

# The perfect fit for rope and rail

Aerial tramway cabins, funicular cars and specials





Cabins and special vehicles  
from CWA. Built to fascinate.





POLYBAHN

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Anything but standard



# From Switzerland to the world

On board a CWA cabin or vehicle, the trip becomes an attraction in its own right. Ever since the company was founded in 1939, it has stood for the highest standards in all areas of vehicle body construction – from visionary development to precision manufacture and customer-focused service on site.

The unique aerial tramway cabins and special vehicles are made in the Swiss town of Olten and delivered around the globe. With its products, the company

makes a significant contribution to improving mobility – at day-trip destinations, as part of experiential tourism, or in the urban environment.

Passengers get to enjoy a pleasant ride experience every trip thanks to the high level of engineering expertise, precision workmanship and outstanding vehicle design.





The fascination of creating something exceptional and the passion for building vehicle bodies are the ingredients for special vehicles from CWA.



AERIAL TRAMWAY CABINS

# Topflight experience included







Dragon Ride

# Always in the front row







Dragon Ride, Pilatus, Switzerland

55 + 1  
Passenger capacity

12  
Seats

647 m  
Vertical rise

1,387 m  
Inclined length

Since 2015, Lucerne's legendary local mountain, the Pilatus, has boasted yet another fascinating attraction: the Dragon Ride aerial tramway.

The stand-out feature of the tramway is the innovative cabins for up to 55 passengers. Inside, the spacious design resembles a cockpit with windows down to the floor. This means all passengers enjoy a place in the front row, either on one of the 12 panorama seats or from the raised standing area. Either way, the views of the surrounding mountains and Lake Lucerne are spectacular.

## Facts & figures Aerial tramways

- Cabin capacity: 25 to 230 passengers
- Transport capacity: up to 2,000 passengers per hour and direction
- Combined transport of passengers and freight possible
- Can be used in challenging terrain
- Wind-stable, sturdy and weather-resistant
- Part of the attraction at points of interest thanks to unparalleled vistas

# Progress at the highest level



The Zermatt-Furi aerial tramway sets benchmarks. As well as carrying its passengers with greater speed and comfort than its predecessor, the new ropeway runs automatically without operating personnel. Cameras and sensors ensure smooth operations and monitor the installation, in particular passenger boarding and disembarkation.

Modern cabins underline the cutting-edge technology. They provide room for up to 100 passengers and perfect views of the Matterhorn throughout thanks to their innovative design with generously proportioned glass fronts. Guests wishing to enjoy the cool air in the summer can take the rooftop ride on the cabin's balcony. Progress has always been the best driver.

## Facts & figures AURO\*

- Top safety thanks to cutting-edge safety features
- Perfect overview through CCTV monitoring in the stations
- High availability of the installation as sources of interruptions can be identified at an early stage
- The AURO operating concept can be extended to include more than one installation

\* Autonomous Ropeway Operation

100  
Passenger capacity

15  
Seats

234 m  
Vertical rise

1,680 m  
Inclined length

15  
Passenger capacity  
summer balcony

"The CWA cabin design impressed us with its floor-to-ceiling glazing. Our customers like the spacious interior and enjoy the trip."

Reinhard Lauber, Technical Director, South Division  
Zermatt Bergbahnen AG



Zermatt–Furi Aerial Tramway, Switzerland



Snowbird Aerial Tram

# Openly unique



Snowbird Aerial Tram, Utah, USA



The second generation of Snowbird cabins pays homage to its iconic blue and red predecessors dating from 1971. With their elegant design and floor-to-ceiling windows, they offer passengers a stunning 360-degree view as they climb to the top of the 2,900-meter Hidden Peak.

In the summer months, guests can take their heart rate to new heights by soaking up the views of the rocky cirque and the mountainsides of Dalton's Draw through three glass panels in the floor. But that's not all: The Snowbird cabins feature a rooftop balcony for up to 16 passengers. As the name suggests, this is where you can enjoy the views from the cabin roof, plus the flow of cool air in your face. A one-of-a-kind experience in North America.

100 + 1  
Passenger capacity

12  
Seats

884 m  
Vertical rise

2,560 m  
Inclined length

16  
Passenger capacity  
summer balcony

"We're proud of our partnership with CWA for the new Snowbird Tram. The result is two of the most breathtaking cabins in the world with glass floor panels and balcony. They open up an entirely new perspective of the beauty of Little Cottonwood Canyon for our guests."

Dave Fields, President/GM, Snowbird Ski & Summer Resort

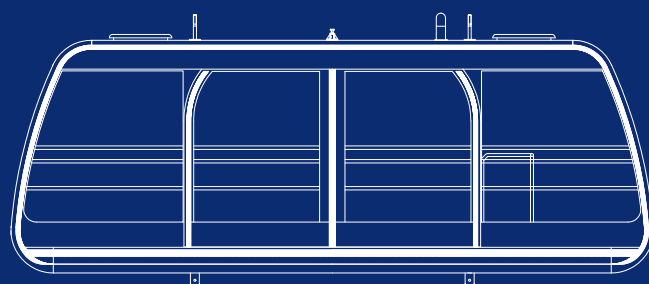




Ha Long Queen, Ha Long Bay, Vietnam

## Facts & figures KRONOS – choose your shape

- Different external contours possible
- Cabin sizes from 25 to 230 passengers
- Also suitable for transporting heavy loads (e.g. water tank or freight deck)





## Ha Long Queen

# Between the sky and the sea

The visionary means to an end. With the Ha Long Queen, an aerial tramway of superlatives was created in northeastern Vietnam to enable visitors to admire the World Heritage Site Ha Long Bay from lofty heights during the trip.

The two double-decker KRONOS cabins each have a capacity of 230+1 passengers – 130 on the bottom deck and 100 plus operator on the top.

A world record! No other cabin carries more people. Traveling at a speed of ten meters per second, the two huge viewing platforms glide across the bay at lofty heights. A trip takes roughly ten minutes and offers magnificent views thanks to generously proportioned panoramic windows. An unforgettable experience for visitors looking to enjoy the beauty of the bay up close.

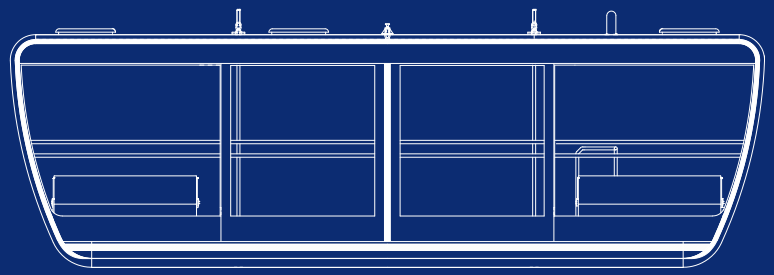
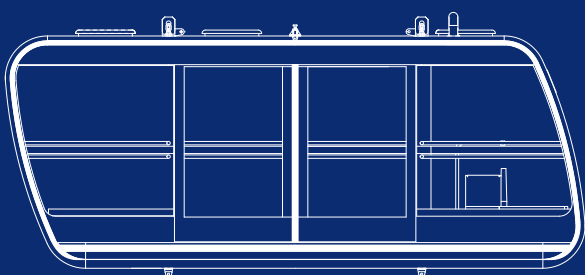


230 + 1  
Passenger capacity

20  
Seats

88 m  
Vertical rise

2,165 m  
Inclined length





# Individuality and variety



## Operator stand

The attendant has a complete overview from the raised stand in the tram cabin's shielded control center. Passenger announcements and music are controlled from here. A fire extinguisher and rescue equipment are also within easy reach.



## Panorama

Between the sky and the mountain: Generously proportioned, floor-to-ceiling windows guarantee passengers unforgettable vistas of unique landscapes. Heated windows also ensure a clear view in the winter. The view of majestic peaks, picturesque valleys and lush nature becomes an integral part of the experience passengers enjoy during their comfortable tram ride.



## Balcony

Flying high – a balcony on the cabin roof provides an additional attraction. It can be accessed via a spiral staircase inside the cabin or a separate entrance in the terminal. Once at the top, passengers enjoy breathtaking all-round views. One thing is definite: They have never reached their destination by such an exclusive journey.



## Glass floor panels

Euphoria at the press of a button with Smart Glass. The unrivaled view provided by glass floor panels ensures a thrilling experience for passengers. Normal flooring is easily fitted for winter operations.

## Seats

Seating comfort is writ large and enables relaxation. Passengers enjoy the trip on a bench along the side, on upholstered, heated seats, or on individual seats in the center of the cabin. The flexible layout concept enables the interior to be fitted out for transport capacity in the winter as well as for unique summer experiences by adding seats in the cabin center.





FUNICULAR CARS

# Moving people









# High climber



Schwyz-Stoos Funicular, Switzerland

No other funicular is steeper than the Stoosbahn. Along the route from Schwyz up to the Stoos it climbs a gradient of 47.7 degrees, giving it a world record. Unique passenger compartments were developed to provide top ride comfort when traveling over this enormous incline. Automatic level compensation ensures that the floor of the compartment remains horizontal throughout

the trip. In addition, the loading and unloading zones in the top and bottom terminals have level access and are barrier-free.

The extra-large, heated windows enable passengers to enjoy the magnificent views of the Stoos-Muotatal vacation area in all weathers. A ride experience of superlatives.





136

Passenger capacity

4 + 1

Compartments

743 m

Vertical rise

1,738 m

Inclined length



## Facts & figures Funiculars

- Ideal for transporting passengers and freight, or a combination of the two
- Ideal means of public transport: barrier-free, comfortable and congestion-free from A to B
- Long service life and high operational efficiency
- Fully automated funiculars open up new economic prospects



# The journey is the destination



The best way to reach Hong Kong's highest viewing platform – the Sky Terrace 428 on Victoria Peak – is by taking the Peak Tram. This funicular takes six minutes to complete the 1,277 m route which climbs to an elevation of 396 meters. The trip provides an unforgettable experience as the skyscrapers glide past the large panoramic windows at what seem to be impossible angles.

The Peak Tram looks back on a success story spanning over 130 years, making it the world's oldest funicular railway. It incorporates cutting-edge technology following a comprehensive modernization, while its vintage-style cars are still reminiscent of times gone by.

For many, Victoria Peak is the most spectacular sight in Hong Kong – although the journey there is an attraction in its own right, as borne out by more than six million passengers a year.

210  
Passenger capacity

167  
Seats

356 m  
Vertical rise

1,277 m  
Inclined length

4  
Cars



Peak Tram, Hong Kong, China

“Local and international tourists are overwhelmed by the magnificent sixth generation of the Peak Tram – a major driver for tourism and an indispensable attraction for Hong Kong.”

May Tsang, General Manager, Peak Tramways Company Limited





168  
Passenger capacity

16  
Seats

39 m  
Vertical rise

200 m  
Inclined length

Pfaffenthal-Kirchberg,  
Luxembourg



## Arrêt Pfaffenthal-Kirchberg

# A new era in urban mobility

The Pfaffenthal-Kirchberg funicular redefines urban transit and provides a well-conceived solution for efficient mobility. Two independent funiculars running on parallel tracks master the daily volume of commuters, enabling top availability and smooth passenger flows.

With its charming views of the valley and the Red Bridge, the Pfaffenthal-Kirchberg funicular is a highlight for everyone who enjoys watching the world go by. Which just goes to prove that this installation is more than simply part of the public mobility offer.

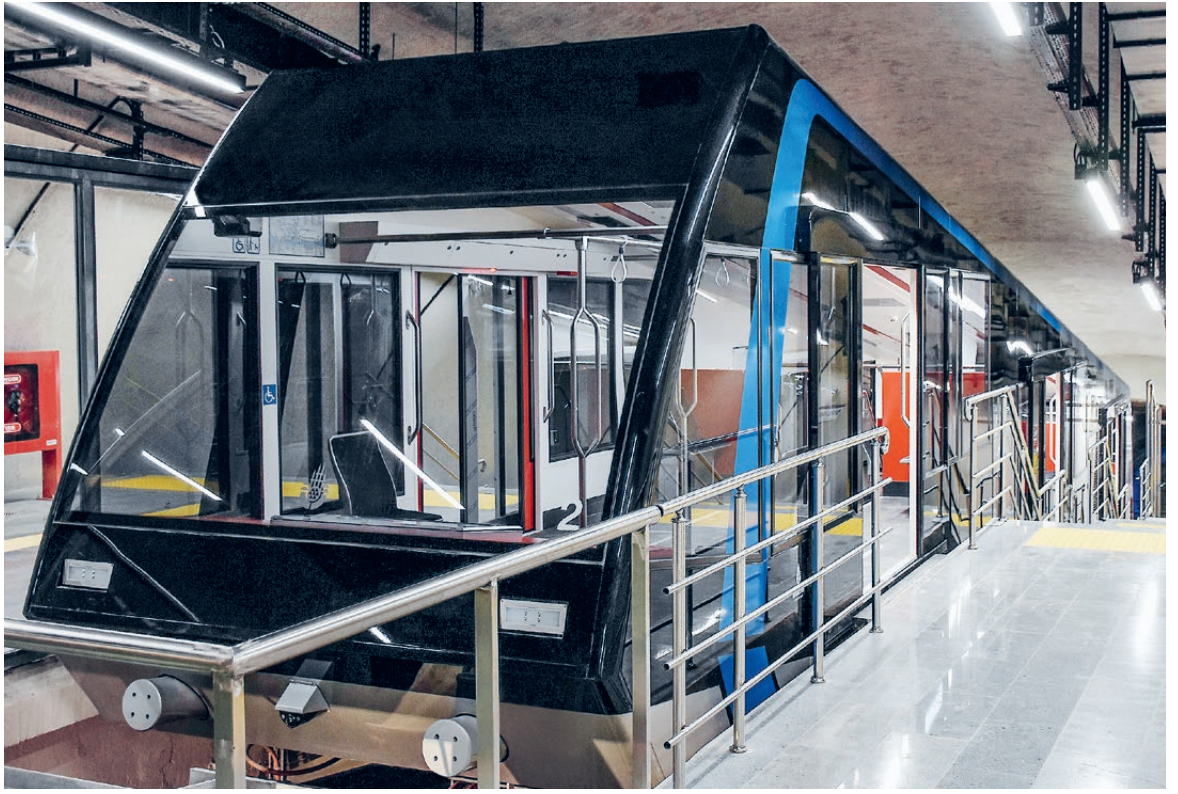


200  
Passenger capacity

20  
Seats

107 m  
Vertical rise

747 m  
Inclined length



Rumeli Hisarüstü–Aşıyan Füniküler, İstanbul, Türkiye

## Rumeli Hisarüstü–Aşıyan

# Comfort and technology in harmony

“The cars offer plenty of space and comfort as well as maintenance benefits for the technical team. The design of the interior and the color of the exterior create clearly visible accents. A big thank you to CWA for this design.”

Muhammet Altunbaş, Funicular and Cable Car Operations Chief, Metro İstanbul A.Ş

The trip from Europe to Asia is a comfortable ride on İstanbul's underground funicular from Rumeli Hisarüstü station to the Aşıyan stop and only takes a matter of minutes. This installation links the Technical University with the Bosphorus, making it a major cornerstone of the urban transit network in the metropolis.

Each of the cars provides room for 200 passengers. To ensure reliable availability, the funicular is equipped with a double drive

and an emergency drive. It also features 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 provides the energy supply for the lighting, ventilation and air-conditioning in the cars, both in the stations and on the line. This funicular combines comfortable travel with smart functionality.



## Sapa-Fansipan

# Best leading role

Doors open, roll the cameras! With its dome, high ceilings and decorative details, the elegant Sun Plaza Sapa station by American star architect Bill Bensley already gives a hint of a special trip ahead. But then what follows is truly like something out of a movie. The cars on the Sapa funicular look as if they have been taken from a film set. Fitted with antique ceiling fans, ornate struts and gold-plated metal details, this feeder train takes visitors to a plateau below

the summit of the Fansipan, Vietnam's tallest mountain, which is known as the "Roof of Indochina". Large glass windows allow passengers to admire the majestic natural beauty of the Muong Hoa Valley, the tranquil villages, and the picturesque landscape of northwestern Vietnam. Nonetheless, against the impressive interior of the funicular cars, everything else almost takes on a supporting role.



200  
Passenger capacity

24  
Seats

106 m  
Vertical rise

1,671 m  
Inclined length



Sapa-Fansipan Funicular, Vietnam



Sierre-Montana

# Climbing to new heights



SMC Funicular, Sierre-Montana, Switzerland

Discovery tour: During the trip on the SMC funicular, passengers get to enjoy a spectacular panoramic view of the Pennine Alps and the Rhône lowlands.

The cutting-edge funicular links the town of Sierre with the Crans-Montana plateau higher up. Its four-kilometer route makes this funicular one of the longest in Europe. The striking feature of the car interior is the panoramic

glass roof, which ensures efficient air circulation in the summer months as well as optimal vistas for the passengers. In addition, both cars feature a VIP compartment at the downhill end with twelve raked individual seats offering a unique panoramic view plus top ride comfort.

In the winter, the funicular is fitted with a deicing system to ensure optimal availability in the cold months of the year.







120 + 1  
Passenger capacity

42  
Seats

928 m  
Vertical rise

4,192 m  
Inclined length





# Top ride enjoyment at every angle

In contrast with conventional means of transport like streetcars and trains, which have a maximum grade of 7% and 10% respectively, funiculars master any terrain with ease. If the world's steepest cog-wheel railway on the Pilatus is impressive to look at with a grade of 48%, then the Stoos funicular, which boasts no less than 110%, is an outright sensation.

**Sapa 7%**





**Stoos 110%**

**Tiflis 53%**

World's steepest cogwheel railway 48%

Maximum railroad grade 10%

Maximum streetcar grade 7%





## Freight deck

A practical freight deck provides a versatile range of transport options. In particular, it is ideal for carrying bicycles, construction materials or catering equipment. Having a separate facility for carrying freight makes the funicular a flexible companion for a wide spectrum of requirements, without any compromises in terms of safety.

## Ventilation

The optimal temperature at all times: Innovative ventilation solutions are a major focus for funicular cars. Passive ventilation windows as well as smart ventilation concepts, active air-conditioning and heating elements can be used as custom choices to suit the region and vehicle type. CWA makes sure that passengers always enjoy a feel-good climate in any weather.





# Individuality and variety



## For a secure hold

Handholds are indispensable for standing passengers in urban applications. Vehicles from CWA offer different options like straps or grab rails attached to the ceiling. Triple vertical grab rails are particularly practical as they not only ensure safety but also passenger comfort.

## Panoramic roof glazing

So close to the sky: Laminated safety glazing, glass roofs or panoramic panels bring passengers a little bit closer to the passing landscape. Generously proportioned panoramic glazing creates a unique ride experience and enables unrivaled vistas of the surroundings. To reduce heat gain in the summer, the roof glazing can be delivered with sun protection film incorporated into the laminated glass.





A photograph of a stone wall with two arched openings. A red rectangular sign with the word 'HOGSMEADE' in white capital letters is mounted on the wall between the arches. Two black lantern-style light fixtures are also mounted on the wall. In the foreground, there are railway tracks with a concrete platform edge. Steam is rising from the tracks on the right side. The text 'SPECIALS' is overlaid in white capital letters on the left side of the image.

SPECIALS

# Anything but standard







# Wizardry on rails



Feel what it's like to be Harry Potter and his friends Hermione and Ron – in the exact replica of the famous Hogwarts Express. This funicular connecting Universal Islands of Adventure with Universal Studios Florida reproduces the live experience of traveling on the iconic steam train. Astonished faces are therefore guaranteed on the four-minute trip.

True to the Harry Potter saga, boarding takes place on platform 9 $\frac{3}{4}$  of King's Cross Station at Universal Studios, or from Hogsmeade station at Islands of Adventure. Once seated, visitors are reminded of the friends' journey to the Hogwarts School of Witchcraft and Wizardry by the interior, with its true-to-style blue upholstery, old pictures and large windows, behind which different Harry Potter scenes are screened. Even perfectly normal Muggles feel like magical creatures in this setting.

168

Passenger capacity

168

Seats

676 m

Inclined length

Hogwarts Express, Universal Orlando Resort Florida, USA





Titlis Rotair

# 360-degree vistas



Titlis Rotair, Engelberg, Switzerland

Euphoria from the very first moment. Every trip on the Titlis Rotair is something quite special: In the world's first aerial tram cabin that revolves once about its own axis during the journey.

During the five-minute ride to the summit, passengers are treated to unique vistas of the surrounding snow-covered mountain peaks, steep rock faces and deep crevasses. Who would want to disembark?



75

Passenger capacity

597 m

Vertical rise

1,493 m

Inclined length



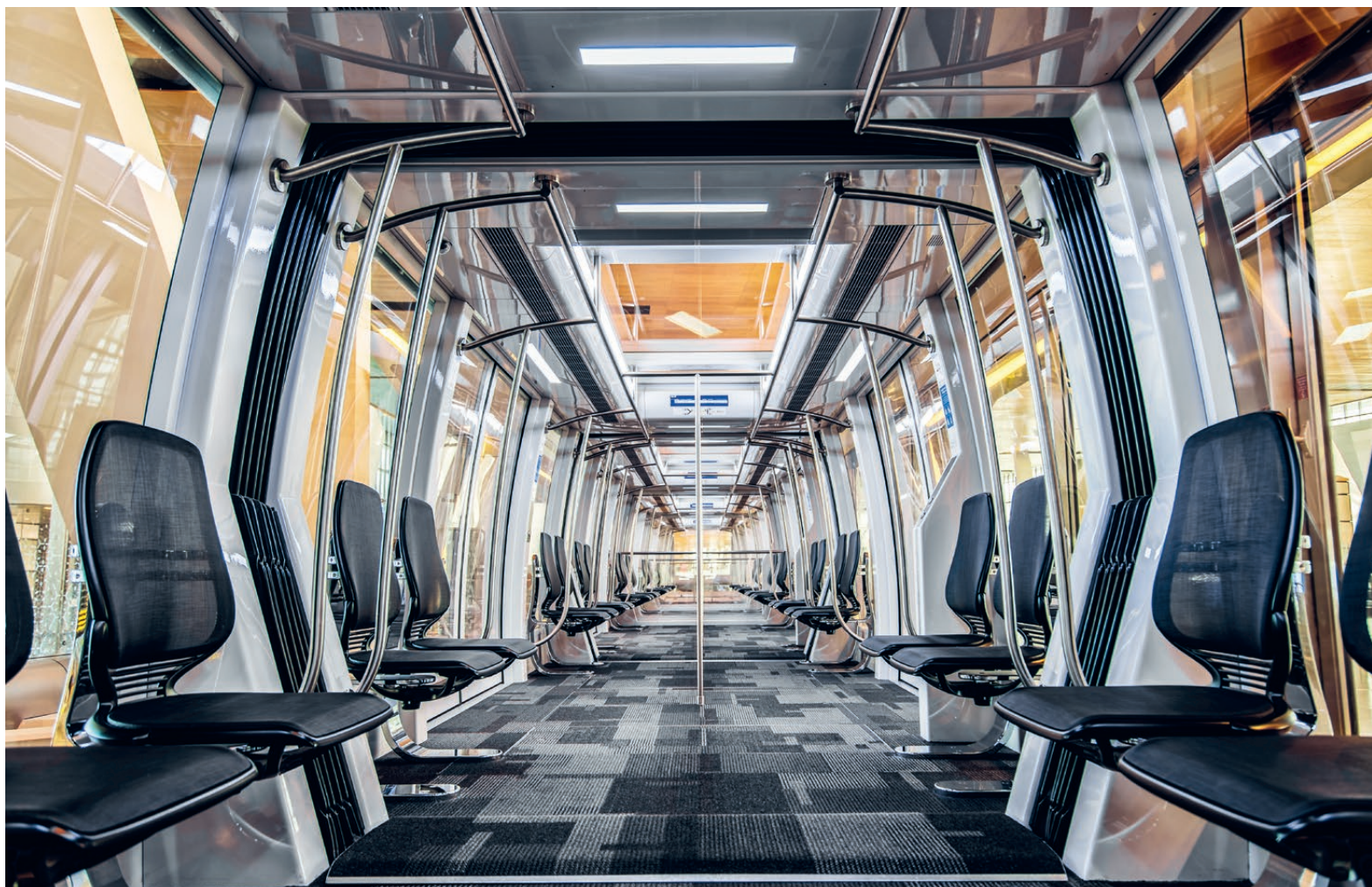
Doha Hamad International Airport Shuttle

# The future is now

Hamad International Airport Passenger Train, Doha, Qatar







192  
Passenger capacity

40  
Seats

772 m  
Inclined length

10  
Cars

Welcome to a new era. The cars on the Cable Liner Shuttle are a masterpiece of innovative engineering and aesthetics. These futuristic eye-catchers move smoothly and silently through the terminal building day and night, bringing passengers to their destination in comfort and on time. An elegant glass roof provides exciting views of the impressive architecture of the airport building as well as ensuring an airy and open atmosphere. The combination of design, technology and availability makes the Cable Liner a visionary solution in urban transport.







Scenic Skyway

# The call of adventure

Scenic Skyway, Katoomba, Australia

It awakens a sense of adventure. Less than two hours away from Sydney, the Scenic Skyway glides between cliffs and across ancient ravines in the Blue Mountains, providing breathtaking views of the surrounding landscape belonging to this Australian World Heritage Site. And that's certainly no exaggeration as the cabin floor is comprised of glass panels. Passengers watch the rainforest canopy unfolding 270 meters below their feet.

Needless to say, seating and solid flooring are available for those who are less keen on nerve-tingling experiences. The trip therefore becomes an unforgettable thrill for all, however much adventure is preferred.



85  
Passenger capacity

4  
Seats

14 m  
Vertical rise

390 m  
Inclined length



7  
Passenger capacity

7  
Seats

967 m  
Vertical rise

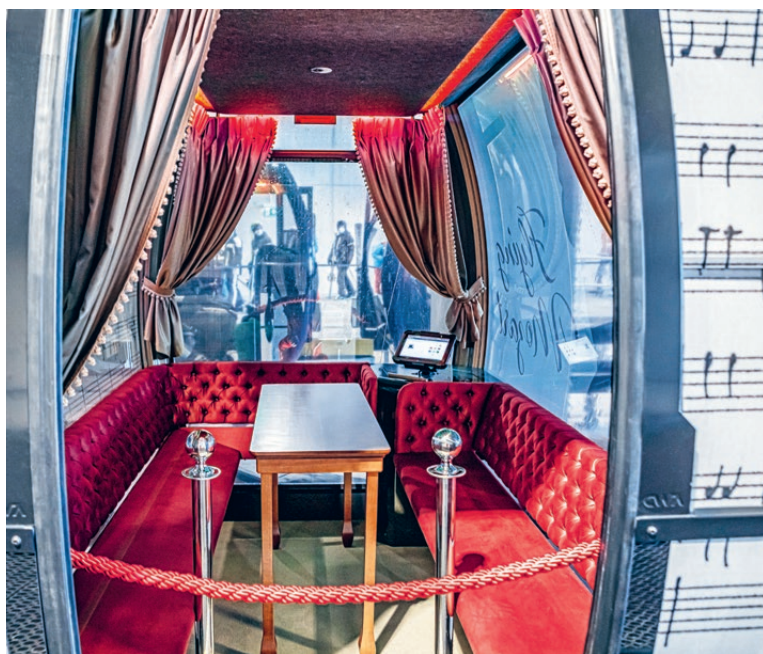
3,146 m  
Inclined length



Flying Mozart, Wagrain, Austria

## Flying Mozart

# Symphony of the senses



One thing is certain: A ride in the Mozart cabin at Snowspace Salzburg is a festival for all the senses. The interior impresses not only with its elegant fittings but also thanks to the RGB lighting and the sound system, which can be operated with the aid of a tablet. Another highlight is the selfie station where passengers can take snapshots using their ski pass.





VIP Hòn Thom

# Luxury in motion

Sit back and be amazed: Passengers riding in the VIP cabin on the world's longest tricable gondola not only enjoy the stunning views of the islands Phú Quốc and Hòn Thom but also an exceptional sense of traveling in style. The spacious cabin impresses with elegant leather seats, atmospheric lighting and all-round glazing. This is where expectations are not just fulfilled but exceeded.

8  
Passenger capacity

8  
Seats

6 m  
Vertical rise

7,900 m  
Inclined length

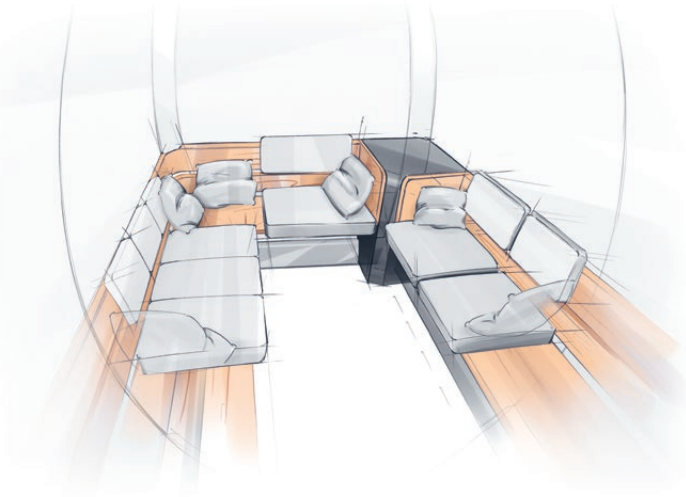


Hòn Thom VIP, Phú Quốc, Vietnam



# Creative insights

A wealth of experience in vehicle construction and craftsmanship goes into the cabins and vehicles from CWA. An equally important factor is first-class design that wows ropeway operators and their passengers alike. It begins with the outer shape and runs through to the details of the interior fittings. There are virtually no limits in terms of customer wishes, which are translated into form in collaboration with the appropriate partner. That's why CWA draws in the creativity of various designers.

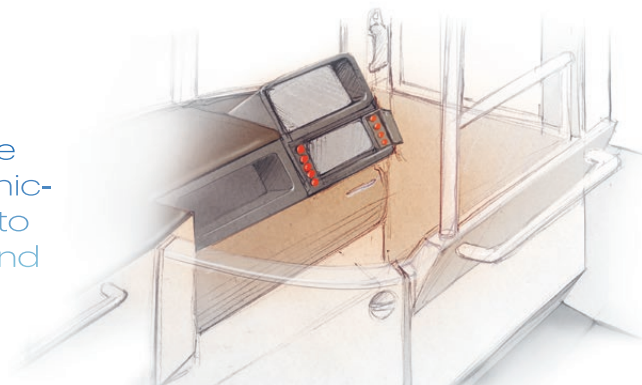


"Special vehicles, tailored in the design dialog, transform every trip into an exclusive, unforgettable experience – individual, specifically in line with customer wishes."

Albert Schuster, MOJA Design GmbH

"As a freelance transportation designer, I have worked with CWA on a number of unique funicular projects. CWA have always been happy to listen to new ideas, help find new solutions and work to the highest quality."

Prof. Peter Stevens, Peter Stevens Design



"Between the needs and ideas of the customer and the technical feasibility, there is plenty of scope for creativity."

Sergio Stanisci, CWA Designer





# VIP in a class of its own



## Special seats

Top comfort, unique experience: Exclusive special seats in VIP cabins provide not only a perfect view, but also luxury in a class of its own. Ergonomic design, premium upholstery and innovative features make every trip an unforgettable experience.



## Refrigerator

Amid varied landscapes, either against an urban backdrop or embedded in magnificent natural settings, passengers can enjoy a very special kind of VIP comfort: a modern refrigerator, discreetly integrated into the elegant interior design. Sparkling refreshments or fine wines – the refrigerator holds everything needed to make the trip unforgettable. Guests immerse themselves into a world of well-being and experience a VIP journey that not only spoils the senses but also the palate.





## Starlit ceiling

Generous floor-to-ceiling windows give passengers a clear view of the sky and create a sense of vastness and openness. At night, a light graphic comprised of sparkling light points in the panoramic glass ceiling creates an atmospheric mood in harmony with the ambience of the interior. The sight of the glittering stars in the darkness helps to create a lasting memory of the cable car journey.

## In party mood

As well as ensuring spectacular vistas, the VIP cabins offer the unexpectedly different, which makes the trip a truly exceptional experience. In an elegant atmosphere, passengers can enjoy exquisite dishes and refreshing drinks, or the wedding couple can take pleasure in quiet moments for two as they glide through the sky. All enhanced by the comforts of the VIP cabin and the unforgettable sight of the passing landscape.







“What distinguishes the Peak Line from an ‘ordinary’ aerial tramway is the sophisticated modular system.”

Arno Inauen, CEO, Garaventa AG





## Peak Line

# Innovative station concept

An impressive package: CWA aerial tram cabins in combination with the Peak Line from Garaventa – quintessential state of the art on the mountain.

The Peak Line is a new highlight in ropeway technology. Perfectly matched to the need for user-friendliness and rapid implementation, the innovative tramway station concept is the right solution for the customer's new installation.

The benefits are absolutely clear: The system is flexible in application, features a modern, attractive design with individual customizing options, and is extremely maintenance-friendly thanks to its intelligent layout concept and cutting-edge technology. The Peak Line is ideally suited to twin-track aerial tramways without track rope brake and with fixed track rope tensioning.

For further information see online:





