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# Wir



*The Andean city of Santiago de los Caballeros de Mérida has named the gondolas on its new urban ropeway after local villages. p.20*



## **Mountain link-up by aerial tram in Wagrain**

More skiing and hiking enjoyment and less traffic in the town center. p.4

## **The fastest funicular in Switzerland**

In Zermatt, the Sunnegga funicular passes through the tunnel at 43.2 km/h. p.6

## **Aerial tram provides safe connection to village**

The mountain village of Aschbach near Merano is difficult to reach by road. p.8

## **Rejuvenation in the Black Forest**

Germany's oldest continuous-movement ropeway. p.10

## **Funicular with 128 percent incline**

Australia has one of the world's steepest funicular railways. p.12

## **Urban development: New gondola lift in Rio.**

A new means of transport in the heart of Rio. p.22

*The sacred Tiantai Mountain can be reached on foot, by sedan chair – or with greater speed and comfort by riding on the recently installed gondola lift. p.18.*

 **Doppelmayr®**





## Kronplatz: Free use of WLAN during the ride

**Doppelmayr Italia is building the 10-passenger gondola lift Alpen Connecting on the Kronplatz (South Tyrol). It will go into service in the winter season 2013/14.**

**K**ronplatz in South Tyrol ranks among the most modern ski regions in the world. To ensure that it stays that way, the Alpen 6-passenger gondola lift (built by Doppelmayr in 1993) has been completely revamped and is due to start up in the 2013/2014 winter season.

The replaced 6-passenger gondola lift ran perfectly, as Matthias Prugger, president of Skirama Dolomiti/Kronplatz and CEO of Olang Seilbahnen AG, is keen to explain. "We took the decision to build a new lift despite the fact that the old one was still in very good condition. It was simply no longer state of the art."

One of the striking features of the new installation is its very long stations. This makes it possible to reduce travel speed during loading and unloading to 0.25 m/s (from the usual 0.4 m/s). The result is enhanced passenger comfort, particularly as skis are transported in external holders.

The 2,276 m Kronplatz is a mountain on the edge of the Dolomites. The area



*Matthias Prugger, president of Skirama Kronplatz (ropeway consortium) and CEO of Olang Seilbahnen AG:*

*"We place a top focus on*

*comfort. With the new lift, that begins with a cabin height of 2.10 m for convenient loading. In addition, we offer our guests leather-upholstered seats, large panorama windows and free internet connection in the stations and in the cabins. We already had WLAN access points in the bottom station, but having free use of the WLAN during the uphill ride as well is a world first!"*

above 1,000 m has been developed as a ski region and is also a popular destination for hikers and mountain bikers in the summer. The nature reserves Fanes-Sennes-Prags, Rieserferner-Ahrn and Puez-Geisler are all to be found nearby.

Three gondola lifts from Bruneck/Reischach, Olang and the Ferkelpass provide access to this extensive dome-shaped mountain with its 22 modern lifts.



### 10-MGD Alpen Connecting

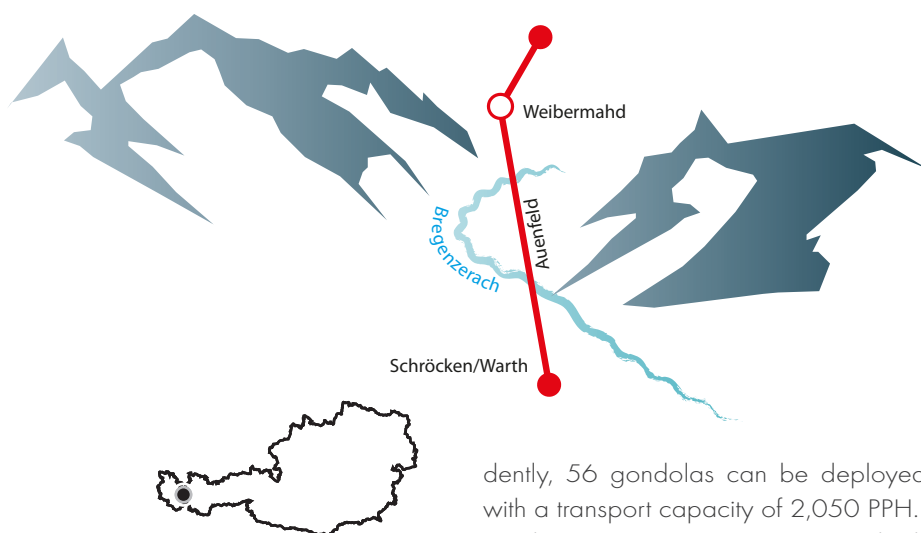
Transport capacity	3,100 PPH
Trip time	6.7 min
Speed	6.0 m/s
Cabins	75
Interval	11.6 s
Inclined length	2,200 m
Top station altitude	2,148 m
Vertical rise	534 m
Towers	14
Drive	Top
Tensioning	Bottom

# New large ski resort on the Arlberg

**The Lech-Schröcken/  
Warth ropeway  
connection via  
Weibermahd has given  
rise to a new joined-up ski  
resort and the biggest in  
Vorarlberg, says Michael  
Manhart, CEO of the  
Lech and Schröcken  
operating companies.**

To create this lift connection, the top station of the combined lift Weibermahd (altitude 1,923 m) built in 2011 has become the mid station, and from here the gondolas continue along the western edge of the Auenfeld ridge to the station in Schröcken's Saloberkopf section which is two kilometers away and 67 m vertical meters lower.

The lift can be used for through operation as far as Lech or run as an independent installation as far as Weibermahd. When this section is operated indepen-



dently, 56 gondolas can be deployed with a transport capacity of 2,050 PPH.

This connection is a great option both for skiers and for ski tour enthusiasts enjoying the avalanche-safe Auenfeld.

## 10-MGD Auenfeld-Jet

Transport capacity	1,490 PPH
Trip time	8.2 min
Speed	5.0 m/s
Cabins	42
Interval	24.2 s
Inclined length	2,072 m
Bottom station altitude	1,786 m
Vertical rise	67 m
Towers	10
Drive	Top
Tensioning	Bottom

## Continuous improvement day by day

As the winter approaches, we are working tirelessly with our customers to once again pave the way for a successful season.

That means building new lifts and inspecting existing installations as well as training our customers' operating crew.

Doppelmayr has created efficient structures for handling these requirements as well as ensuring their continuous improvement. Customers value our prompt delivery service, competent advice, direct maintenance support that can be called upon 24/7 and our fast, unbureaucratic inspections of critical parts. This season, our installation crews have already worked well over 50,000 man-hours, while the international deployments of our after-sales fitters total 14,000 man-hours and continue to show an upward trend.

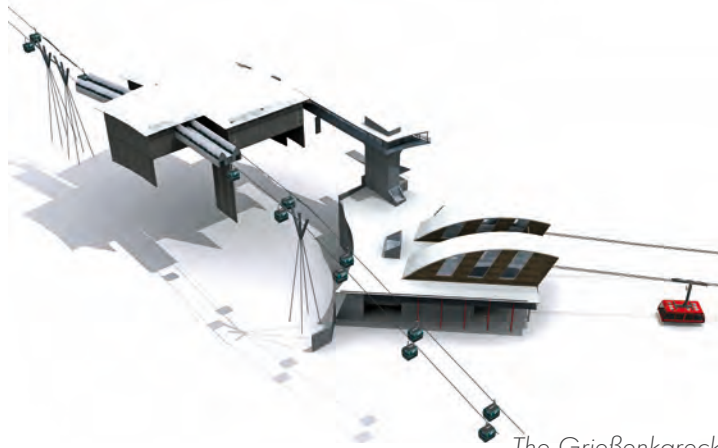
Wide and increasing popularity is enjoyed by our customer training courses, with around 1,000 participant-days completed in 2012.

We also ensure sustainability in terms of our technical personnel. In September, another 24 apprentices will be joining us, taking their total number to 85, and we also engage with technical colleges by helping to ensure practice-oriented training. At Doppelmayr/Garaventa, our general goal is to constantly strive to meet the latest needs and requirements of our customers.

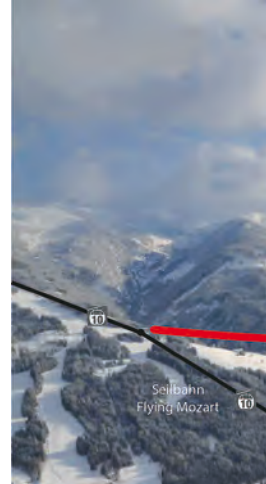
Michael Doppelmayr

## Wagrain: Link-up between 2 ski mountains

The twin-tracked reversible aerial tramway G-Link Wagrain crosses the valley between the ski mountains Griesßenkareck and Grafenberg, traveling along a two-kilometer rope span at a height of 230 m.



The Griesßenkareck bottom terminal is a separate building below the mid station of the 10-MGD Flying Mozart. The buildings are connected by an elevator tower and a bridge.



**G**-Link is remarkable for many reasons, one of them being the rope sag of up to 150m under full load.

### Innovative recovery system

With a maximum height above valley floor of 230m, descent by rope would be impossible on this installation. To avoid having to use a rescue tramway, the proven recovery system already used on the Jackson Hole tram (100-ATW; USA) is to be deployed in Austria for the very first time. It ensures that the cabins can be safely brought to the next terminal in an emergency situation.

To achieve this, all function-related parts and equipment are duplicated and independently operable.

### Low vertical rise - High engine power

The terminals are located at virtually the same altitude. The downhill cabin provides relatively little counterweight for hauling the uphill cabin. This made it necessary to install a high-powered engine.

The Salzburg holiday resort of Wagrain is situated in the heart of the amadé ski region, which is Austria's biggest.



Christoph Baumann, CEO of Bergbahnen Wagrain: "The aerial tram enhances the ski region as a whole. And we now have less traffic commuting between the base stations of the feeder lifts in Wagrain."

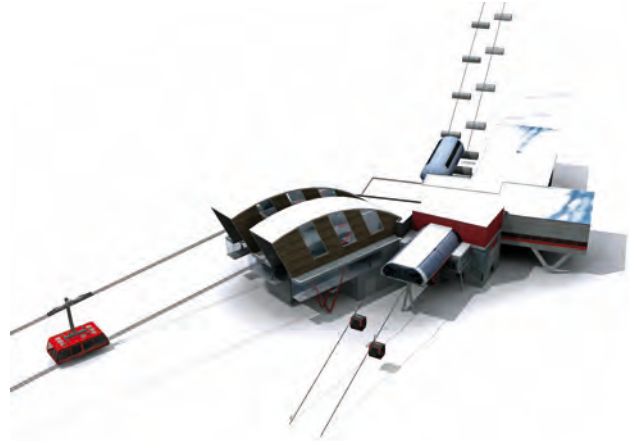
### 130-ATW G-Link

Transport capacity	1,300 PPHPD
Trip time	4.5 min
Speed max.	12 m/s
2 cabins, attended	130 P
Gauge	13 m
Ground clearance max./min.	230 m/12 m
Inclined length	2,309 m
Bottom station altitude	1,233 m
Top station altitude	1,241 m
Vertical rise	8 m
Towers	2
Drive	Top
1,596/1,822 kW	
Haul rope counterweight	Bottom
Fixed track rope anchoring	Top + Bottom





The tramway leads from the mid station of the 10-MGD Flying Mozart to the lift hub on the Grafenberg.



The Grafenberg top terminal has been built directly onto the station of the Grafenberg Express I. The platforms are located at the same level.





# Zermatt replaces tunneled funicular

**June 15, 2013 saw the start-up of the new Zermatt-Sunnegga funicular railway which acts as an important feeder from the Sunnegga-Rothorn ski area located within view of the Matterhorn (photo) in the Swiss canton of Valais.**



Markus Hasler,  
CEO, Zermatt  
Bergbahnen AG:  
"I have to compliment  
Garaventa  
on the extremely fast installation."



**T**he new funicular offers significantly higher capacity than its predecessor (built in 1980). It has two trains, each consisting of three cabins. These, in turn, are comprised of four compartments with a level floor. Each train can now carry 200 instead of the previous 170 passengers and also mountain bikes.

The compartments are longer and offer more space for each passenger. The new cabins can be opened at the front for loading freight which is then unloaded at the top station through the extra-wide side door.

## **Fastest funicular in Switzerland**

Travel speed has been increased by 20 percent to 12 m/s, which makes the Sunnegga Express the fastest funicular railway in Switzerland. The track and the stations are underground. As the bottom station can only be reached through a 200m long tunnel, auxiliary rails had to be laid to bring out the old cabins and to get the new ones onto the track. The new drive bullwheel is bigger than the old one.

To transport it through the tunnel, the bullwheel had to be dismantled into three parts and sections of the tunnel enlarged. The heavier drive system meant providing deeper foundations and a longer machinery room.

The construction work was spread over three seasons and carried out during inspection periods to allow operations to continue without interruption. In future, it will be possible to perform inspections more efficiently. A spare bogey is kept so that every year one bogey can be replaced and maintenance carried out without time pressure.

## **200-FUL Zermatt-Sunnegga**

Transport capacity	2,550 PPH
Trip time	3.0 min
Stopping time in stations	1.6 min
Speed	12.0 m/s
2 trains	200 P
Inclined length	1,521 m
Top station altitude	2,288 m
Vertical rise	677 m
Drive 1,090/1,770 kW	Top







## South Tyrol: New ropeway for local transit

**The 35-ATW Saring-Aschbach not far from Merano has been back in service since July 2013 after undergoing a full rebuild.**

**T**he immaculate mountain village of Aschbach (1,360m) belongs to the municipality of Algund which borders on Merano. There are only two ways of reaching it from the Etschtal far below: either via a narrow, 12 km long log hauling road or by aerial tramway from the district of Saring.

### *Poor road connection*

As the forest road is so narrow that meeting an oncoming vehicle is always something of an adventure, the aerial tramway is the preferred means of transport for Aschbach's residents.

### *Going to work or school and receiving milk, mail and visitors*

The tram is used by commuters on their way to work and by children heading for school or kindergarten. It also enables farmers to transport their milk down to the valley and things like bread, mail and medical services to be brought up to the village. Hikers and summer guests staying at the farms also take the tram. Aschbach is a small place: 43 residents, a few scattered farms and a pub but no hotel.

The area is popular with hikers and mountain bikers. However, the old 10-passenger tramway built in 1971 had a decisive drawback. It was no longer capable of meeting contemporary needs. This often resulted in waiting times of several hours and deterred many guests from making the journey. (Despite this, 70,000 passengers were carried annually.)

Mayor Ulrich Gamper is convinced that the community will now be able to put the long waiting times behind them. Furthermore, the new terminal buildings provide more space for waiting guests. A large multi-purpose space is available in the upper terminal, which can be used by the residents of Aschbach for holding events. It also serves as a waiting room

with refreshments where people can shelter in the case of sudden bad weather.

### *Very high wind resistance*

With two track ropes, the tram is comfortable and wind-resistant. This will significantly reduce the number of days when the tram is unable to operate due to wind conditions. Up to now, this happened on 25 to 30 days a year.

### *Connection to public transport*

The tramway remained closed from October 20, 2012 through to July 20, 2013 for the modernization work. Its return to service provided the Algund municipality with the occasion for a public celebration. School children, a local band and all the residents joined in the party, and took advantage of a free ride to mark the opening. "We want to make the tram a fully integral part of the public transport network," said the mayor. "It will then be possible to use it with the bus or train ticket." In the meantime, residents of the Province of Bolzano, Algund and Aschbach enjoy preferential fares.

### **35-ATW Saring-Aschbach**

Transport capacity	340 PPH
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Trip time	7 min
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Max. speed	10 m/s
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Cabin capacity	35 P
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Inclined length	2,500 m
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Top station altitude	1,349 m
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Vertical rise	827 m
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Towers	1
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Nominal output of drive 280 kW	Bottom
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Haul rope counterweight 18 t, mech. tensioned	Top
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Track rope fixed anchoring	Top + Bottom
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Mayor Ulrich Gamper sums up Doppelmayr Italia: professional, deliver on time, their word is their bond.



35-ATW  
Saring-Aschbach:  
The cabins are decorated with an owl, an emblem chosen by the citizens of Algend in a referendum. From time to time the emblem will be changed and is aimed at boosting media presence as well as providing an additional advertising effect. The idea came from students at Faculty of Design and Art at the Free University of Bolzano.







## Makeover for the world's oldest continuous-movement ropeway

**On April 30, Germany's longest continuous-movement passenger ropeway was reopened after undergoing extensive modernization. The 3.6-kilometer-long installation also ranks as the oldest bicable ropeway of its kind in the world.**

**T**he gondola lift was Germany's first when it originally went into operation back in 1930 and was upgraded in 1987/88, then again in 2012/13.

The rejuvenation project called for great sensitivity. As well as being a protected piece of heritage, the Schauinslandbahn is technically unusual. The cabins are attached to two parallel haul

ropes. (On a bicable gondola, the cabins are usually suspended from a track rope above the haul rope.) The track ropes are tensioned by means of concrete counterweights in the mid station, which is now out of service. The reason for this was that in 1929 it was neither possible to manufacture track ropes in a length of 3,900m nor to transport such heavy loads. – The ropes weigh 54t. To resolve this problem, they were guided to the counterweights in the mid station by means of tensioning ropes and wooden-lined bullwheels. The rope reserves are in the bottom and top stations.

### 11-BGD Schauinslandbahn

Transport capacity	700 PPH
Trip time	15-20 min
Speed	4 m/s
Cabins	37
Interval	57 s
Inclined length	3,565 m
Top station altitude	1,219 m
Vertical rise	746 m
Towers	7
Drive	Top
Tensioning	
Track ropes	Mid station
Haul ropes	Bottom station

### Adaptable to visitor volumes

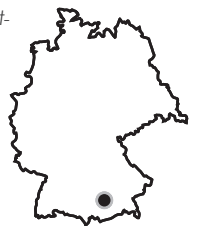
Rather than merely being slowed down for loading and unloading, the cabins are brought to a halt. The cabin stopping times can be adjusted to suit visitor numbers without reducing travel speed. The doors are now opened and closed when the cabin is stationary, whereas previously they were not closed until the cabin was already moving off.





Günter Voigt (technical director) and Christine Kury (commercial director) of the Schauinslandbahn: "Garaventa deserve great praise for the way they went about

the delicate task of rejuvenating a vintage lift that is well into its eighties, simultaneously complying with legal requirements and the need to protect heritage."




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### **Good access to the public transport network**

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The lift is owned and run by Freiburger Verkehrs AG (VAG), a local transport operator which is wholly owned by the City of Freiburg and runs four streetcar as well as 22 bus lines.

The Schauinslandbahn is not integrated into the public transport network but can be reached from the city center in half an hour by streetcar and bus. Passengers who present a regional ticket are given a considerable price reduction. Operating hours: daily from 9 am to 5 pm.



## 128 percent: The steepest funicular in Australia



**The Scenic Railway in Australia's Blue Mountains ranks among the steepest funiculars in the world. It has been completely replaced and reopened to the public at Easter 2013.**

The track was replaced in four stages to enable continued use for the installation work as well as allowing the Scenic Railway to remain open to the public. The stations have also been completely rebuilt. The bottom station has two platforms, one for loading and the other for unloading passengers, while the top station has just one. For safety reasons, the new drive system has been duplicated. Rather than dismantling the old drive, it has been retained as a show-piece. In the event of an interruption in the public electricity supply, power is provided by a 2MW generator.

### Interactive multi-tilt seats

The train carries 84 passengers, matching the capacity of a typical Australian tour coach, and consists of four individual cabins with gull-wing doors that open upward. The bench seats can be tilted up to 20 degrees. This gives visitors a choice when getting on the train. Besides the "Original" 52-degree position, the more daring can opt for the "Cliffhanger" ride at a steep 64-degree incline, while those seeking a more relaxed journey select the "Laid Back" option. The four glass-roofed cabins offer spectacular views of the rainforest and deep ravines.

### 84-FUL Scenic Railway, Katoomba

Transport capacity	670 PPH
Trip time	1.8 min
Stopping time in stations	2 min
Speed	4 m/s
1 train with 4 cabins	84+1 P
Inclined length	325 m
Vertical rise	210 m
Gauge	1,235 mm
Drive 530 kW	Top

To create the feel of an open-top ride experience, the cabins are open at the sides but nonetheless safeguarded with fine gauge wire meshing to stop children from putting their hands through. This would be very dangerous in the narrow, 70 m long tunnel. The complete train is 24 m in length.

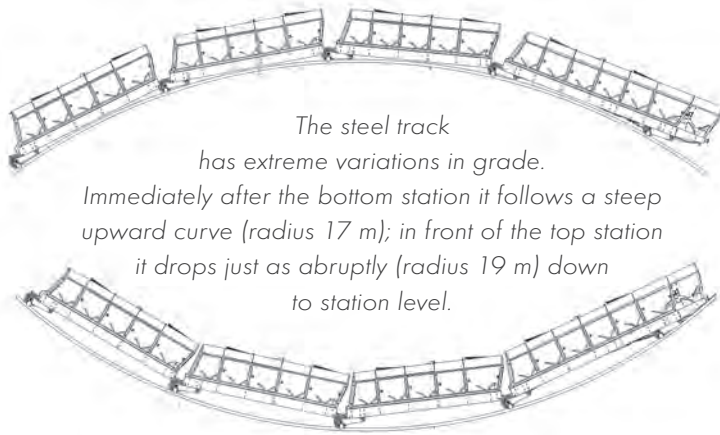
The Hammon family acquired ownership of the Scenic Railway (previously known as the "Mountain Devil") in 1945. Since then, 25 million passengers have been carried.



Chief financial officer David Hammon and chief engineer Anthea Hammon are joint managing directors of the Scenic World operation and the third generation of family owners. "We chose Doppelmayr/Garaventa because experience has shown they can meet our high quality standards. We already have two Garaventa aerial tramways, the Skyway and the Cableway, which are 9 and 13 years old respectively and have been excellent in terms of reliability and serviceability. We also knew that buying a Garaventa funicular would give us systems with design similarities. This makes operation and maintenance much easier as our staff are already familiar with the technical set up and layout."







The steel track  
has extreme variations in grade.  
Immediately after the bottom station it follows a steep  
upward curve (radius 17 m); in front of the top station  
it drops just as abruptly (radius 19 m) down  
to station level.



### The appeal of the Blue Mountains

Katoomba is a city of 7,700 inhabitants situated 110 km west of Sydney. The name Katoomba is a derivative of the Aboriginal word for falling water and refers to a waterfall which is one of the local attractions. Coal was mined here from 1878 to 1930. The original railway built in 1885 was used to transport the coal to the plateau. Since the closure of the mining operations, the railway has been used exclusively by tourists.

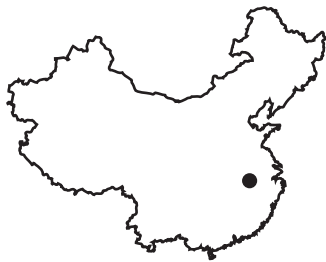
Max. grade 52° (128%)





## Inch by inch into the Yellow Mountains

**Construction of the funicular railway in the Yellow Mountains of Huangshan-Xihai had to be performed with painstaking attention to detail. The absence of access roads meant having to dismantle the cabins, and a total of five temporary ropeways were installed to transport materials and equipment.**

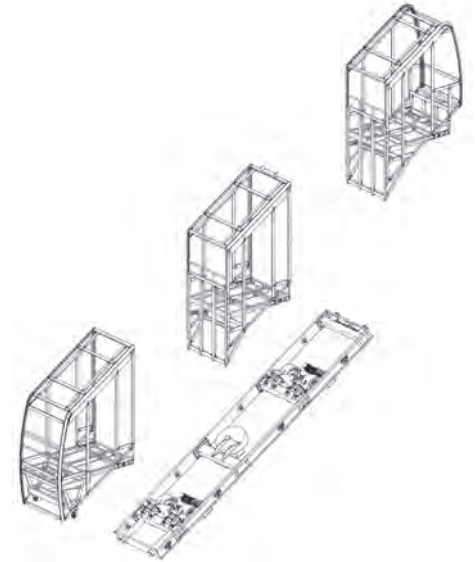


**T**he city of Huangshan has a population of 1.5 million inhabitants and can be reached by various forms of transport: by train from Shanghai (in 13 hours), by ship on the Yangtze River and by plane from throughout China. A 90-minute bus ride from the city takes visitors along a winding mountain road past picturesque villages, steep ravines, dark forests and hot springs to the Huang mountain range whose rocky flanks emerge bathed in yellow light from the morning mists.

The new Doppelmayr/Garaventa funicular descends deep into the Xihai Grand Canyon and saves a five-hour hike. Along the journey, the train stops to allow passengers to take photos.

### 60-FUL Huangshan-Xihai

Transport capacity	790 PPH
Trip time	4.6 min
Speed	8.0 m/s
2 trains	60 P
Inclined length	895 m
Top station altitude	1,703 m
Vertical rise	495 m
Drive 500/700 kW	Top



The difficult terrain made it necessary to build five material ropeways for the installation work. The cabins were designed so that they could be dismantled, loaded in containers and then reassembled rapidly without having to use a crane. This called for the special design of mechanical parts and cable connections. Because of the weight limit on the material ropeways and the size of the containers, individual parts could not exceed 3 t. The auxiliary rope used to install the haul rope also had to be taken up the mountain on the material ropeways.

*Anyone wishing to walk part of the route can board or leave the train on request in the mid station.*









## New funicular for Niagara Falls

**The Von-Roll funicular on the Canadian side of the mighty Niagara Falls, which lie on the eastern US-Canadian border, has been entirely modernized after 47 years. Although short in length, this ropeway holds the record for being Northern America's slowest funicular railway.**

**And it also offers an unforgettable view of the roaring masses of water.**



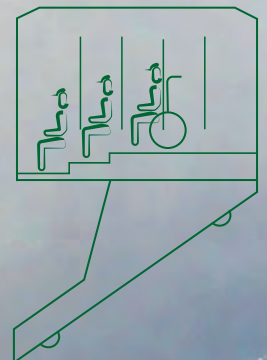
**T**he sight of this mighty natural spectacle is precisely the reason for the funicular's leisurely pace. Along the 1.5-kilometer crest line, an average water volume of 1,843 m<sup>3</sup> per second plunges 51 m in depth over the three waterfalls of the Niagara River, collectively known as the Niagara Falls. (By way of comparison, the statistics of Europe's biggest waterfall: The Rhine Falls near Schaffhausen are 23 m high and 150 m wide with a flow rate of 700 m<sup>3</sup>/s).

### *At the heart of the resort*

The two-track funicular lies in the heart of the Niagara Parks leisure resort and provides the most convenient link between the hotels on the plateau above and the Table Rock Welcome Center with souvenir shops, information center and large restaurant near the Falls below. From the Fallsview Tourist Area, visitors can easily reach the Bridge of Flowers pedestrian crossing over the Niagara Parkway sight-

seeing and access road, and continue on through the water park to the parking lots and casino.

The railway has been rebuilt to meet accessibility standards as outlined in the Accessibility for Ontarians with Disabilities Act, 2005 (AODA). Thanks to the new open stations and the new cabins, which are level in the front half and only raked in the back, wheelchair users can now make their own way into the cabin. And all passengers can enjoy an unhindered view of the Falls – not just those sitting at the front, as was previously the case. The funicular's tracks, drive and control system have also been replaced.







**40-FUL Niagara Falls  
Incline Railway**

Transport capacity	1,050 PPH
Trip time	48 s
Speed	1.2 m/s
2 trains	40 P
Inclined length	57 m
Vertical rise	33 m
Winch drive 63/107kW	Top

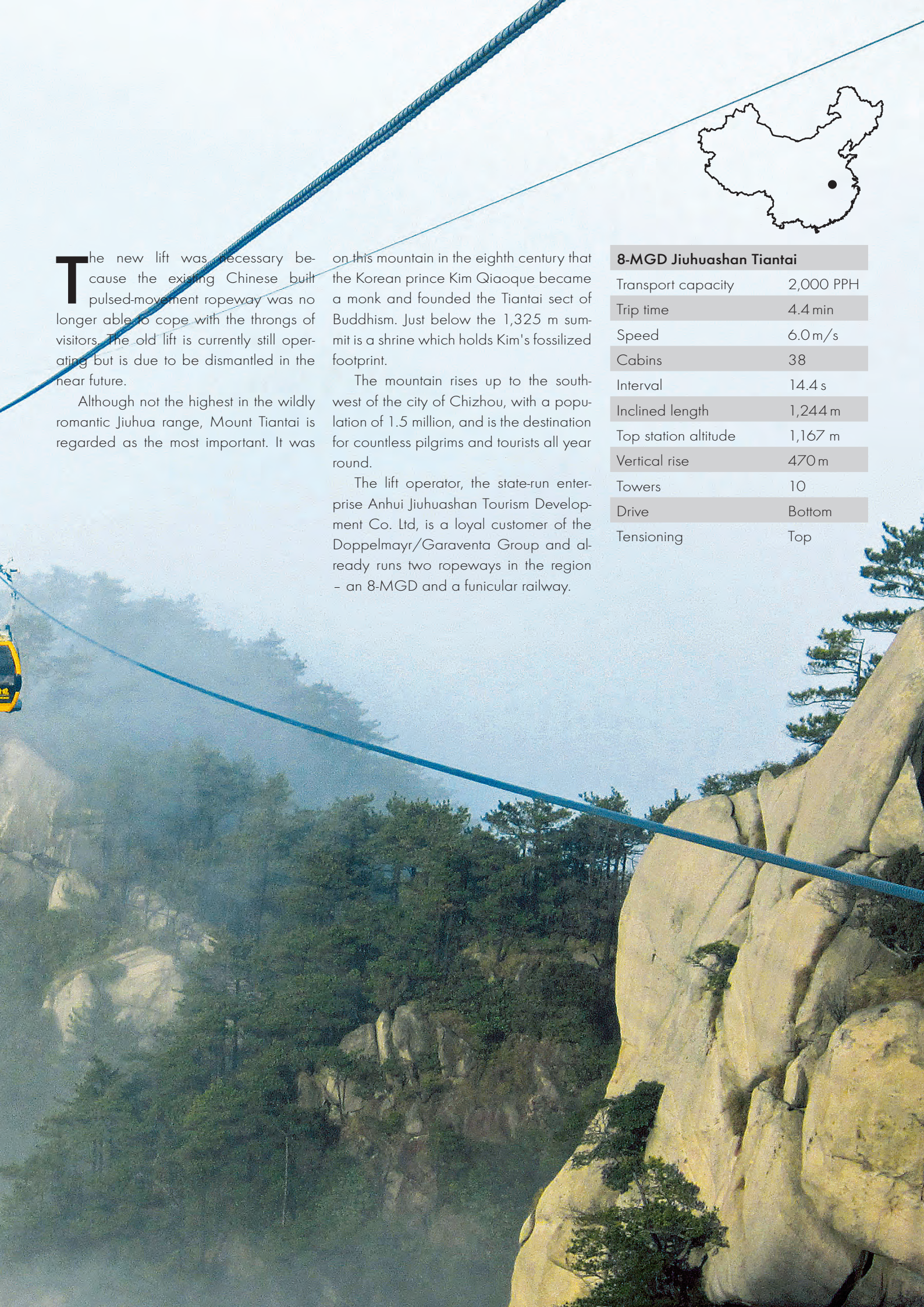


# New lift on the sacred Tiantai Mountain

Doppelmayr has  
built an 8-passenger  
gondola lift on one of  
the holiest mountains  
for Chinese Buddhists.







**T**he new lift was necessary because the existing Chinese built pulsed-movement ropeway was no longer able to cope with the throngs of visitors. The old lift is currently still operating but is due to be dismantled in the near future.

Although not the highest in the wildly romantic Jiuhoa range, Mount Tiantai is regarded as the most important. It was

on this mountain in the eighth century that the Korean prince Kim Qiaoque became a monk and founded the Tiantai sect of Buddhism. Just below the 1,325 m summit is a shrine which holds Kim's fossilized footprint.

The mountain rises up to the southwest of the city of Chizhou, with a population of 1.5 million, and is the destination for countless pilgrims and tourists all year round.

The lift operator, the state-run enterprise Anhui Jiuhuashan Tourism Development Co. Ltd, is a loyal customer of the Doppelmayr/Garaventa Group and already runs two ropeways in the region – an 8-MGD and a funicular railway.



#### **8-MGD Jiuhuashan Tiantai**

Transport capacity	2,000 PPH
Trip time	4.4 min
Speed	6.0 m/s
Cabins	38
Interval	14.4 s
Inclined length	1,244 m
Top station altitude	1,167 m
Vertical rise	470 m
Towers	10
Drive	Bottom
Tensioning	Top





*Each cabin is named after a village in the state of Mérida, which has Santiago de los Caballeros de Mérida as its capital.*



## Gondola lift for the caballeros

**In December 2012, the 8-MGD Río Chama, known as the TrolCable, was opened in the city of Mérida in the Venezuelan Andes. It forms an integral part of the city's transport network.**

8-MGD Río Chama	
Transport capacity	1,827 PPH
Trip time	2.5 min
Speed	5.0 m/s
Cabins	19
Interval	15.8 s
Inclined length	444 m
Top station altitude	1,575 m
Vertical rise	151 m
Towers	6
Drive	Top
Tensioning	Bottom





One million people live in and around Mérida, the “ciudad de los caballeros”, which lies at an altitude of 1,700m and is capital of the province of the same name in western Venezuela. The city is situated within sight of the country’s highest mountain, the Pico Bolívar (4,981 m), with its glaciers. Mérida sits in a valley between two rivers: the Río Chama to the east and the Río Albarregas to the west.

### *Three minutes to the city center instead of 90*

Thanks to the TrolCable, people who live in the Río Chama basin now have a much

shorter route to the city center. While the journey by road takes roughly an hour and a half, the gondola lift gets there in just three minutes. Both TrolCable stations

“  
The people here are  
incredibly enthusiastic  
and completely identify  
with their gondola lift.”  
”

can be reached by public transport. At the base station in the city, passengers can transfer to the trolleybuses belong-

ing to the municipal network owned by Trolbús Mérida, C.A. (Tromerca).

The new gondola lift has met with an enthusiastic response from the public. Tromerca president Ing. Miguelangel Rojas Uribe (photo) explains the importance of the new transport system: “At the moment, we are carrying 16,000 passengers a day and expect to see that figure rise to 22,000 in the near future.

Passengers currently travel free of charge but we shall be introducing a socially acceptable fare at a later date.”



Photos: Germán Saavedra  
Tromerca Press Department





The gondola lift was built in 15 months. It is part of the City of Rio's Porto Maravilha project, one of the biggest urban modernization projects in Brazil. By the time of the 2016 Olympics, the port district will be given an entirely new look.

## New gondola lift in Rio

**The new urban ropeway is also used by tourists as it provides outstanding views of the Port of Rio de Janeiro, Guanabara Bay and the city center.**



Using the word “favela” – or shanty town – to describe this community actually says very little about the character of the place. Morro da Providência benefits from a top location not far from the city center as well as views of the ocean. World Cup football will be coming in 2014 and the Olympic Games in 2016. The large stadiums are not far away.

### ***Above the tightly packed sea of houses***

In Morro da Providência, the densely arranged dwellings have spread their way up the 115-meter hillside. It was perhaps no accident that the name “Providence Hill” was chosen. The favela ends abruptly on two sides and slopes away

### **10-MGD Providência**

Transport capacity	3,000 PPHPD
Trip time	4.5 min
Speed	5.0 m/s
Cabins	46
Interval	9.6 s
Inclined length	721 m
Towers	9

gently elsewhere. Nobody really knows how many people actually live there, but estimates put the population at between ten and twenty thousand.

### **Major development project**

The ropeway is one of the major prestige projects of the new Rio. It is aimed at con-





The new urban ropeway is also used by tourists as it provides outstanding views of the Port of Rio de Janeiro, Guanabara Bay and the city center.



walk through the winding, unsafe streets and alleyways. Residents who came from the other side of the hill and wanted to get to the main train station or the central bus station took the shortest route through a 600m long tunnel with high volumes of traffic.

### **Workers, samba dancers and tourists**

If you want to work, you have to commute. The fact that the gondola lift has a station near the Cidade do Samba (Samba City) is very significant. Samba schools employ a lot of people who work all year round on preparations for the carnival.

What is certain is that the new gondola lift makes life a whole lot easier. The end stations are located on either side of the hill with a mid station at the top in the heart of the favela. The gondola lift is the shortest connection from the district of Gamboa to the transport hub in the city center.

necting Providência “to the asphalt”, as the locals say. Up to now, local transport consisted of squeezing into a minibus or calling a moto taxi – motorbikes who take a passenger on the back, charging 2 reais (80 euro cents) for the short trip. And these means of transport are not officially authorized. For the people who live on the hill, the alternative was a long



## Rapid annual service in Athens

**In summer 2013, as usual, the Funitel which opened on Mont Parnes near Athens in 2006 underwent an annual service with the help of Doppelmayr's after-sales team.**

**T**he Funitel climbs 572 vertical meters and gives passengers a fantastic view of Athens. Visitors to the casino or the national park can travel free of charge to the top of Mont Parnes which rises up majestically to an altitude of 1,055 m.

The Funitel was built to replace a 34-year-old aerial tramway. It has twenty-one 20-passenger cabins as well as two 6-seater VIP cabins and runs round the clock on 363 days of the year carrying one million passengers up to the Regency Casino on Mont Parnes. In the seven and a half years since the Funitel first went into service, it has completed well over 58,000 operating hours.

A seven-hour routine maintenance session is carried out every Wednesday. And week in, week out, the replacement bus service is shown to be far less popular than the ropeway.





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**Great appreciation for  
the professionalism of the  
Doppelmayr after-sales team**

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Funitel technical director Panos Karamertzanis is pleased he can rely on the services of Doppelmayr's after-sales team for the annual inspection. He greatly appreciates the professionalism of the people from Doppelmayr.

They take great care and do the job very quickly. "It would be far from easy for us to muster up good mechanics, electricians, hydraulics engineers, control specialists and so on to carry out the large number of different tasks required during the short time-frame available for the annual service. And in any case, they wouldn't have the routine. With Doppelmayr, you get an experienced team."

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***"When I ask for a Doppelmayr technician, I get one within 24 hours!"***

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In addition, Karamertzanis explains that if he needs any assistance at other times, the response is always swift and unbureaucratic. A technician can be on site within 24 hours if necessary. "But that only happens once or twice a year at the most." His own team normally has the ropeway system firmly under control. "We have no problems whatsoever with spare parts. First, we keep a lot of things in stock and second, express shipments from Wollurt



can be sent at short notice."

Panos Karamertzanis has been in the ropeway business for

a long time and technical director responsible for the Mont Parnes Funitel since 2006. He is extremely happy with this role: "The owners have never had to ask me why there's unscheduled downtime on the lift." Being able to work with the world's biggest ropeway manufacturer is a great advantage, and particularly when their after-sales service "reacts quickly, has good ideas when it comes to resolving problems and can be reached 24/7."





## Impressed course participants

**600 ropeway employees – including operations managers, drive operators and lift attendants – have taken part in 30 specialist courses at the Doppelmayr training center in Wolfurt this year.**

Courses and instructors have been given consistently high marks by participants. Three of the people who took part in the Advanced Course in HD 25 Drives and Hydraulics, which was held in Wolfurt in the spring, gave us their comments:



Jason Sedgwick, Whiteface Mountain, USA; lift maintenance and hobby trapper

*specialized in hunting beaver. His ski region lies in New York State and is not far from Lake Placid, which hosted the 1980 Winter Olympics. "I wanted to come and get to know the number one ropeway manufacturer and the country where our ropeways originate at first hand. And I'm impressed: First by the corporate culture, second by the professionalism of the presentations and third by the surroundings."*







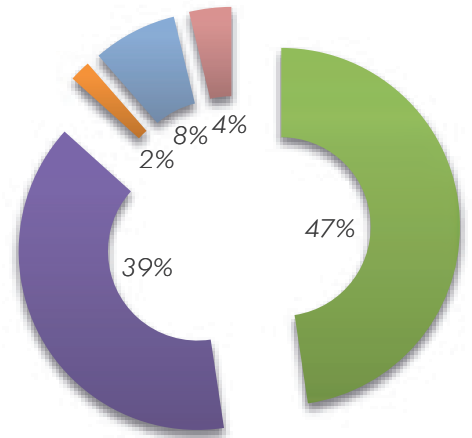
Jonathan  
Gingras,  
Ing. MBA,  
directeur  
régional  
des services  
d'entre-  
tien et  
d'aména-

ment (manager responsible for maintenance and development) for the neighboring ski areas of Mont Sainte-Anne and Stoneham, roughly half an hour's drive north of Québec on the St. Lawrence River. "Needless to say, we're provided with manuals for our lifts and get on fine with them. But, as an engineer, it's great to meet the people who actually design the lifts face-to-face and to be able to put questions to them. On our tour of the production facilities I particularly noticed how neat, well organized and highly professional everything is. And the people who work here all seem happy in their jobs."

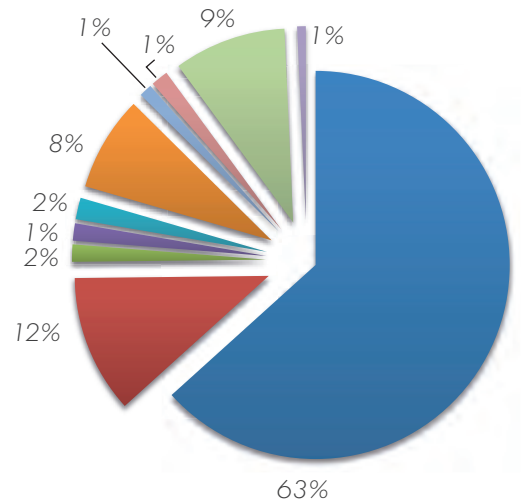


Garret  
Swygman,  
Alyeska Re-  
sort, Alaska,  
USA; lift  
mainte-  
nance  
supervisor.  
The ski

region can be reached in 45 minutes by car from Anchorage. Alyeska has the two only detachable lift systems in Alaska. Garret was keen to get to know the people responsible for developing and designing Doppelmayr lifts and for customer service. "For me, it was also a valuable experience being able to exchange views with colleagues from other countries. They have exactly the same problems, concerns and challenges as we do in Alaska."



Participants by occupation			
Ops manager	MDs		
Electricians	Station crew		
Drive op.			



Participants by country in %			
AT	ES		
DE	SE		
PL	NZ		
CZ	FR		
SK	Others		





### Open-top tram made of LEGO

A replica of the Stanserhorn Cabrio® tram was on display at the LEGO exhibition ItLUG 2013 in Ballabio (Italy). The builders had already created a replica of the 3S Rittnerseilbahn (Bolzano) for ItLUG 2009; this was also shown at the InterAlpin trade fair in Bolzano.



### Visit from Austrian President

Austria's President, Dr. Heinz Fischer, joined Federal Chancellor Werner Faymann on a visit to Doppelmayr Wolfurt in mid-July. The company was praised for its achievements as technology leader, employer and training provider for tomorrow's qualified technicians.



### Quintuplets

Fernando Garcia (Doppelmayr USA) and his wife Guillermina have become the proud parents of quintuplets: three girls (Esmeralda, Fatima, Marissa) and two boys (Fernando und Jordan). The babies are doing fine and the family live in Salt Lake City, USA. Congratulations and a high-five!



### Fun with Skippy

**Hi kids!** Here I am again! Not long ago I was in beautiful Switzerland and took a ride up the Stanserhorn on the Cabrio® tram. You can stand on the top deck and look out all around! Imagine the great view of the mountains and the lake (Vierwaldstättersee), and feeling the wind in your face! The two pictures aren't exactly the same. Can you spot the 10 differences?

