mechanically and aesthetically back on top form.

Piz Sella – tramway in new splendor

In summer 2023, the Piz Sella tramway in Gröden also underwent a comprehensive overhaul after 20 years in operation. As part of this process, the installation, which was originally built by Hölzl (now Doppelmayr Italia) in 1983 and subsequently modernized in 2003, was upgraded with a completely new drive system with AC motors, a new control system and new electrical equipment.

In addition, all mechanical parts were inspected and the hydraulic components replaced. The cabins were also given a comprehensive makeover. Built in 2003, the cabins now have new windows and shine in the splendor of the operator's fresh corporate design, while the hangers and carriages are resplendent in a new elegant black lacquer finish. The tramway is once again future-fit and optimally equipped for the coming years.





First combination lift in Latin America

6/8-CGD Teleférico Parque Capivari
Campos do Jordão (BRA)
Eco Jordão S/A

The Brazilian recreation and amusement park Parque Capivari is home to a new combination lift. The Teleférico Parque Capivari offers visitors a choice between chairs and cabins. That means enjoying either an open-air experience on a

comfortable 6-seater chair or the convenience of an 8-passenger OMEGA V cabin. The latter is extremely popular above all due to its barrier-free access. The new lift installation has become an attraction in its own right thanks to the sensational views of the terrain during the trip.

D-Line makes its African debut

Morocco's first D-Line was inaugurated in summer 2022. The 1,700-meter-long ropeway is the first gondola lift worldwide with 8 seats in an OMEGA V cabin. It links the famous vacation resort of Agadir with the ruins of the Kasbah, which are part of a UNESCO World Heritage Site. Passengers enjoy a comfortable five-minute ride in the modern, barrier-free cabins as well as breathtaking views over the city and the ocean.



Check out the video





Award-winning optimization

A fully automated intralogistics system combined with an intelligent software solution from LTW makes work easier for RWA in Traun.



70,000 m²

Total area

17,000

Articles in automated small-
parts warehouse (AKL)
Sectors: Agriculture and
horticulture



Winner of the
**2023 logistics
award**

from the Verein
Netzwerk Logistik

»The LTW team built everything around our needs, enabling us to work significantly more efficiently.«

Ingrid Peraus
Head of Logistics RWA

The wholesale and service provider RWA Raiffeisen Ware Austria AG ensures that the racks of the Lagerhaus (warehouse) cooperatives in the agricultural and horticultural sector are never empty. In Austria's rural areas, the products supplied by the Lagerhaus cooperatives make them an important partner for agricultural businesses. Seasonal fluctuations mean that they face particular challenges in the area of logistics. In recent years, RWA has significantly optimized these processes and at the same time quadrupled revenues without expanding the workforce. This success has been achieved thanks to a fully automated intralogistics system with smart software that runs in the background – both supplied by LTW, who has been a partner to RWA for over 20 years.

Fast and simple

Whereas orders previously had to be picked manually, the work is now simplified and speeded up by an automated small-parts warehouse. Ordered goods come directly to the employee for shipment – without countless forklift journeys. Manual solutions are still required in the rest of the warehouse, and this is where the logistics software LTW LIOS comes into play. It provides optimal planning of which routes the forklift should take and when to ensure that the order is ready on time. It also improves route management in the background at the same time – because the system knows precisely how long it takes to put together a delivery so that trucks can be loaded at exactly the right time and arrive punctually at the customer's premises. Faster, simpler, more customer-friendly: the right solution for RWA's impressive increase in sales revenues.



Find out more about LIOS here



High-bay warehouse
In-house construction
steel racking

60x15x14 m
Length x width x height

5
Racking aisles

~46,400
Bin spaces

50 kg
Payload

+5 to 35°C
Temperature range

Rocky Mountain icon

The Lone Peak Tram – the centerpiece of Big Sky Resort – provides unique vistas.



1,554 m
Length

650 m
Vertical rise

850 PPH
Capacity

10 m/s
Speed

12/23
Opened



The new Lone Peak Tram, which opened in December 2023, is an iconic aerial tramway in the heart of the breathtaking Rocky Mountains. The new installation at the popular ski resort of Big Sky in the US state Montana marks the first large Garaventa aerial tramway built in North America for 15 years. It climbs 650 vertical meters and brings passengers to the 3,400-meter Lone Peak, which lives up to its name as it's the highest viewing point in Montana.

Cabins with all-round views

One of the highlights of this ropeway installation is the design of the CWA cabins featuring two rectangular glass floor panels that provide spectacular views and a special ride experience in the summer. These panels are covered in the winter to protect them from ski boots. Each of the spacious cabins provides room for 75 people, with 12 seats that can be moved or taken out for flexibility.

Big Sky – Big Plans

The new Lone Peak Tram is a cornerstone of the ten-year Big Sky 2025 plan, which is aimed at taking the visitor experience to the next level. The new tramway replaces an old installation that had been operating for a proud 27 years and was itself already an icon. Doppelmayr USA took care of this prestigious project throughout the entire planning and implementation phases. The exemplary collaboration between the teams from Doppelmayr, Garaventa and Big Sky was the success factor behind the smooth handling of this project.



Big Sky recorded the milestones of the impressive construction work in a site diary. It's well worth a look!

Coming soon

Ropeway mobility for local public transit in France



The first urban ropeway in the Paris metropolitan area will be going into service in 2025.

Smoky exhausts, overcrowded buses, traffic jams or built up infrastructure: In future, Île-de-France residents and visitors will simply glide above it all. Because the upcoming Câble C1 ropeway line covering a 4.5-kilometer route is being built as the first urban ropeway in the Paris metropolitan area. From 2025, it will link four different cities within a catchment area of around 20,000 residents and 6,000 work commuters.

11,000 passengers per day

The Câble C1 line will carry 1,600 passengers per hour in each direction. Its 105 cabins will be barrier-free and provide room for up to ten people. At peak times, the cabins will operate at intervals of just 30 seconds, thus offering high availability, maximum efficiency and optimal convenience. Around 11,000 passengers are expected to travel daily on the Câble C1 in the initial phase. The prototype of the custom cabins has already been presented, along with their safety features and real-time information. The first series of the cabins will go into production mid 2024.



Even in the rush hour, journey time along the entire route is just 18 minutes as the ropeway enables continuous operation without hindrance from other traffic participants.

Expansion of the local transit network

With five stations, the ropeway will be a valuable complement to the region's local transit network. At the same time, it will relieve road traffic and link to the metro, the bus lines and bike parking facilities. The external design of the cabins was chosen by the population in spring 2022; the first towers were erected in October 2023.

Île-de-France Mobilités is responsible for the project management of the Câble C1. The project is financed by the Prefect of the Île-de-France region, the Île-de-France region, the Val-de-Marne Department and Île-de-France Mobilités.



Coming soon



AirTrain Newark
New Jersey (USA)
Newark Liberty
International Airport

Newark Airport chooses Doppelmayr know-how

An automated Cable Liner® will bring passengers from A to B at Newark Liberty International Airport from 2029.

Newark Liberty International Airport in New Jersey is a major international airport in the New York catchment area that is due to be revitalized and modernized. As a first stage, the Port Authority responsible plans to replace the existing, outmoded transport connection by a reliable people mover system. Doppelmayr was selected as system supplier and partner in a multi-phase procurement process for the

implementation of the new AirTrain Newark. From 2029, an automated Cable Liner® will carry millions of passengers a year along a four-kilometer (2.5-mile) route between three passenger terminals, parking and rental car facilities as well as regional rail transit links.



Further information on this project can be found in the press release.





The world's steepest once-in-a-generation project

Garaventa is implementing an unprecedented ropeway project in the heart of the Bernese Alps: the Swiss Skyline 20XX.

In future, the steepest aerial tramway in the world and two wind-stable Funifor tramways will carry passengers and freight up to the Schilthorn all year round. Construction of the Schilthornbahn 20XX is currently running on schedule. Visitors to the Swiss mountains and James Bond film backdrop can soon look forward to an

unparalleled ride experience – thanks to the spacious and comfortable Carvatech cabins. Special feature: In view of the fact that a true once-in-a-generation project thinks about the future, the installation is equipped with the sustainable ESFOR energy management system from Frey Stans.



Check out the project presentation with insights from Garaventa project manager Raphael Reinle.

16

ropeway technology apprentices

from the ropeway operating company Snow Space Salzburg paid a visit to Doppelmayr in Wolfurt in July 2023 – to immerse themselves in production processes on site, exchange know-how and establish new contacts. The idea behind it: to create symbioses that enrich their training and give it a practical dimension. The visit also provided the opportunity for a trip to see the Fatzer manufacturing plant in Switzerland. In return, Doppelmayr apprentices have been invited to take a look behind the scenes at a ropeway operating company. No doubt there will also be time to try out the slopes at Snow Space Salzburg. Numerous Doppelmayr ropeway installations await the apprentices at the resort, including a very special one: the Flying Mozart.



Check out the Flying Mozart video here





OITAF 2024

Good to know ...

O.I.T.A.F. stands for Organizzazione internazionale trasporti a fune and was founded in Milan/Italy in 1959. Today, it has members from 30 nations worldwide.

2024 will see the staging of the international OITAF Ropeway Congress, which is held every six years, in Vancouver, Canada, from June 17 through 21.

The focus will be on presentations and discussions of a series of key topics, such as developments in urban and tourist areas, and the dimensions of sustainability.

To coincide with the event, there will be visits to see the record-breaking tricable gondola Peak2Peak as well as the Sea to Sky Gondola in Squamish.



Details of the varied program, presentation topics and speakers can be found on the website oitaf2024.com

9th



The 9th place was awarded to Doppelmayr in the Industry Reputation Report 2023 published by Industriemagazin. This is the first time that the company has succeeded in jumping to the top 10 of Austria's best industrial companies. The report used AI to analyze around 720,000 online

statements and evaluated them according to the six categories products, profitability, sustainability, management, employer and innovation. Doppelmayr scored, among other things, thanks to the record transport capacity of TRI-Line, the excellent business performance in 2022/23, and the large number of positive assessments on HR platforms.

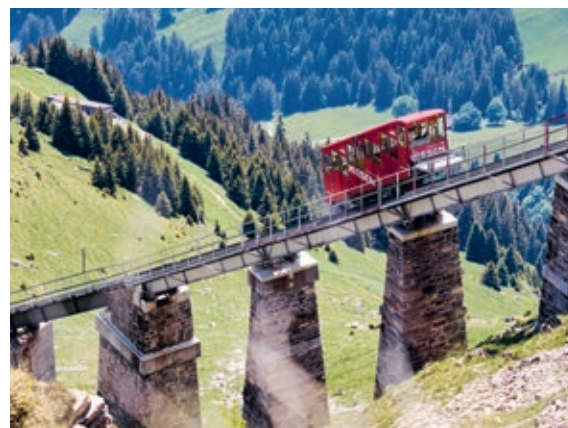
In the sector category construction engineering, Doppelmayr was ranked in second place.



6

mountain ropeways and railways

in Switzerland have been awarded Level III – leading, the top grade of the sustainability label “Swisstainable”. Niesenbahn AG now officially ranks as one of them. We congratulate the company on this great achievement!



115

participants

attended China's three-day "New Products & Technologies Forum" in Sanya, Hainan. Ropeway experts and operators took advantage of the event for discussions and networking. Doppelmayr China, who hosted and organized the successful event, presented new technologies from the market leader, first and foremost the TRI-Line and 20-MGD D-Line. In addition, visitors were given insights into autonomous ropeway operation with AURO, the energy storage system ESFOR and the control system Connect.



»The Forum provides a major platform for exchanging ideas and also helps to promote developmental dynamics in the industry.«

Alexander Klimmer
Doppelmayr Group
Executive Sales Director



Manuela Sandler, Deputy Economic Delegate of Austria's Economic Chamber at the Foreign Trade Center in Beijing, highlighted Austria's performance in winter sports and her recognition of the Doppelmayr Group in her welcome address.





Thank you!

Visions. They empower us to continually rise to new heights.
Ideas that never leave us and enable us to strive for excellence.

It was your visions and ideas that we implemented in 2023 – worldwide.

Your trust is what drives us. And that's why we want to say thank you.