

# WIR

The Customer Magazine of the Doppelmayr/Garaventa Group Issue 1/2018

 Doppelmayr®

  
GARAVENTA

43rd Year/No. 204

## Olympic Games

Peak performance connects

## Aerial tramway of superlatives

The ropeway installation on the Zugspitze breaks three world records

## First class in Kleinwalsertal

Two D-Line gondola lifts on the Hoher Ifen

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## Olympic Games

Doppelmayr/Garaventa shares a long history of success with the Olympic Games.



Photos Zugspitze © Bayerische Zugspitzbahn, Bergbahn AG - Max Prentel



## D-Line on the Patscherkofel

The frequent host to the Winter Olympics, Innsbruck in Tyrol, chooses the latest ropeway technology from Doppelmayr for the new lift up to its local mountain.



## The new Doppelmayr program of courses

The requirements-based selection of courses and individual training seminars helps to promote smooth operations and cut the service requirements of ropeway installations.



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### World-record ropeway on the Zugspitze

The reversible aerial tramway with the greatest vertical rise, the highest lattice tower and the longest unsupported rope span on Germany's highest mountain.



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### Cable Liner to Luton Airport

From central London to the international airport in just 30 minutes – all thanks to Doppelmayr Cable Car.

## A year dominated by innovations



Another strong year lies behind us. We have achieved a great deal and given customers our full support during the implementation of their ropeway installations, irrespective of whether these involved a world-record aerial tramway on Germany's highest mountain, two new D-Line gondola lifts as part of the ski resort upgrade on the Ifen, or several lifts for the private ski and golf club in the Yellowstone/USA. Whatever the location, all the guests can rely on a new level of comfort and the usual high product quality from Doppelmayr/Garaventa.

2018 is once again an Olympic year. And Doppelmayr was again selected to build a series of ropeway installations for this year's Olympic venue, Pyeongchang in South Korea. Yet another Olympic resort has placed its trust in our products and services. It gives us great pleasure to again be a partner to the Olympics and to have the opportunity to represent Austrian peak performance alongside the Austrian Olympic Committee at Austria House.

The new year again confronts us with numerous challenges. The international market is rich in opportunities across all fields of application. We shall implement all our projects with top professionalism and reliability. More lines for the world's biggest urban ropeway network and large-scale summer tourism projects in Vietnam as well as the many winter lifts in our core markets and the material ropeways that we are already working on at full steam are just a small part of the outlook for 2018.

The continuous improvement of our products and services will be key in the consolidation and further expansion of our market position. While the D-Line has met with an excellent response, we should not rest on our laurels. We remain with our finger on the pulse and will continue to set new benchmarks for our customers and, in particular, by working in collaboration with our customers.

Michael Doppelmayr  
CEO

## Doppelmayr's YouTube channel breaks the three-million mark


The YouTube channel "Doppelmayr Ropeways" recently achieved the magic number of three million views. The channel has existed on one of the world's biggest video platforms since 2011 and shows a wide range of films relating to the many projects and products as well as to the company itself. A lot has happened since the first video was published on June 24, 2011. The most popular videos are project



Doppelmayr/Garaventa Linthal heavy-duty ropeway 217,000



presentations, the top slot going to the film of the Doppelmayr/Garaventa Linthal heavy-duty ropeway with over 200,000 views. Adding up the total amount of playback time shows that the equivalent of 11 years and 92 days has been spent watching the films on the Doppel-

mayr channel – that's almost twice the length of time that the channel has been in existence. 

 Visit our YouTube channel here



## One-half million online readers

**58,000**

views  
WIR 200 Special  
(in English)

**49,600**

views  
WIR 02/2017  
(in German)


**39,500**

views  
Customer Training  
brochure  
(in German)



The digital version of WIR Magazine has been available with an additional option since the start of 2017. The issues of the magazine in all the available languages can be accessed from the Doppelmayr website using the Yumpu tool. The digital version additionally provides access to more picture galleries and videos.

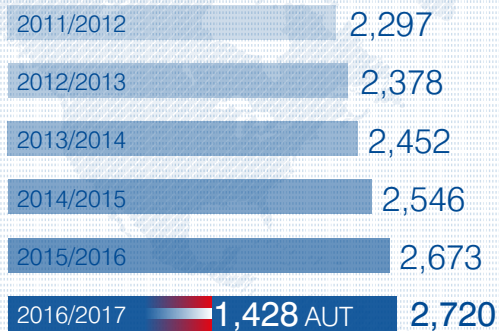
Other Doppelmayr media also benefit from Yumpu. All brochures, such as Customer Training, Apprenticeships at Doppelmayr (German only) and the Annual Brochure can be accessed in all available language versions. This service has proved to be extremely popular, as borne out by the latest figures: Doppelmayr

publications have been viewed more than one-half million times via Yumpu in the first year alone. 

 Visit the Yumpu kiosk here



## Sales revenues of 801 million euros in fiscal 2016/2017



### Headcount worldwide

The Doppelmayr Group closes a business year that saw a host of innovations. In comparison with the previous year, sales revenues for 2016/2017 showed a slight drop of almost 4%, but at 801 million euros nonetheless remained at a high level. Doppelmayr/Garaventa completed a total of 106 installations for 84 customers in the last business year, including many flagship projects, world-record installations and major contracts. The market launch of a new ropeway control system and market penetration with the D-Line also had a positive impact on results. Doppelmayr again increased headcount, with the world market leader for ropeway construction currently employing over 2,700 people worldwide – roughly 50 more than in the previous year.

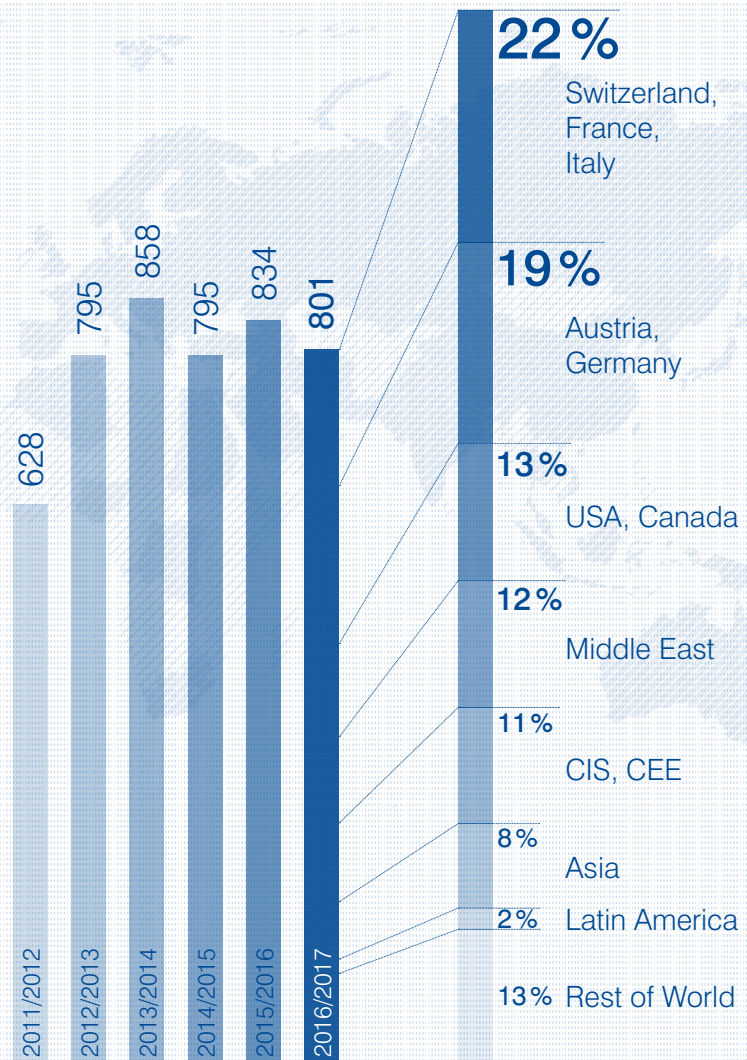
### Innovations, major projects and new market potentials

The market launch of the D-Line was a resounding success. Another seven gondola lifts were completed to the customers' full satisfaction in the last season alone. During the last business year, Doppelmayr also completed the first D-Line chairlift. The Waidoffen 6-seater chairlift was simultaneously the first to be equipped with the latest ropeway control system, Doppelmayr Connect. In the 2016/2017

business year, it was once again clearly shown that the Group continues to build the majority of its ropeway installations for winter tourism. Summer tourism installations serving points of interest (POIs) are particularly popular in the Asian region. In South America, ropeways provide an impressive public means of transport in the urban environment. There is particularly good news from South Korea: The 2018 Winter Olympics in Pyeongchang will see a total of 22 Doppelmayr ropeways operating at the

four alpine venues. Doppelmayr succeeded in winning all four invitations to tender for the new ropeway installations and delivered them all exactly on schedule.

The Doppelmayr Group remains very active in the international arena and can look forward to some sensational projects in the new business year. The company continues in its quest to recruit highly qualified employees and is currently looking to fill some 50 vacancies worldwide. |



Consolidated Revenues in EUR millions

Consolidated Revenues by Region 2016/2017



Doppelmayr wishes every success to the organizers and good luck to the participants at the 2018 Games!

# Peak performance connects

The Olympic Games and Doppelmayr/Garaventa enjoy a long track record of joint success. The world market leader in the ropeway construction industry has been providing peak performance as a partner to the world's biggest sporting event for over 60 years.

The connection between Doppelmayr and the Olympic Games goes back a long way. For over half a century, lift installations from Doppelmayr have been used for a wide range of competitions. This also largely explains why Doppelmayr recently extended its top partnership with the Austrian Olympic Committee (ÖOC) up to 2022. The agreement was signed during the InterAlpin trade show in Innsbruck in April 2017 – in the presence of ski aces Christine Scheyer and Manuel Feller, among others. "As a Vorarlberger, I am proud to see

that a Vorarlberg company has reached this size and significance. I grew up with Doppelmayr lift installations. It was also a Doppelmayr lift that took me to the starting line when I achieved my first World Cup win. It brought me luck. Maybe it will work for me again at the upcoming Olympics," said ski speed specialist Christine Scheyer with a wink of the eye. ÖOC president Karl Stoss is also looking forward to continuing the collaboration: "We're proud of the fact that a world market leader like Doppelmayr is committing to us for the long term."<sup>1</sup>.

## The PyeongChang 2018 Winter Olympic Games

Opening ceremony: February 9, 2018 | Closing ceremony: February 25, 2018

  
**102**  
competitions

  
**15**  
disciplines

  
**83**  
participating  
countries

  
**22**  
Doppelmayr ropeways  
in operation

<sup>1</sup>Source: <http://olympia.at/main.asp?kat1=87&kat2=538&vid=1&NID=18460&DDate=28042017>, status 7/15/2017

Doppelmayr ropeways at the Olympic Games since 1951



2010 Vancouver



2012 London

1960 Squaw Valley



2016 Rio de Janeiro



Ropeways from Doppelmayr/Garaventa can be found at virtually all venues for the Summer and Winter Olympic Games.

**Inseparable success story**

"The Doppelmayr Group's corporate philosophy and the Olympic idea have a lot in common. The desire for peak performance lies at the core. For Doppelmayr, that means in no small measure creating technical innovations that have a lasting, positive impact for humanity," says CEO Michael Doppelmayr. It is this aspiration that drives Doppelmayr/Garaventa to reinvent itself for each Olympic Games. In Sochi, no less than 40 ropeways were built by the world market leader. At the 2018 Winter Olympics at the Korean resort of Pyeongchang, 22 Doppelmayr installations will be in operation. This makes it clear: Doppelmayr/Garaventa is an international name – both within its domestic market in Austria and also in countries where skiing is beginning to de-

*"In Fieberbrunn, the focus has been on Doppelmayr lifts for decades. That's familiar territory for me."*

**Manuel Feller, Slalom Vice World Champion**

velop into a popular sport or where ropeways can prove themselves as a means of transport.

**Succession of top technological achievements**

Some projects marked pioneering technological achievements at the time they were built or continue to do so to this day. At 5,386 meters, the Psekhako 3S lift was the longest tricable installation in existence when it opened for the 2014 Games in Sochi – Doppelmayr has in the meantime beaten its own record with the Fansipan Legend installation in Vietnam. The Psekhako 3S nonetheless remains the fastest lift of its kind with a speed of 8.5 m/s. The Olympic Village installation in Sochi is a 3S lift with two sections and through travel, and ranks among the ropeways with the highest transport capacity, carrying 4,500 passengers an hour in each direction. "Doppelmayr already demonstrated its outstanding expertise in Sochi, and that's why we are again placing our trust in the world market leader for our new rope-

way installations," says Petr A. Kozlov, vice director of Rosa Khutor. Doppelmayr also set a world record with the Peak2Peak lift for the 2010 Winter Olympics in Vancouver. This installation remains top of the list among continuous-movement ropeways for having the longest unsupported rope span, which exceeds a distance of three kilometers. Mr Yang Ho Cho, president of the organizing committee for the 2018 Olympic and Paralympic Winter Games in Pyeongchang, already expressed his personal thanks to Michael Doppelmayr for the Doppelmayr Group's outstanding commitment in the runup to the event: "The new gondola lift is symbolic of our excellent partnership. Doppelmayr's dedication and solutions expertise paved the way for the FIS decision that allowed Jeongseon to host the Ski World Cup in February 2016."

**Doppelmayr ropeways at virtually all the venues**

The Winter Games are not the only events that



2014 Sochi



2018 Pyeongchang



### Doppelmayr is top partner to Austria House PyeongChang 2018

#### Rio 2016

Visitors in public area **68,000**  
 VIP guests **7,000**  
 Media representatives **500**



#### Sochi 2014

18,700 visitors in public area  
 6,300 VIP guests  
 550 media representatives

As in the case of previous Olympic Games, Doppelmayr will be present as top partner at Austria House from February 8 through 25 at the 2018 Winter Olympics in Pyeongchang. For Doppelmayr, this provides a unique opportunity and a platform for joining forces with the Austrian Olympic Committee to draw attention

to Austrian winter sports expertise outside the country. Austria House acts as an important interface between sport, business, tourism, politics and the media, has already been named "Best Hospitality Location" several times over, and is the place to be when it comes to celebrating Olympic medals.

rely on these installations to carry visitors and athletes to their destinations; they have also been used for the Summer Olympics such as Rio 2016 or London 2012. And as far back as 1952, nine ropeways built by Doppelmayr were in action at the Winter Olympics in Oslo. When it comes to building installations for Olympic events, Doppelmayr places a strong emphasis on the needs of the regions and the athletes – to ensure lasting economic and touristic added value following the major international event. Great engagement on the part of the regions and good infrastructure – in no small measure thanks to Doppelmayr/Garaventa installations – have enabled the Olympic venues to develop very well beyond the Olympic Games. "Doppelmayr has a long track record with the Olympic brand. Our ropeways are present at virtually all Olympic venues. They have provided safe and fast transport for many Olympic athletes – whether in Vancouver, London or Sochi. Doppelmayr and the Austrian Olympic Committee are linked not only by their

shared history but also by the desire to support young people who have chosen to dedicate themselves to sport. Our partnership is a

clear demonstration of that commitment," says managing director Thomas Pichler. | [1](#)



In 2017, Doppelmayr extended its top partnership with the Austrian Olympic Committee. The agreement was signed at the Interalp trade show in Innsbruck – in the presence of ski aces Christine Scheyer and Manuel Feller, among others.

# Patscherkofel lift creates mountain experience for everyone

WIR spoke with Innsbruck's mayor, Christine Oppitz-Plörer.



**WIR.** Building a ropeway installation is a complex project involving many factors and players. What was your experience of working with the individual partner companies, what role did Doppelmayr play in terms of project management and how would you describe the way the project was handled in general?

**Christine Oppitz-Plörer:** The timetable for the new Patscherkofel lift was ambitious from the start and therefore challenging. For a time, the numerous objections plus the early onset of winter also posed a real headache for project management – but despite all this, the new lift was able to go into service in winter 2017. I would like to express my great admiration for everyone involved in the work on the mountain. My experience of the collaboration with the individual partner companies – in particular with Doppelmayr – was extremely positive.

**WIR.** A new ropeway always sends a positive signal within the region and for tourism. What impetus do you expect to see for Innsbruck and for the winter sports and hiking area on the Patscherkofel?

**Christine Oppitz-Plörer:** One of the major advantages of the new lift is the fact that it's disabled-friendly and therefore the first aerial ropeway in Innsbruck's history that enables people of all generations to enjoy an unforgettable mountain experience, irrespective of whether they use skis, toboggans, wheelchairs or baby strollers. The Patscherkofel is not just impressive as a skiing area in the winter; it has plenty to offer all year round with the Zirbenweg and Almenweg 1600 trails. The comprehensive package of measures aimed at boosting the attractiveness of our local mountain will round out the leisure facilities Innsbruck has to offer both for local residents and for our guests.

**WIR.** The Patscherkofel D-Line lift belongs to the latest generation of ropeways from Doppelmayr, which evolved from the biggest development project in the company's history. What were the key deciding factors for Innsbruck's city government when it came to selecting Doppelmayr – what determined the contract award?

**Christine Oppitz-Plörer:** The decision in favor of Doppelmayr was the result of a public procurement procedure that follows strict

rules. Ten points were defined that had to be considered. At the end of the day, it was the overall package and, of course, the price that were the deciding factors.

**WIR.** The new gondola lift is an attractive means of transport for everyone in summer and winter, including people with impaired mobility. What possibilities does this open up on Innsbruck's local mountain?

**Christine Oppitz-Plörer:** The Patscherkofel lift is a public means of transport, and that meant there had to be a comprehensive decision-making process at municipal government level before the project could be given the go-ahead. As I already mentioned, disabled-friendliness is a great asset and ensures that the Patscherkofel is the local mountain for ALL Innsbruckers. In our alpine city, having impaired mobility now no longer automatically excludes you from a trip up the mountain. This is precisely what sets the alpine-urban capital of Tyrol apart.

**WIR.** Thank you for taking the time out to talk to us! | 1



**? Did you know that...**  
 ... the Patscherkofel was the showplace for what remains to this day a unique world record?

In 1998, the first nine places in the men's Super-G World Cup were claimed by a single nation, namely Austria.

# Welcome to first class on the Patscherkofel

The new Patscherkofel lift brings state-of-the-art ropeway technology to Innsbruck's local mountain.

Fans of the Winter Olympic Games will be familiar with the Patscherkofel. For anyone living in Innsbruck, in the Austrian province Tyrol, it is their nearest mountain and already served as Olympic venue on two occasions as far back as 1964 and 1976. The Winter Youth Olympic Games also took place there in 2012. The mountain's ropeway history goes back even further than its record as an Olympic venue. As long ago as 1910, plans were afoot to build an aerial ropeway up to the mountain, and 1928 finally saw the maiden trip of its aerial tramway. Now – almost 90 years later – the old tram can finally go into retirement. A new ropeway installation replaces this tram, along with the Olympia Express chairlift, the Panorama lift and the Ochsenalm surface lift.

## The next ropeway generation

The Patscherkofel lift is a product of the next ropeway generation from Doppelmayr: the D-Line. This puts the Patscherkofel at the cutting edge of technology. No matter whether they are wearing hiking boots or skis, or using a wheelchair or baby stroller, local residents and tourists alike can all enjoy comfortable access to the mountain peak thanks to the new Patscherkofel lift and its barrier-free design. In the winter, the two-section lift will carry passengers directly to a wide range of ski trails and, in the summer, to the hiking paths. This estab-

lishes Patscherkofel Mountain all the more as a year-round recreation area for the Tyrolean capital. It is also well-known for its particular wind conditions as high winds are quite common on the Patscherkofel. The new lift was designed with some special features to address this fact. The low ropeline with continuous rope position detection (RPD), additional ballast weights in the cabin floors to lower the center of gravity, and the capability to operate each of the two sections individually ensure safe operations and high availability.

## Looking to the future

The groundbreaking ceremony for the new Patscherkofel lift took place in April 2017. Despite the wind and weather on the construction site, the lift was completed on schedule in December 2017. Shortly before, on October 22, the old aerial tram had made its very last regular trip. A series of nostalgic rides were organized to mark its closure before the region began to set its sights on the future. Martin Baltes, managing director of Patscherkofelbahn Infrastruktur GmbH, summed it up as follows: "The old tram had its charm, but our new D-Line combines added value, comfort, technology and aesthetic design." | 



## 10-MGD Patscherkofel Lift

Owner	<b>Patscherkofelbahn Infrastruktur GmbH</b>
Location	<b>Innsbruck-Igls, Tyrol (AUT)</b>
Opened	<b>Winter 2017/18</b>
Capacity	<b>Winter: 2,450 PPH Summer: 1,550 PPH</b>

**Initial phase, winter: 2,000 PPH with total of 66 cabins**

### Section 1

Inclined length	<b>1,766 m</b>
Speed	<b>6.0 m/s</b>
Carriers	<b>Winter: 51 cabins Summer: 32 cabins for 10 passengers each</b>

### Section 2

Inclined length	<b>759 m</b>
Speed	<b>6.0 m/s</b>
Carriers	<b>Winter: 28 cabins Summer: 18 cabins for 10 passengers each</b>



# Germany's new superlatives

WIR spoke with Martin Hurm, project manager for the Zugspitze reversible aerial tramway.



**WIR.** The new Zugspitze tramway replaces the Eibsee tramway completed in 1963, which was uniquely innovative in its time. The new tramway, with its list of superlatives, is also destined to write ropeway history – it sets three world records. What is the significance of the modern aerial tramway for the tourist region?

**Martin Hurm:** The Zugspitze has an extremely high appeal factor. Alpinists, winter sports enthusiasts, day trippers and tourists from around the globe appreciate the infrastructural facilities offered by the Bayerische Zugspitzbahn. We're delighted to be able to ring in a new era in terms of comfort and

mountain experience with the start-up of the new Zugspitze tramway.

**WIR.** Aesthetic design and technology clearly harmonize in the case of the new Zugspitze tramway and the location is quite spectacular. What were the challenges that had to be addressed during the construction work and the implementation of this major project?

**Martin Hurm:** Some of the greatest challenges during the construction phase were first and foremost the extreme weather conditions, the elevation, the exposure on the mountain and the logistics issue. But, at the same time, the refurbishment work on existing structures and carrying out the construction during ongoing passenger operations was a very demanding task for everyone involved.

**WIR.** You were very convinced about the project from the outset. Now that the tram is in operation, how would you sum up your thoughts with regard to Doppelmayr/Garaventa? Were your expectations met in terms of the performance delivered in the areas of planning, technical achievement and project management?

**Martin Hurm:** Everything was done with clockwork precision! You really can say that all

our expectations were met in full. We particularly liked the fact that Doppelmayr/Garaventa always responded to our individual requirements and wishes. The new Zugspitze tramway operates almost 365 days a year. To ensure minimum downtime, you have to be able to replace components, and consequently you need high availability for individual components. For that reason, we opted for a third carriage. This means we can replace the entire assembly and that gives you time to submit the removed carriage to thorough inspection.

**WIR.** Alongside all-year operation and reduced waiting times – thanks to higher transport capacity – your guests can also look forward to some significant improvements in comfort. What do these entail?

**Martin Hurm:** The cabins on the new Zugspitze tram have floor-to-roof glazing. The roofs have panorama windows. Needless to say, that allows spectacular panoramic views during the 10-minute trip. The integrated heating stops the windows from fogging up, so passengers get to enjoy an undisturbed view, even in the case of snow and ice or large variations in temperature.

**WIR.** Many thanks for your time! 🙏

# Three world records for the aerial tram to the Zugspitze

The greatest vertical rise, the tallest lattice tower and the longest unsupported rope span on the reversible aerial tramway up to the Zugspitze.



? Did you know that...

... the two cabins on the old Eibsee tramway traveled the equivalent of roughly 76 times around the world – if you add up all the trips made throughout the entire operating period since 1963?

Expressed in vertical meters, they could even have made more than three trips to the moon.

... the original ropes on the Eibsee tramway were in service from 1963 to 2017

The Zugspitze is Germany's highest mountain. Since this winter season, it also boasts a reversible aerial tramway of superlatives. This ropeway has the greatest overall vertical rise of 1,945 m in one section, the world's tallest lattice tower at 127 m and the longest unsupported rope span of 3,213 m. Every year, the Zugspitze attracts around one-half million visitors. With the new tram, they will now be able to reach the mountain quickly, even at peak periods. The new cabins have a capacity of 120 passengers – compared to just 44 on the old Eibsee tram.

## Unhindered view of mountain and lake

The Zugspitze tram also brings entirely new perspectives. The platforms are fully glazed. In the entrance zone to the wheelchair-accessible lower terminal, visitors already get to enjoy a unique panorama of mountain and lake. Once they reach the terrace of the new upper terminal, a direct view of the summit opens up before them. Both tramway cabins have floor-to-roof glazing and during the trip provide unrestricted vistas of the Eibsee lake, the border between Germany and Austria, and the Alpspitze. As the windows are heated, they do not fog up in cold weather.

## Year-round experience

The Zugspitze tram operates all year round. There is plenty to discover in summer and win-

ter: Two ski areas offering 60 kilometers of ski trails lie around Germany's highest mountain as well as hiking paths with different levels of difficulty. For anyone wanting to experience the mountain from the other side, the glacier tram and the Tyrolean Zugspitze tram can be reached from the three levels of the upper terminal of the Zugspitze tramway. Those who prefer to travel closer to the ground can also take the rack-and-pinion railway to the glacier.

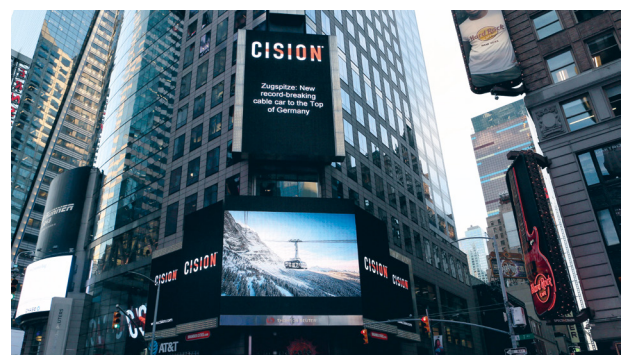
## Eibsee tram goes into retirement

The opening of the Zugspitze tramway also marks the end of an era. A total of 21.3 million visitors traveled up the mountain from Bavaria's Eibsee lake on the old Eibsee tram. In its time, it was without equal. Now, after 54 years of service, it is taking its well-earned retirement. | [1](#)

➔ Watch the video of the spectacular Zugspitze tramway here



The Zugspitze tram is even attracting attention in New York's Times Square.



## 120-ATW Zugspitze Reversible Aerial Tramway

Owner	<b>Bayerische Zugspitzbahn Bergbahn AG</b>
Location	<b>Grainau, Bavaria (GER)</b>
Vertical rise	<b>1,945 m</b> 🏆 WR
Towers	<b>1 (127 m high)</b> 🏆 WR
Rope span	<b>3,213 m</b> 🏆 WR
Inclined length	<b>4,467 m</b>
Speed	<b>10.6 m/s</b>
Capacity	<b>580 PPH</b>
Carriers	<b>2 cabins, each for 120 passengers + 1 attendant</b>
Opened	<b>December 21, 2017</b>



## Poland's oldest gondola lift in new splendor following upgrade

A complete overhaul of the gondola lift up to the Szyndzielnia – a hotspot for mountain bikers and hikers – has made it accessible to all.

Poland's first gondola lift opened in Bielsko-Biała in 1953. The installation, which was originally equipped with four-passenger cabins, offers what is probably the most picturesque means of gliding above the slopes of Mount Szyndzielnia in the Silesian Beskids. Today, more than 60 years later, the now disabled-friendly Szyndzielnia gondola lift shines in a new splendor.


Doppelmayr Poland was awarded the contract for the complex ropeway modernization. This included, among other things, replacement of the ropes, drive, gear unit and control system as well as the rebuild of the platforms. What remained of the gondola lift that was last refurbished in 1995 were all 14 steel towers, which are still in excellent condition, and the facades of the historic top and bottom station buildings. However, the station interiors were completely modernized and adapted to the new ropeway installation.

"This ropeway project is something quite special. The new elements work extremely well with the historic station buildings," says Bogdan Tarako, managing director of Doppelmayr Poland.

### Mountain bikers welcome

The Szyndzielnia area has a dense network of cycle trails and, in the summer, most tourists come for hiking or mountain biking. For this reason, the new, modern cabins have also been fitted with special carriers for bicycles. The cabins now offer space for six passengers, are fully glazed, comfortable, and also accessible for wheelchairs and baby strollers.



The fact that the focus is on summer tourism posed a challenge for the construction crew. Most of the work on the mountain was carried out in the winter to avoid interruptions during the peak tourist season. This was nonetheless a challenge that Doppelmayr was pleased to take on board for this important reference project. Doppelmayr Poland is based directly in Bielsko-Biała, not far from the gondola lift – another reason why the company took a special interest in the upgrade. | 



### 6-MGD Szyndzielnia

Owner	<b>ZIAD Bielsko-Biała S.A.</b>
Location	<b>Bielsko-Biała, Silesian Voivodeship (POL)</b>
Inclined length	<b>1,811 m</b>
Vertical rise	<b>449 m</b>
Capacity	<b>750 PPH</b>
Speed	<b>5.0 m/s</b>
Trip time	<b>6.0 min</b>
Carriers	<b>32 6-passenger cabins</b>

"Thanks to the exceptional modernization concept, the Szyndzielnia gondola lift has been upgraded to an advanced, comfortable and particularly safe installation, and was delivered by Doppelmayr Polska on a turnkey basis."



**Janusz Kisiel,**  
CEO of ZIAD  
Bielsko-Biała SA




## 8-seater chairlift – milestone for ski resort modernization

Ultramodern ropeways like the new Sudelfeldkopf lift are important economic factors for the Federal State of Bavaria.

Sudelfeld, with its 31 kilometers of expansive ski trails offering all levels of difficulty, ranks among the biggest ski areas in Bavaria. In order to also be one of the most modern, the ski area near Bayrischzell has been investing extensively in the creation of an up-to-the-minute winter sports experience. Following the construction of the new 6-seater Waldkopf chairlift in 2014, another chairlift was built in collaboration with Doppelmayr and opened at the end of 2017. With a speed of 6.0 meters per second, the new Sudelfeldkopf lift is one of the fastest detachable chairlifts in Germany. It replaces three surface lifts and in future will provide a fast and safe means of reaching the upper section of Sudelfeld not only for winter sports enthusiasts but also for hikers.

### Blue-sky thinking

The 8-seater chairlift creates a stunning visual impression with its striking blue bubbles against the Sudelfeld backdrop. These stylish bubbles provide passengers with optimal protection against wind and weather. Seat heating is an additional feature ensuring enhanced comfort during the ride. Lockable restraining bars also provide greater safety. A height-adjustable loading conveyor in the bottom station makes for easy loading, particularly for children using the lift.

The successful collaboration on the Waldkopf lift and the support provided by Doppelmayr throughout the years during the planning process were the deciding factors when it came to awarding the contract for the new chairlift. The high level of commitment shown by everyone involved on both sides helped to create a very positive working atmosphere on the construction site. | 



### 8-CLD-B Sudelfeldkopf Lift

Owner	<b>Bergbahnen-Sudelfeld GmbH &amp; Co. KG</b>
Location	<b>Sudelfeld, Bavaria (GER)</b>
Inclined length	<b>1,299 m</b>
Vertical rise	<b>344 m</b>
Speed	<b>6.0 m/s</b>
Capacity	<b>3,500 PPH</b>
Carriers	<b>60 8-seater chairs</b>

"Modern, comfortable lift installations play a key role in Bavaria's tourism sector – they are a vital economic factor in the region."  
Ilse Aigner, Minister for Economic Affairs, Bavaria



## It's all new in Kleinwalsertal

Ifen I and Ifen II bring first class to Kleinwalsertal and the Allgäu Alps.

Since this winter, there have been two new ropeways in Hirschegg, in Austria's Kleinwalsertal and in Allgäu. The installations Ifen I and Ifen II belonging to Doppelmayr's new D-Line generation of ropeways were built in the period from April through December and replace the previous Ifen and Hahnenkopfle lifts. Greater comfort is provided, for example, by the spacious cabins offering five centimeters more seat width. The control system for the lift installations is also new: "Doppelmayr Connect is very user-friendly and has a lot of new functions. Having the control system on a tablet makes us extremely flexible and also makes operating and maintenance work easier for our ropeway crew," explains the operating company's joint managing director, Augustin Kroll. One of the noteworthy features is the fast-moving switch rails installed in the mid station. These enable the first and second sections to be operated with different transport capacities in a ratio of 1:2. "There are two lift

installations that are designed so that passengers can travel through from the bottom station to the top station at 2,030 meters without having to change. We decided in favor of Vorarlberg technology and that means we can offer our guests top comfort – in other words: first class," says Dr Andreas Gapp, joint managing director of the operating company.

### Proven partnership

In recent years, the Doppelmayr/Garaventa Group has built several ropeways for the op-

"We decided in favor of Vorarlberg technology and that means we can offer our guests top comfort – in other words: first class."

**Dr. Andreas Gapp,**  
Joint Managing Director,  
Skiliftgesellschaft  
links der Breitach  
GmbH & Co.KG



erating company, Skiliftgesellschaft links der Breitach. The start-up of the Olympia lift in 2016 marked the completion of the first phase of the ski area upgrade on the Ifen. Completion of the Ifen I and II lifts and a newly built restaurant now concludes the second construction phase. Ifen I operates in both winter and summer, while Ifen II is only open in the winter. 📌



### 10-MGD Ifen I+II

Owner	<b>Skiliftgesellschaft links der Breitach GmbH &amp; Co.KG</b>
Location	<b>Hirschegg, Kleinwalsertal (AUT)</b>
Inclined length	<b>Ifen I: 966 m Ifen II: 1,882 m</b>
Vertical rise	<b>Ifen I: 298 m Ifen II: 477 m</b>
Speed	<b>6.0 m/s</b>
Capacity	<b>Ifen I: 2,000 PPH Ifen II: 3,600 PPH</b>
Carriers	<b>Ifen I: 25 cabins Ifen II: 82 cabins</b>
Opened	<b>December 23, 2017</b>





## Furka Zipper is the first D-Line in Switzerland

With the new, modern lift, the trip between Davos and Klosters now takes just five minutes – a highly convenient connection.

At the start of the 2017/18 winter season, Switzerland's first D-Line ropeway opened in Davos: the Furka Zipper. The detachable 6-seater chairlift brings guests from Gruobenalp to Parsennfurka in just five minutes, connecting the ski areas Parsenn Davos and Gotschna Klosters like a zipper. The new chairlift replaces two older T-bar surface lifts. It is equipped

with heated seats as well as bubbles and provides comfortable and easy transport for up to 2,500 passengers an hour. The latest D-Line ropeway technology from the Doppelmayr/Garaventa Group offers more room and also top ride comfort. At the same time, the D-Line ensures quieter operation and simpler maintenance. The alignment of the Furka Zipper was a particular challenge as the required station locations meant taking the new lift above and below two existing lifts.

The ski trail has been extended by some 600 meters as a result of the new chairlift and its new route is also safer for skiers and snowboarders as it does away with dangerous ski trail crossings. The connecting routes have been significantly improved. The new loading area is at Gruobenalp and lies 350 meters further downhill than the previous station. This shift avoids several narrow sections and crossing points, which in the past had posed a significant risk of accident. In addition, the new location of the bottom station means that skiers and snowboarders no longer have to contend with some tedious connecting routes. Apart from the new D-Line lift, the Davos Klosters operating company is also investing in snowmaking equipment that will guarantee optimal trail conditions. 🇨🇭



### 6-CLD-B Furka Zipper

Owner	<b>Davos Klosters Bergbahnen AG</b>
Location	<b>Davos, Graubünden (CHE)</b>
Inclined length	<b>1,587 m</b>
Vertical rise	<b>380 m</b>
Capacity	<b>2,500 PPH</b>
Speed	<b>6.0 m/s</b>
Trip time	<b>5.0 min</b>

"The Furka Zipper brings a huge improvement in comfort for our guests and, as the first D-Line in Switzerland, the new chairlift acts as a tremendous attraction factor – even beyond our borders."



**Markus Good, Technical Operations Director, Davos Klosters Bergbahnen AG**

## Number one in Hungary




**Sípark Mátraszentistván attracts visitors with a new Panorama lift.**

Hungary's Sípark Mátraszentistván is a veritable showcase ski resort. In the early 2000s, it was taken over by Imre Körösi, whose vision extended far beyond what was then a modest ski lift infrastructure. The resort has been run as a family business ever since. From the outset, the ski park has been successively and resolutely developed into a small but extremely quality-oriented ski resort with its very own character, a place where day trippers find everything their hearts could wish for. Imre Körösi first got the idea of building the Panorama lift back in 2005. Since his passing in 2010, the family – Imre's wife Erika along with their children, Peter, Gergő und Erika – has jointly

carried on the business, driven by innovation and inspiration, and very much in keeping with Imre's vision. To this day, the family continues to see innovation as a key driver. That's why they consistently worked toward turning Imre's idea into reality, culminating in the construction of the fixed-grip quad chairlift in collaboration with Doppelmayr. This installation is the most modern in Hungary and, at the same time, has the highest capacity among lifts of its kind in the country. For guests visiting Sípark Mátraszentistván, the Panorama lift brings top comfort plus top safety standards. And every trip provides a great opportunity to enjoy magnificent views of the Mátra Mountains.

### Shared history

Sípark Mátraszentistván shares a long history

with Doppelmayr. The ropeway manufacturer has been present in Hungary since 2004 and, back then, one of its first projects in the country was the surface lift 1a in Sípark Mátraszentistván. This was followed a year later by the surface lift 2-SL Hutapatak. With the new Panorama lift, the resort can now boast yet another attraction from Doppelmayr. | 



### 4-CLF Panorama Lift

Owner	<b>Sípark Mátraszentistván</b>
Location	<b>Mátraszentimre (HUN)</b>
Inclined length	<b>498 m</b>
Vertical rise	<b>148 m</b>
Capacity	<b>2,160 PPH</b>
Carriers	<b>59 quad chairs</b>
Opened	<b>Winter 2017/18</b>

"Our Panorama lift is a visitor magnet and takes Sípark Mátraszentistván to a whole new level." | **Peter Körösi, Managing Director, Sípark Mátraszentistván**


## First class in Finkenberg



**Built in 2017, the D-Line lift Finkenberg I offers top comfort – including Wi-Fi and seat heating – for up to 2,400 passengers an hour.**

In Zillertal, the first section of the new 10-passenger gondola lift belonging to Finkengerger Almbahnen went into service in time for the

start of the 2017/18 winter season. Finkenberg I replaces an older 4-passenger gondola lift. The D-Line cabins with seat heating and Wi-Fi provide great comfort and entertainment during the trip. They can carry twice as many passengers as their predecessors, giving stress-free access to the Penkenjoch for up to 2,400 skiers and snowboarders an hour. Waiting times at the bottom station have now become a thing of the past. Transporting skis and snowboards inside the cabins also helps to optimize passenger flows.

In addition to the ropeway itself, the bottom and top stations have been redesigned. The old buildings were demolished and rebuilt for barrier-free access. The modern bottom station building in Finkenberg is connected to the existing parking garage. The lift drive equipment and cabin parking facility are located in the top station. | 



### 10-MGD Finkenberg I

Owner	<b>Finkengerger Almbahnen GmbH</b>
Location	<b>Finkenberg, Tyrol (AUT)</b>
Inclined length	<b>1,780 m</b>
Vertical rise	<b>900 m</b>
Capacity	<b>2,400 PPH</b>
Carriers	<b>56 10-passenger cabins</b>
Speed	<b>6.0 m/s</b>
Trip time	<b>7 min</b>
Opened	<b>December 2017</b>

"The visionary D-Line ropeway technology provides not only top passenger comfort, but also quiet operation and straightforward maintenance." | **Felix Gaugg, Managing Director, Finkengerger Almbahnen GmbH**

## The mythical Verwall



The first step toward reorientation of Austria's Verwall valley in St. Anton am Arlberg was the restructuring of the area around the Verwall lake in summer 2017. A new play area offers a wide range of equipment where children can let off steam. In the meantime, the adults can wind down by relaxing in the wooden arbors and taking in the natural surroundings. The magic of the lake can be experienced by young and old alike as they walk along the wooden jetties over the water. There is plenty to discover for both guests and local visitors. Those who want to experience the power of the alpine water can cross the new hanging bridge and look down at the torrent of water cascading down the side of the dam.



A lot of exciting features designed to make the route to the Verwall valley attractive for families are already in the pipeline for next year. Input Projektentwicklungs GmbH is responsible for the design concept, which is based on regional legends and places a special emphasis on authenticity. The second phase of the project with another four legend-themed stations is due to start in the spring. "The legends all come from the region – from St. Anton to Stengen – and will be specially staged with families and children in mind, enabling the world of legends to become part of a playful experience. We can already reveal the stories associated with the four themed stations: Arlen castle, the Stiegenegg witch, the husband's spirit and the Schnann wizard," says a delighted Martin Ebster, director of the St. Anton am Arlberg tourist association. | 📌



## Staying true to their roots

🗣️ **WIR.** New themed offers bring fresh momentum for tourism in the region. What made you decide on this particular visitor attraction in the Verwall valley?

🗣️ **Martin Ebster:** From our viewpoint, it seemed self-evident to incorporate the theme of legends into our offer. The Verwall valley is particularly well suited to this idea. The left side of the valley is very sports-oriented with offers for mountain bikers, climbers and plenty more besides. As you go further into the valley, so the world of myths and legends opens up. There is also a free bus service for our guests – that means every visitor can choose whether to come on foot or take a bus ride.

🗣️ **WIR.** How important was it for you to create an individual and authentic offer that's in harmony with nature?

🗣️ **Martin Ebster:** We're convinced that, as a destination, we have to be modern and stay in touch with the latest trends if we are to remain competitive. At the same time, it's very important that we don't forget our traditions. That's why our offer has to be true to ourselves and to our roots. We've placed a strong focus on regionality, on resources that are authentic for the Verwall valley and actually exist here. The wide use of wood communicates our tra-

dition and the attachment to our natural surroundings – that's very important to us.

🗣️ **WIR.** Input developed and researched the concept with the legends, and in some cases reinterpreted them slightly. What impressed you in particular about the work with and by Input?

🗣️ **Martin Ebster:** What we particularly like about the collaboration with Input is their flexible approach to putting our ideas and wishes into practice. They also contribute great ideas and creativity to the projects. That has enabled us to set the Verwall valley apart from our competitors as a tourist destination with a special range of attractions for our guests.

🗣️ **WIR.** How important is it for your region to stand out from the crowd in relation to competitors with this summer offer and what are your expectations in terms of how these experiential attractions will be received?

🗣️ **Martin Ebster:** Everybody tries to make their region stand out. The potential is huge. We have an inexhaustible supply of legends that can be used for future projects. Our customers should be provided with a varied and exciting offer – and we can meet that expectation.

🗣️ **WIR.** Many thanks for talking with us. | 📌



## Uplifting experience in the winter forest

The comfortable D-Line chairlift in Kleinarl, known as the Lumberjack Shuttle, was completed after a short construction period lasting a matter of months.

The Shuttleberg ski area in the Austrian province of Salzburg has expanded. Following a significant increase in the available ski trails in 2016, a new D-Line chairlift – the Lumberjack Shuttle – opened in December 2017.

### Family fun plus safety

The slopes on the Shuttleberg in the Flachauwinkl-Kleinarl region are ideally suited to sporty families. The new chairlift fits in perfectly as it leads straight to the family run – an easy stretch that is just right for children and beginners. For the operating company, Shuttleberg GmbH & Co KG, safe and comfortable transportation for families and groups of ski school children was the main priority. Doppelmayr was only too pleased to oblige. Boarding is by means of loading conveyor and lifting platform and the self-locking restraining bar system ensures even greater safety for all guests. And



what's more: The new lift enables more people to get to their destination in less time than before – waiting in line has become a thing of the past with the Lumberjack Shuttle.

### Wild but comfortable

Professionals also find what they are looking for and the Shuttleberg is just as popular among freestyle snowboarders and free skiers. The top station of the Lumberjack Shuttle takes them across the “powder trail” to the Absolut Park – Europe’s longest snow park – or to the cross run on Schuttalm. However wild it might look on the slopes, there is plenty of comfort to be had on the Lumberjack Shuttle. In terms of chair technology and noise reduction, the D-Line is cutting edge. It is equipped with the quiet Doppelmayr Sector Drive, which is also suitable for very steep installations.

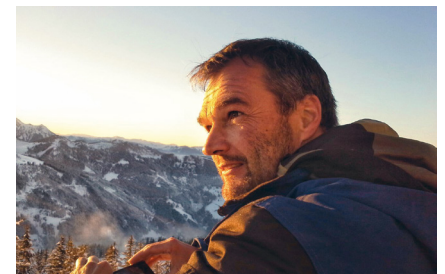
### Fast-track construction

The time schedule for construction of the lift was extremely tight. The building permit hearing did not take place until the beginning of July 2017 and major terrain modifications were necessary at the bottom station. Despite all this, the installation was completed on time and has been in service since December 2017. Today, the Lumberjack Shuttle is a showcase ropeway in the region. In terms of speed, length and comfort, this lift outshines all others on the Shuttleberg and replaces the Fürstwand and Schuttalm surface lifts. Doppelmayr has already implemented several projects with Shuttleberg GmbH & Co KG, including the Absolut Shuttle, the Family Shuttle and the Sunshine Shuttle. | 



### 6-CLD-B Lumberjack Shuttle

Owner	<b>Shuttleberg GmbH &amp; Co. KG</b>
Location	<b>Kleinarl, Salzburg (AUT)</b>
Inclined length	<b>2,021 m</b>
Vertical rise	<b>625 m</b>
Speed	<b>6.0 m/s</b>
Capacity	<b>2,600 PPH</b>
Opened	<b>December 2017</b>



“Thanks to our excellent and long-proven working relationship with Doppelmayr and the optimally organized and coordinated work of the installation crew, we were able to complete our fantastic Lumberjack Shuttle project on time. A huge thank you is due to Doppelmayr and all the other firms and helpers involved!”

**Ferdinand Hutegger, Operations Director, Shuttleberg GmbH & Co. KG**



## Ropeway as mobility center

The new reversible aerial tramway from Burgstall to Vöran (Verano) impresses commuters as well as vacationers and athletes.

The new Burgstall–Vöran tram in South Tyrol is a means of transport for day trippers and local residents alike. Vacationers are particularly delighted with the tram as the cabins feature generous glazing and therefore provide stunning views of the Etschtal (Adige Valley) and the surrounding mountains. The twin track rope system makes the tramway particularly wind-stable – and ensures a smooth ride. Commuters also enjoy using this means of transport. The big advantage for them is that the modern tram connects up with the public transport system. The lower terminal simultaneously serves as the new mobility center for the villages of Burgstall and Vöran – and lies directly on the Bolzano-Merano bus route. Passengers buy their tickets in the upper terminal; the lower terminal is automated.

### Plenty of room for bicycles

A special emphasis has been placed on bike transport. This is now entirely straightforward. The bikes are fixed to dedicated stands inside the spacious cabins. For mountain bikers and mountain runners, showers and changing rooms are also available free of charge in the upper terminal. A bistro with large terrace is also planned.

The task of building the new tramway was entrusted to Doppelmayr Italia by the Municipality of Vöran in 2016 following a Europe-wide bidding process. The official opening ceremony took place in October 2017.

The old tram with its 12-passenger cabins had become too small and was no longer able to cope with the increasing demand. As well as providing 60 years of service, it remained in operation throughout the short construction period for the new tram to provide continuing transportation for commuters and guests. The new tramway was built alongside the old route and demolition work on the old tram will be completed during the course of this year. This will include the five old towers, which have been replaced by a single 40-meter tower. 🚲



### 35-ATW Burgstall–Vöran

Owner	<b>Municipality of Vöran</b>
Location	<b>Vöran, Trentino-South Tyrol (ITA)</b>
Inclined length	<b>2,120 m</b>
Vertical rise	<b>912 m</b>
Speed	<b>10.0 m/s</b>
Trip time	<b>approx. 5 min</b>
Capacity	<b>360 PPH</b>
Carriers	<b>Two 35-passenger cabins</b>
Opened	<b>October 7, 2017</b>

“Our aerial tramway is not just attractive and comfortable, it improves mobility and reduces traffic.”

**Thomas Egger, Mayor of Vöran**





## Riding in comfort and skiing private slopes

The members of the private ski resort near Bozeman, Montana, use Doppelmayr lifts to ride in style to ski slopes in the Rocky Mountains.

What do these premier members have in common? They all enjoy skiing in the Rocky Mountains at the exclusive ski and golf community known as the Yellowstone Club in Big Sky, Montana. The Club is currently implementing an extensive expansion program aimed at offering ample space for all members and their guests. Beginners in particular will benefit from the new downhill runs as they can look forward to riding direct to the appropriate slopes in comfort and safety. This completely new area and additional ski trails will be reached using three ropeways: Doppelmayr USA is building an entirely new gondola lift with two sections as well as a detachable quad bubble chairlift. A fixed-grip triple chairlift was relocated from an existing beginner and intermediate area to this new ski terrain to provide these skiers with an exclusive experience.


### The Montana lifestyle

Expert skiers and beginners alike will be able to access all the ski trails direct from the base station of the ultramodern lifts in the Club. The Village Core forms the heart of the Yellowstone Club and, as a new, modern development with a rustic ambience, embodies the famed Montana lifestyle. The amenities include charming businesses and cozy eateries alongside the usual skier services. A state-of-the-art spa and

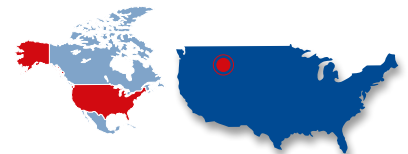
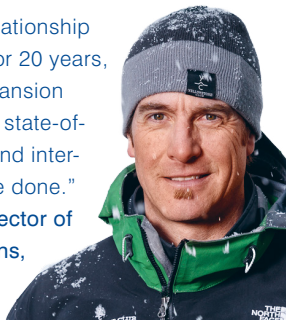
fitness area is yet another feature provided to enhance the leisure experience.

### Views across the Rocky Mountains

The comfortable 8-passenger cabins on the Eglise gondola offer barrier-free boarding. Inside, the bench seats fold up to create more space. This means that one wheelchair user or a baby stroller can easily be transported in comfort along with another four passengers. The panorama windows ensure that guests can enjoy stunning views of the Rocky Mountains during the trip. The gondola is to be built in two construction phases. The upper section was opened in the 2017/2018 winter season, with completion of the lower section to follow a year later.

The Yellowstone Club has already worked with Doppelmayr on successful ropeway projects in the past. 16 of the Club's lift installations were supplied by the global market leader. Once again, the customer is delighted with the results. 

*"We have had a relationship with Doppelmayr for 20 years, and the Eglise Expansion project is the most state-of-the-art, complex, and interesting one we have done."*  
**Luke Stratford, Director of Mountain Operations, Yellowstone Club**



**Yellowstone Club**  
 Expansion 2017/18

Owner	<b>Yellowstone Club</b>
Location	<b>Big Sky, Montana (USA)</b>
Opening	<b>Winter 2017/18</b>

### 8-MGD Eglise Gondola

Inclined length	<b>437 m (lower section), 1,877 m (upper section)</b>
Vertical rise	<b>19 m (lower section), 372 m (upper section)</b>
Speed	<b>5.0 m/s</b>
Capacity	<b>1,000 PPH (initial phase)</b>
Carriers	<b>30 8-passenger cabins</b>

### 4-CLD-B Great Bear

Inclined length	<b>1,417 m</b>
Vertical rise	<b>242 m</b>
Speed	<b>5.0 m/s</b>
Capacity	<b>1,500 PPH</b>
Carriers	<b>42 quad chairs with bubbles</b>

### 3-CLF Little Dipper

Inclined length	<b>774 m</b>
Vertical rise	<b>143 m</b>
Speed	<b>2.3 m/s</b>
Capacity	<b>1,785 PPH</b>



## Luxembourg's first urban ropeway

With the new funicular railway, up to 7,200 passengers an hour can travel direct from the new Pfaffenthal rail station to the Kirchberg plateau.

Since December 2017, the Arrêt Pfaffenthal–Kirchberg funicular in Luxembourg has been helping to ensure smooth commuter flows. As part of an existing transport line, it links the local network of the Société Nationale des Chemins de Fer Luxembourgeois (CFL) with the Kirchberg plateau roughly 40 meters higher up, where a lot of people work. Two parallel systems carry up to 7,200 passengers an hour at maximum capacity. This capacity is sufficient to bring the passengers from two simultaneously arriving suburban trains to Kirchberg within just ten minutes. Garaventa designed the funicular in line with the customer's individual specifications: Cabin exterior and fittings were chosen to match the CFL buses and trains.

### Running quietly through the city

The funicular railway Arrêt Pfaffenthal–Kirchberg is another flagship project typifying the

successful use of ropeways for inner-city transportation. The two parallel systems forming the funicular are identical in design but operate entirely independently of each other. Each system has its own drive with transformer as well as its own control system and control unit. The fully automated funicular runs according to an adjustable regular-interval timetable and can be operated and monitored from three different locations. Damping elements along the entire route as well as low-noise pumps in the hydraulic brake system plus low-noise fan and cooler units guarantee particularly quiet operation. Operations were maintained on the adjacent railroad throughout the entire construction period. For the ropeway experts, this meant that all technical solutions and interfaces had to be precisely planned in advance. Garaventa won the contract for this project as the company can show a host of funicular reference projects as well as the relevant experience. The reliability of the components was another decisive factor for the owner as a high level of availability is an absolute must in the public transport sector. | 1



### 2x168-FUL Arrêt Pfaffenthal–Kirchberg

Owner	<b>Société Nationale des Chemins de Fer Luxembourgeois (CFL)</b>
Location	<b>City of Luxembourg (LUX)</b>
Inclined length	<b>200 m</b>
Vertical rise	<b>39 m</b>
Capacity	<b>7,200 PPH</b>
Speed	<b>7.0 m/s</b>
Carriers	<b>2 x 2 cabins for 168 passengers each</b>

"The funicular is the logical answer to the project requirements: integration into the natural landscape, capacity and reliability. The expertise of the Garaventa personnel was a major factor in the success of this project."

Tom Braun, Departmental Manager Responsible for Infrastructure Projects, CFL



## Doppelmayr Cable Car to build Cable Liner in London



**A new transport link is to be created at London Luton Airport – the trip from central London to the international airport will then take just 30 minutes.**

To support ongoing growth at London Luton Airport, a new connecting route of approximately two kilometres between the rail station Luton Airport Parkway and the airport is to be built. The system will be a new Cable Liner from Doppelmayr Cable Car, enabling passengers traveling to Luton from London St Pancras International to do the trip in 30 minutes.

London Luton Airport lies roughly 50 kilometres northwest of the UK capital. In order to make the journey significantly quicker for passengers and to offer them top comfort during the trip, London Luton Airport Limited is to invest in a new transport link between the rail station Luton Airport Parkway and the airport. The Direct Air-to-Rail Transit (DART) system will be a Cable Liner Shuttle from Doppelmayr Cable Car and will replace the current shuttle buses. At peak times, the congestion-free shuttle will provide a passenger service every four minutes. To ensure smooth operations of the Cable Liner during the first five years, Doppelmayr Cable Car UK Limited is to take charge of running the system – with an option to extend the agreement by another five years.

### Focus on local value creation

The Doppelmayr Group has a large number of similar reference projects to its name. In the UK, Luton is now the second airport that has placed its trust in the expertise of the global market leader. The Air-Rail Link in Birmingham has been operating since 2003. Work on the driverless, automated people mover system is due to begin shortly, and it is scheduled to go into public service in 2021. In this latest project, Doppelmayr Cable Car will be focusing a special

emphasis on value creation for the local area.

The partnership with schools and colleges in Luton will be particularly important during the implementation phase. Local businesses and young people are to be involved during construction of the Luton DART. The installation work is due to start in 2019. The attractive transport solution is aimed at encouraging passengers to travel to the airport by rail, thereby helping to reduce congestion on the roads. [↓](#)



## Two become one



Construction of the modern 3S lift known as the “3K” (Kaprun–Kitzsteinhorn–K-onnection) is to link up the two recreation areas of Maiskogel and Kitzsteinhorn.

The decision to merge the operating companies Gletscherbahnen Kaprun AG and Maiskogel Betriebs AG was taken at the end of September 2017. At the same time, it was

decided to build a ropeway to connect the two Austrian recreation areas of Maiskogel and Kitzsteinhorn. The 3K will link Kaprun's two local mountains in Salzburg, making the journey easier and more convenient for guests. At the moment, peak times mean traffic jams and slow-moving traffic between Kaprun and the bottom stations of the feeder lifts, Gletscherjet 1 and Panorama lift. This will soon become a thing of the past.



### Ropeway chain

In the meantime, the building permit has been obtained, and work commenced at the end of last year. The foundations for the towers of the 3S lift were largely completed in 2017; installation of the towers themselves is due to start in summer 2018. The official groundbreaking ceremony is planned for April 2018. The lift will be part of a long ropeway chain. From December 2019, it will be possible to travel direct from the center of Kaprun over the Maiskogel to the station at the top of the Kitzsteinhorn. | 1

## World first in Switzerland



The gondola lift Saanenmöser–Saanenwald–Saanerslochgrat in Gstaad will be the first D-Line with real-glass roofs on all the stations.

Even a world first has to respect the needs of the black grouse. No helicopter flights or blasting work is permitted during the closed season for black grouse from April through

July. In view of the importance of protecting these rare birds, construction work on the new 10-passenger gondola lift Saanenmöser–Saanenwald–Saanerslochgrat already began in Gstaad, Switzerland, in fall 2017. As soon the building permit was granted in mid-September, work immediately went ahead on building the tower foundations in order to be able to complete the project on schedule in fall 2018.



### D-Line stations with real-glass roofs

The gondola lift Saanenmöser–Saanenwald–Saanerslochgrat was originally built in 1979 and is now to be replaced in its entirety. Like its predecessor, the new lift will have two sections. Otherwise, however, it will bear little resemblance to the old lift. “The new ropeway technology will be a lot quieter, offer more space in the cabins and will also be a lot faster. With the real-glass design for the station, Gstaad can boast a world first,” said Garaventa’s Raphael Reinle at the groundbreaking ceremony. The real-glass roof for the stations is a design element of the new D-Line generation of ropeways, where the emphasis is on understated elegance. The cuboid roof with its large surface areas will in future offer the possibility of retrofitting a media facade. One option would be to project moving images onto the multimedia facade. | 1



Doppelmayr is always looking for well-qualified new recruits for the electrical department

# Welcome to the electrical department

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The electrical department is not only responsible for the cutting-edge control technology used on Doppelmayr ropeways, but has also played a pivotal role in some of the company's biggest innovations.

**E**very ropeway installation needs a control system. It must be as simple as possible to operate and nonetheless offer the full range of operating options. The electrical department ensures that the individually tailored solutions offer a maximum of comfort and functionality. With a staff of 45 employees, it is one of the biggest departments at the Doppelmayr headquarter in Wolfurt. It comprises two main sections: electrical planning and software. Development projects, risk management and project management also come under the electrical department.

#### Powered up

"In our case, electrical planning includes the electrical design of the ropeway installation," explains Daniel Pfeifer, head of the electrical department at Doppelmayr. "The controls engineer develops an entire electrical installation;

he virtually designs it from A to Z." That means, for example, sensors and actuators, logic, i.e. the intelligence of the machinery, as well as all the other electronic components. This leads to the creation of a complete, virtual installation in the CAD system. The engineer uses the installation diagrams to draw up a parts list, on the basis of which all the parts are approved for procurement and subsequent production. This is how every ropeway is individually manufactured for each specific contract.

#### Intelligent software

Once the electrical design of the ropeway has been completed, the software engineer starts work on the programming. He takes care of all the ropeway functions supported by the software and writes the control and user software that connects the user with the ropeway installation. "Our work is very varied," explains Daniel Pfeifer. "We not only have a host of different

ropeway systems – it goes without saying that a surface lift doesn't need the same control system as a 3S. There are also a lot of different tasks within a project. A web-based user software for the user interface, for instance, has to be programmed differently from the control software." Once the ropeway installation has been manufactured, the software engineer is responsible for the factory testing to ensure the proper function. After the entire electrical equipment has been installed on site, it is again the turn of the controls engineer, who is then responsible for start-up and commissioning.

#### Four eyes-principle

These two areas therefore constantly intermesh with each other. And that is how it should be, because a key element of the day-to-day work is the four-eyes principle: The controls engineer designs the installation and the software engineer is responsible for the factory testing.



The work of the electrical engineer is multifaceted and varied - whether it's in the office, in the lab or on the ropeway installation itself.

The start-up on site is then performed by the controls engineer. This procedure guarantees the quality and the smooth functioning of the products, because it means no one tests their own work – it's always a specialist from another area with an unbiased perspective.

#### A broad spectrum

At Doppelmayr, the members of the electrical department have a very special relationship with the completed ropeway installation because they are involved with it at the various stages. Their own work doesn't just consist of theoretical constructs, but also a great deal of practice all the way through until the ropeway ultimately goes into operation. This broad spectrum of different activities is particularly energizing for people who look for variety and want to expand their knowledge. Engineers working on development projects in the electrical department can familiarize themselves with

new technologies and gain valuable experience. Independently of the day-to-day routine, several teams are continuously involved with the innovations that come from Doppelmayr. The new control system, Doppelmayr Connect, was also developed in this way. The inspiration originates from customer wishes, the latest technical developments and internal idea management. | [1](#)

"The best thing about our work is that we get to experience the enthusiasm of our customers at first hand after seeing the ropeway through from the design stage to start-up."

**Daniel Pfeifer,**  
Head of the Electrical Department



## New to the team: Frey AG Stans

The company Frey AG Stans, which specializes in ropeway control systems, became a member of the Doppelmayr/Garaventa Group in 2017.

What began as a technology collaboration for the development of new products evolved into something more. As part of the succession arrangements for Peter Frey, the sole shareholder of the Swiss company Frey Holding AG, Frey AG Stans became part of the Doppelmayr/Garaventa Group in April 2017. The entire workforce of around one hundred employees has been retained. This means that the huge wealth of know-how that the employees have built up over the past 50 years will stay with the company. The Group welcomes them all to the international team. The cooperation with previous partners to Frey AG Stans remains unchanged. Customers are free to choose which control system they want to use for their ropeway installation.

#### Combined strengths

In future, Frey AG Stans will have access to the Doppelmayr/Garaventa Group's global sales channels. Synergies with the Group will also arise in the areas of engineering, procurement, fabrication and customer support. Frey FUA AG, a global leader in the field of remote monitoring and signaling technology and a wholly owned subsidiary of Frey AG Stans, also joined the Doppelmayr/Garaventa Group in 2017. | [1](#)

"The integration of Frey AG Stans into the Doppelmayr/Garaventa Group is a win-win situation for both parties."

**Hansruedi Schleiss,** CEO Frey AG Stans



# New course program now available

Tailored content and even more flexible training options for customers worldwide.

**D**oppelmayr supports its customers' personnel development activities by offering courses in Austria and around the world geared to the various ropeway types and to ensuring their smooth operations. But why should a ropeway operator train its personnel in the first place? The answer is simple: lower operating costs thanks to competent employees. If the operating crew know "their" ropeway, that enables them to work and respond safely, quickly and correctly. The availability of the means of transport increases, service requirements decrease and, ultimately, the life of the installation will be extended. Doppelmayr provides training on the basis of its many years of experience as the leading ropeway manufacturer.

## The ABC of ropeways

A new course included in the program for 2018

is the "Basic Course in Ropeway and Electrical Engineering". This covers the basic functioning of the various ropeway systems and is virtually an ABC of ropeways. No previous knowledge is required.

Also new is the course "Electrical Engineering for Experts – Doppelmayr Connect". Content includes topics such as safety circuits, brake control, spacing monitor and radio remote control. This course is aimed at electrical technicians working on ropeway installations with the Doppelmayr Connect control system. However, non-electrical technicians can also take part, provided that they have completed the course "Basic Ropeway and Electrical Engineering".

Another recent addition to the program is the mechanical course for the D-Line, which took

place for the first time in 2017. It provides basic knowledge for the operation and maintenance of this lift type.



An overview of the comprehensive range of training courses can be found in the new brochure.



The new Doppelmayr training container is state of the art and flexible to use

#### In Wolfurt or on the doorstep

The training courses are held either at Doppelmayr in Wolfurt or on request at the customer's premises – in line with individual requirements. The major advantage of attending a course in Wolfurt is that guests can visit the production facilities and the technicians are available for anything that needs to be discussed. A modern training container is used for courses held abroad. This container is equipped with everything to be found on a ropeway installation, from the control system to the brakes. It enables training courses to be held worldwide.

At the present time, 43 courses are planned in Wolfurt and another 10 outside of Austria for 2018. Further dates can be arranged on request. Last year, the training container trav-



eled around the globe, stopping at places such as the Sierra Nevada (Spain) and Bogotá (Colombia).

The courses envisaged in the current program can be booked in various languages. The training brochures are available as of 2018 in nine languages: in addition to German and English, also Russian, Chinese, Italian, Spanish, French, Korean and Vietnamese.

For more information on the complete program of courses, please feel free to contact your local office, visit us online at <http://service.doppelmayr.com/training> or mail your inquiry to [training@doppelmayr.com](mailto:training@doppelmayr.com). |

➔ Go to training program






The new apprentices at Doppelmayr and Garaventa can look forward to the exciting experience of training in the world of ropeways.

## 44 new apprentices at Doppelmayr and Garaventa

We would like to express a warm welcome to all our new apprentices! As of September 1, 2017, 34 motivated youngsters began their training at Doppelmayr. This takes the total number of apprentices in Wolfurt alone to 104, which is the highest number in the company's history. Together with the ten new apprentices at Garaventa, this gives a total figure of 44 newcomers for the Group. The Doppelmayr/Garaventa Group offers apprenticeships in a wide range of trades, including all those in the electrical and metal fields that are required in

ropeway construction. The training program is very varied for all apprentices. A system of rotation enables them to familiarize themselves with the various departments and areas. This gives them the chance to find out where their aptitudes lie, how they can best utilize their skills and what they enjoy most. An apprenticeship at Doppelmayr/Garaventa opens up a wealth of opportunities. For many of today's employees, it laid the foundation for an exciting career. | 

Information  
 on the various trades and  
 a promising future at Doppelmayr/  
 Garaventa can be found here:  
[doppelmayr.com/jobs](http://doppelmayr.com/jobs)



## Test sitting for vacation in Zillertal

Zillertal Tourismus GmbH recently came up with an eye-catching approach to motivating passers-by to spend their winter vacation in Zillertal. The visitor centers at the main rail stations in Dresden, Berlin, Frankfurt, Düsseldorf and Cologne were transformed into "Zillertal Chillout Lounges". The atmospheric mood, complete with snowman mascot, was rounded off with the kind of seating not usually found at railroad stations. The focal point of the chillout lounges was the latest D-Line 8-seater chair from Doppelmayr. Intrigued visitors were able to sit comfortably, dream of perfectly groomed ski slopes and get in the mood for Zillertal. To ensure they don't forget their vacation and to impress many of their friends, the winter experience selfie, which could be printed out using a photobox, was there to remind them. Well-informed employees were also on hand to help anyone wishing to find out more about the highlights and latest attractions in Zillertal. | [📄](#)



## Mi Teleférico: 100 million passengers and No. 1 on TripAdvisor

The ropeway network belonging to Mi Teleférico is the number one attraction in the Bolivian city of La Paz. TripAdvisor®, the biggest travel website worldwide, continuously compares the ratings for a total of 119 activities on offer in the region. Visitors to the website have put the urban ropeway in top position. The urban means of transport has currently attracted almost 3,000 ratings, with 71% awarding it a score of "excellent" and 24% "very good". Many tourists praise the unusual, yet economically priced means of doing a tour of the city by ropeway.

### 100 million passengers

The system's popularity is not only demonstrated online, but also quite clearly in real life. At 6.40 am local time on November 16, 2017, Mi Teleférico welcomed its 100 millionth passenger. | [📄](#)



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[doppelmayr.com](http://doppelmayr.com)

# Olympics trusts in Doppelmayr

Many Olympic venues around the globe have placed their trust in Doppelmayr. Ropeways supplied by the world market leader have already provided reliable transportation for Olympic athletes at many events.

Doppelmayr is again a major partner to the 2018 Winter Olympic Games in Pyeongchang. At four different venues, a total of 22 Doppelmayr installations will carry guests, athletes and their teams to the slopes. The gondola lift in Jeongseon, where the downhill and Super-G competitions are to be held, was already completed back in February 2016.

[doppelmayr.com](http://doppelmayr.com)



↗ ... to peak performance.

↗ From challenges ...