





The Customer Magazine of the Doppelmayr/Garaventa Group Issue 2/2015

40th Year/No. 196

Core business: winter

80% of the Group's revenues are derived from winter business

Easy boarding

Stress-free ropeway travel: New access system automatically regulates passenger flows

New attraction on the Titlis

Now the complete Rotair cabin rotates

Doppelmayr/Garaventa to build another six urban ropeway lines in Bolivia >> page 14





Easy boarding

Hassle-free access to the ropeway cabin – an innovative system from Doppelmayr and Skidata coordinates passenger flows.

Core business: winter

Winter ropeways are set to remain the most important market for the Doppelmayr/Garaventa Group. All customers profit as a result: urban ropeway operators, summer ropeway operators and those who use ropeways for material transport.



All good things come in threes

The Skicircus Saalbach Hinterglemm Leogang has no less than three new lifts – to the delight of guests and operating company alike.



Ropeway construction - even at 4,800 m

Garaventa's fitters are highly motivated and flexible. Together, they work 180,000 hours a year installing transport solutions to carry passengers and material.



Service by mouse click

The recently relaunched Doppelmayr/Garaventa service portal now offers not only more service options but also additional functions and even more attractive content.

Experiencing ropeway quality



Cutting-edge ropeway technology and a no-compromise quality mindset – these are the strengths of the Doppelmayr/Garaventa Group which all our customers have come to depend on. It is thanks to their foresight and their ability to continually confront us with new challenges that, year after year, outstanding ropeway installations become

reality around the globe. New developments and top achievements are the result. We would like to say a big thank you to our customers and partners for their vital contribution.

Every ropeway testifies to the high benchmark that we ourselves set for our products. Our goal is to provide the best possible support for the customer from the very start of the project and throughout the lifetime of the ropeway. To achieve that goal, the Doppelmayr/Garaventa Group maintains production sites as well as sales and service centers in over 35 countries worldwide.

Every two years, the international ropeway industry gathers in Innsbruck for the leading international trade fair dedicated to alpine technologies. Interalpin provides the ideal platform for direct dialog with customers, suppliers and partners from around the world, and for fostering business relationships. It is the most important ropeway show. It goes without saying that as world leader in the ropeway construction market our participation is an absolute must. Once again, exciting new developments will be on display at our 1,600 m² exhibition stand. Come along and see for yourself – discover our latest products and innovations as well as our impressive capabilities. We will show you the world of ropeways and look forward to meeting you personally at Interalpin.

Michael Doppelmayr CEO

New administration building in Wolfurt

Floor space approx. 21,000 m² (6 stories)

550 workplaces

 Investment volume approx. EUR 50 million

Site area approx. 8,000 m²



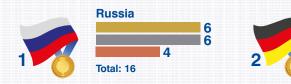
Doppelmayr is investing 50 million euros in a new office complex at its home base Wolfurt in Vorarlberg. The new administration building at the Hohe Brücke site will provide 550 modern workplaces. Departments which are currently split between various buildings will then be housed in one location. This will pave the way for the optimization of internal processes and communication. The groundbreaking ceremony for the project was held on December 15, 2014, and completion is scheduled for the last quarter of 2016.

EYOF 2015: Faster, higher, stronger

Major sporting events like the 12th Winter European Youth Olympic Festival (EYOF) bring young people closer to winter sports. This is a goal also pursued by Austrian Olympic Committee (ÖOC) partner Doppelmayr. EYOF 2015 was the first of these Olympic events to be hosted jointly by two countries. Some 900 athletes from 45 nations competed in eight different disciplines – and, of course, they were all able to enjoy the comfort of Doppelmayr lifts. In Vorarlberg/Austria and in the Principality of Liechtenstein there were a total of nine competition venues.



Medal standings:



Germany 6 5 10 3 Total: 21 Total: 13

Source: EYOF/www.eyof2015.org/Portals/0/PDFs/Media/1_Monat.pdf

European tourism records and winter vacation in the Alps



International arrivals

87%

Percentage of Austrian ski resorts with reliable snowfall

Skiers are the biggest group among winter vacationers

2/3 of Germany's ski regions lie in the Alps

According to the European Travel Commission, 2014 was a record year for tourism in Europe. As shown in the quarterly report "European Tourism 2014 – Trends & Prospects", international arrivals rose 22 million to 588 million – an increase of 4 percent. Austria can also be pleased with its performance. Statistics Austria reported a 1.9 percent increase in arrival numbers for international tourists in comparison with the previous year.



Alps as vacation area

Needless to say, the ski regions in the Alpine countries were also major attractions. The international region is famous for its ski resorts with their idyllic trails, modern lift installations and wide-ranging gastronomy. Around two-thirds of all German ski areas are located in the Alps. 87 percent of Austria's ski regions offer reliable snowfall. 72 percent of winter sports enthusiasts ski, and virtually all of them state that they wear a helmet when they do so. In addition to the skiers and snowboarders, there are a large number of guests who like to experience the Alpine landscape away from the ski slopes.

Sources: WKO – Austrian Economic Chamber (foreign trade magazine), September 2014; VDS – German Ropeway Association (www.seilbahnen.de); www.etc-corporate.org/uploads/pressreleases/pressrelease_pdf/78/2014-Q4-PR.pdf and newsroom.austriatourism.com/files/2015/02/2015e_factsheettourismus-in-oe-2014-extern stand-23-02-2015.pdf

Top five decision criteria when choosing an Alpine ski resort

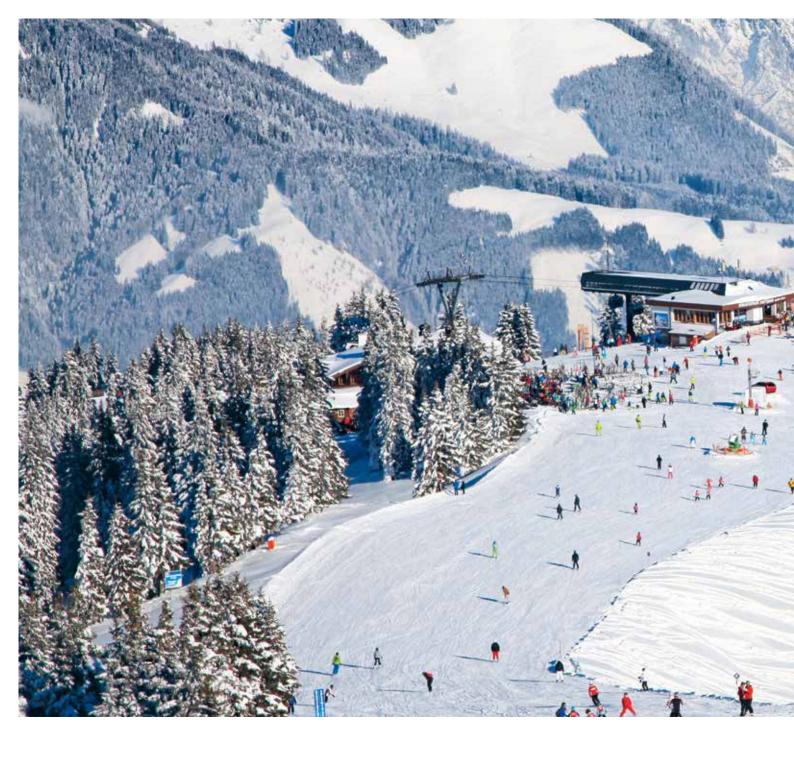
72%

- Size of ski region / trail offering
 Reliability of snowfall
- 3. Ski trail grooming
- **4.** Accommodation
 - Lift comfort

5.

What is important for winter sports enthusiasts when it comes to selecting a ski resort? This question has been analyzed in the "Best Ski Resort Report 2014". Winter sports practitioners were surveyed on the slopes of 55 top ski resorts in the five Alpine countries Austria, Switzerland, France, Italy and Germany.

Source: The survey on the best ski resort was conducted among 47,925 winter sports practitioners who were interviewed in the ski resorts themselves. Austria: 17,125; Switzerland: 13,456; France: 8,378; Italy: 6,912; Germany: 2,054. Multiple responses were possible.



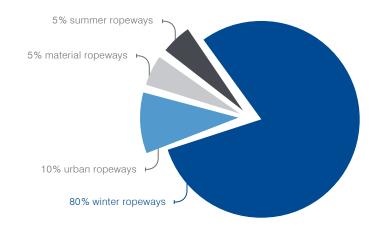
Winter tourism set to remain the key market for ropeways

The Doppelmayr/Garaventa Group builds ropeways for ski resorts around the globe – that's its core business. The experience gained in this area benefits all business divisions.



herever modern ropeway installations are to be found, tourism and trade flourish – especially in the winter season. That applies in particular to geographic regions which were once remote and difficult to get to. As well as creating attractive jobs, winter sports lead to the creation of infrastructure, which in turn acts as an important driver for sustained value creation.

Furthermore, an attractive winter tourist region helps to combat population drift. What would many Alpine valleys and famous ski resorts be without tourism? Perhaps nothing more than an out-of-the-way destination for individual hikers. Successful winter regions are above all those which have continually shown courage and pioneering spirit, and whose lifts and offerings reflect contemporary trends – from the smallest ski resorts to the top international destinations. Doppelmayr/Garaventa has been privileged to work with these pioneers right from the early days and to join them in setting many milestones. >> Sales significance: Distribution of revenues across business areas of the Doppelmayr/Garaventa Group





Custom ropeways to address special requirements never fail to impress: the exceptionally wind-stable Funifor comes into its own in the winter.

Experience and know-how from winter business

Ropeways for winter operation have always been the biggest area of business for the Doppelmayr/ Garaventa Group and are set to remain so. The large number of successful winter installations built for customers around the globe has enabled the company to build up a huge wealth of expertise. This explains the Group's position as the market's leading ropeway manufacturer. Rather like the way that the automotive industry profits from Formula 1, the experience and know-how gained from winter ropeways benefits the other divisions: urban ropeways, ropeways for summer operation and material ropeways. All our customers enjoy the fruits of that expertise in the form of innovations, further developments and professional advice. Or to put it even more dramatically: Without the winter business, the technology for today's urban sector simply wouldn't exist.

From the first ski lift in 1937 to the 3S gondola lift

The development of ingenious ropeway systems has a long tradition. Doppelmayr laid the foundation for that tradition, together with ski lift pioneer Sepp Bildstein, with the building of Austria's first ski lift in 1937. The list of inventions is long and never stops growing: from heated chairlift seats and the modern recovery concept through to the 3S gondola lifts. Technology which has been successfully tried and tested in the winter will certainly be dependable for passengers in the city. CEO Michael Doppelmayr sums it all up as follows: "The winter is our bread and butter. For us, the 'urban versus winter' question is not so much an 'either/or' but more of a 'not-only-but-also'." The combination of Doppelmayr/Garaventa know-how and customer foresight is what makes practical and visionary innovations possible. To this day, the company does not have its own research and development department. Instead, the Group's design engineers work in close contact with

Milestones and innovations in the winter sector





Seat heating for chairlifts in the meantime also available for gondola lifts, reversible aerial tramways and 3S lifts

C

Co

20

The first 3S lifts

are already in operation above the downhill run at the Winter Olympics in Val d'Isère (FRA)



Ferris wheel in Galzig (AUT) Special construction for bringing

Funitel cabins up to the acceleration level on the first floor of the station



Child-friendly chair model CS10

Up to 7 children plus one accompanying adult on each chair







The Grasjochbahn (AUT) is the first detachable gondola lift where Doppelmayr implemented its innovative recovery concept.

the world of practice and collaborate directly with the customer on real-world requirements and wishes.

The customer is king

In winter tourism there is a trend toward ever greater comfort – across all generations. It takes courage and vision to keep pace with these aspirations, if not to be one step ahead. And this is the starting point for the Doppelmayr/ Garaventa Group.

Around 80 percent of the ropeways built in any one year are new installations. They bring with them new levels of performance for the ski area: more comfort, more functions, more transport capacity. An outmoded lift installation is demolished and replaced by a new, more modern ropeway – entirely in line with constantly changing needs and expectations. As borne out by surveys, reliable snowfall, the amount of skiable terrain and the quality of the lifts are key decision criteria for skiers when picking a ski resort. That is also why new installations are continually being built, in some cases with the aim of linking up entire ski regions. Completely new possibilities are then opened up for the guests. A win-win situation for everyone concerned: guests, municipalities, lift operators and employees. The G-Link Wagrain (Grafenberg and Grießenkareck, Salzburg, AUT), the Auenfeldjet (Lech Zürs and Warth-Schröcken, AUT) or the Peak 2 Peak (Whistler Mountain and Blackcomb Mountain, CAN) are just a few of the many examples where Doppelmayr/Garaventa installations connect up entire ski regions.

The experts from Doppelmayr/Garaventa provide customers with solid support, going the extra mile to assist them and coming up with creative ideas to put their wishes into practice – particularly when the ultimate goal is to boost the attractiveness of a region. |1

World first: combination lift 8/10-CGD with 2 loading loops meets the requirements of all guests



20



20

10

Curved photovoltaic cells World's first chairlift with curved photovoltaic cells integrated into station roof: the Hüttenkopfbahn on Golm in Montafon (AUT)





World first: recovery concept enables safe return of cabins to stations if evacuation is required; now also available for detachable gondola lifts



20

More ropeway technology highlights and references can be found online at www.doppelmayr.com or on the Doppelmayr/Garaventa YouTube channel.



Carriage wheel generator Unique energy supply system for 3S gondola lifts, e.g. to power the seat heating **WIR.** Bergbahnen Sölden is continually coming up with new ideas and attractions that grab the headlines. How do you manage to keep on reinventing yourselves?

Falkner: In my view, it's not a case of reinventing ourselves – what we are actually doing is constantly maintaining a trajectory of further development. Perhaps we have a stronger

A partnership we can continue to build on in the future

WIR spoke to Jakob Falkner, CEO of Bergbahnen Sölden

awareness for marketing than some other resorts. Personally, I feel that if you consider the millions spent on the hardware, then you have to provide the money for the marketing to go with it. And, quite apart from all that, putting new ideas into practice is often great fun! WIR. The winter sports sector is visibly changing. How do you delight your guests? What trends do you anticipate in this area over the next few years?

Palkner: I don't think we're going to see any dramatic changes in the area of winter sports. The market and the competition are unlikely to get any easier in the future and constant technical improvement is set to continue – in terms of both lift construction and in the sports fields. In addition, of course, new possibilities for snow sports will be developed. Nonetheless, the focus will continue to be on skiing and snowboarding. We delight our guests with a top product: We invest in cutting-edge installations and can rely on factors like altitude and dependable snowfall. Sölden stands for sport and entertainment, and we supplement our offering with a wide range of events.

WIR. Doppelmayr and Sölden have enjoyed a close relationship for decades. What do you see as the cornerstones of that partnership?

P Falkner: The cornerstones of our long partnership are trust, performance and innovation. And we shall continue to build on these factors in the future.





Ever more creature comforts for Sölden's guests

Doppelmayr ropeway technology shortens the trip time despite a longer lift line.

Since the 2014/2015 winter season, winter sports enthusiasts have been enjoying a comfortable ride to the slopes thanks to a detachable 6-passenger chairlift on the Gaislachkogl ski mountain. The new lift with the striking blue bubbles replaces the old Wasserkarbahn, a fixed-grip triple chairlift also built by Doppelmayr. Once manually closed by the passenger, the restraining bar on each chair is automatically locked, thus preventing it from being opened during the trip and ensuring added safety. A fascinating detail: As part of the modernization, the bottom station has been moved half a kilometer further downhill and the black run has consequently been extended. Nevertheless, skiers get to the top station two minutes faster thanks to the modern ropeway technology from Doppelmayr. A new blue run from the Gaislachkogl mid station to the new Wasserkar bottom station has also been created.

Doppelmayr and Bergbahnen Sölden have enjoyed an excellent partnership spanning decades and have jointly realized countless projects during that time. These include the 8-passenger gondola lift Gaislachkogl 1 and the 3S lift Gaislachkogl 2 built in 2010. With the construction of the new Wasserkarbahn, the ski resort is once again adding to the level of comfort provided by its lifts. **|**4





4 months

Completion time

Easy boarding

A novel access system guarantees hassle-free loading for gondola passengers.

ast

oppelmayr and Skidata have come up with an exciting new development which is already attracting a lot of attention. In 2014 they upgraded the Stubnerkogelbahn in Salzburg with the "Easy-Boarding.Gate", which ensures a relaxed and hassle-free boarding experience for ropeway passengers.

Guests using the Stubnerkogelbahn in Bad Gastein built in 2009 have been enjoying a new comfort feature since the end of November 2014. The Salzburg ropeway is the first to adopt the innovative EasyBoarding.Gate, which provides for calm and organized access to the cabins. Doppelmayr and Skidata AG worked closely to develop the new principle, which has been put into practice for the first time in Gastein. Sounds fascinating, but how does it work exactly?

More time and space for loading

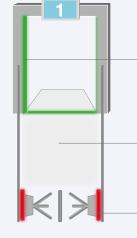
The trick: Cabin allocation takes place in the waiting zone. While the passengers wait for their cabin to arrive, info screens explain how the EasyBoarding.Gate works. This new access solution regulates passenger flows automatically and fully in line with ropeway operations. It communicates with the users by means of traffic lights, light signals and readily

understandable status displays so they are optimally prepared for boarding. The exact number of passengers that can be taken by one cabin first gather at the access turnstile and are counted by a countdown display. When the green light is given, the turnstile is released for access to the cabin. EasyBoarding.Gate is particularly convenient for groups and families - particularly those with children. The waiting zone means that passengers traveling together can get organized in good time. Thanks to the intelligent technology, winter sports guests have more room and more time, which makes for significantly more relaxed cabin boarding. At the same time, this ensures greater efficiency for ropeway operations.

"Our ski guests took to the new system right from the word go and enjoy a significantly easier and more comfortable boarding experience. We're very pleased with the new access solution. The regulated access flows mean we make optimal use of gondola lift capacity." Franz Schafflinger, CEO of Gasteiner Bergbahnen AG

Intelligent technology – how it works





EasyBoarding.Gate communicates with the passengers by means of traffic light signals and readily understandable status displays.

Passenger flows are automatically regulated in line with ropeway operations. The lift operators can set group sizes individually to suit cabin capacity and demand.

EasyBoarding.Gate allows passengers through to the respective access gate until the correct group size has been reached and assigns them to the cabins.

Before accessing the gate, the groups can clearly identify which gate they should enter in order to ride in the same cabin.

Benefits of EasyBoarding.Gate for the guests:

- Enhanced recreational experience for the guests as boarding stress is eliminated
- The entire operation runs a lot smoother, in a more organized and relaxed fashion
- · The guests get back onto the slopes faster
- Who rides together? The decision as to who travels in which cabin is made on entry into the waiting area
- Improved service: Operating crew can focus more attention on the guests

Benefits of EasyBoarding.Gate for the operator:

- EasyBoarding.Gate is virtually selfexplanatory and works with barely any instructions
- Lift crew have more time to help children and seniors
- Lower noise levels improve working environment for personnel
- Manual, active control of passenger numbers per cabin possible in the bottom station
- Boarding in the mid station can therefore always be guaranteed
- Enhanced safety as rapid intervention is no problem
- Higher filling level of cabins thanks to no-hassle loading
- Organized and relaxed handling of large passenger volumes
- Avoidance of incidents and associated emergency stops as there is less pressure in the boarding area
- Flexibility of the system makes retrofitting on existing gondola lifts possible as well as integration on new installations



Phase II

- Línea Azul: 16 de Julio Río Seco
- Línea Blanca: Del Libertador Plaza Villarroel
- Línea Naranja: Estación Central Plaza Villarroel

Línea Celeste: Irpavi – Cota Cota

- 💼 Línea Morada: Terminal de Transporte San José
 - Línea Café: Monumento Busch Villa Copacabana/San

Phase I

- 10-MGD Línea Roja: 16 de Julio Cent
- 10-MGD Línea Amarilla: Parque Mirador Libertado
- 10-MGD Línea Verde: Libertador Irpavi

Another 20 kilometers of ropeway for Bolivia



Mi Teleférico is to add another six new lines to the world's biggest urban ropeway network.

Since May 30, 2014, more than 16 million residents, commuters and tourists have used the urban ropeways in La Paz and El Alto. And because the response to the aerial transport network built by Doppelmayr/Garaventa in Bolivia has been so overwhelmingly positive, the state-owned enterprise Mi Teleférico has now taken the decision to continue its successful approach of environmentally friendly mobility. Doppelmayr was awarded to contract to build another six urban ropeways on March 5, 2015. These will provide another boost for mobility, improve infrastructure and relieve traffic congestion.

Extensive ropeway network for all

Twenty kilometers of new ropeway routes will be constructed by 2019 as part of this new mega



project. The red, yellow and green lines (Líneas Roja, Amarilla and Verde) in Phase I created a ropeway network covering ten kilometers and eleven stations. The new Phase II lines – again detachable 10-passenger gondola lifts – will be known as blue, white, orange, sky blue, purple and brown, and include a total of 23 stations. The timetable for the four-year project is as follows: The start-up of the Línea Azul (blue) and the Línea Blanca (white) is planned for 2017, with Naranja (orange) and Celeste (sky blue) to follow in 2018, and finally Morada (purple) and Café (brown) in 2019.

Doppelmayr/Garaventa will again be delivering the installations for the second phase on a turnkey basis. This means that the experts will take responsibility for the entire construction, production, ropeway technology, installation, logistics, etc., as well as for training personnel on site.

Customer Empresa Estatal de Transporte por Cable "Mi Teleférico"		Total length	approx. 20 km	(Tota	<u>a</u> ,	
		No. of stations	23			
SupplierDoppelmayr/Garaventa GroupRouteLa Paz-El Alto (BOL)		Ropeway network	6 detachable			
	OL)		10-passenger gon	assenger gondola lifts		
Project duration	2015–2019					
	Línea Azul	Línea Blanca	Línea Naranja	 Línea Celeste 	Línea Morada	Línea Café
Departure station	16 de Julio	Del Libertador	Est. Central	Irpavi	Terminal de Transporte	Monumento Busch
Arrival station	Río Seco	Plaza Villarroel	Plaza Villarroel	Cota Cota	San José	Villa Copacabana/ San Antonio
Route length	4,934 m	3,926 m	2,648 m	3,253 m	4,585 m	955 m
No. of stations	5	5	4	3	4	2
Trip time	17.95 min	14.59 min	9.83 min	11.34 min	16.28 min	3.18 min
Capacity	3,000 PPH	3,000 PPH	3,000 PPH	3,000 PPH	3,000 PPH	2,000 PPH (increase t 3,000 PPH possible)
No. of cabins	223	177	approx. 122	147	approx. 207	29 (based on 2,000 P



New 3S lift to Penken Action Mountain

Mayrhofen chooses Doppelmayr/ Garaventa's tricable gondola system

The success story of Doppelmayr/Garaventa 3S lifts continues with the decision by Mayrhofner Bergbahnen AG to upgrade their ski and recreation resort in the Zillertal at the end of the current winter season and replace the existing bicable gondola with a modern tricable lift installation. The construction work will begin on April 13.

Guests using the new Penkenbahn can look forward to the unique smooth running of the 3S gondola lift and enjoying the magnificent panorama of the Zillertal Alps all year round. The 33 cabins on the new lift will be spacious and comfortable, with each one offering seats for 24 passengers. The lift will carry up to 2,880 passengers an hour up to the Penken. If required, this capacity can be increased as each cabin has room for another eight standing passengers. This means that waiting times can be dispensed with. The new Penkenbahn will incorporate a special safety system. With the recovery concept developed by Doppelmayr, there is no longer any need for a rescue carrier. Two independent emergency drives can be used to operate the lift and return all the cabins to the stations in an evacuation situation. **[4**



Breaking News

30-TGD Penken

Customer	Mayrhofner Bergbahnen AG
Location	Mayrhofen/Zillertaler Hochalpen (AUT)
Capacity	2,880 PPH (with option of increase)
Trip time	8.2 min
Completion	Summer/fall 2015

All good things come in threes in Saalbach Hinterglemm Leogang

The Skicircus Saalbach Hinterglemm Leogang chooses enhanced child safety and ride comfort.

Since the 2014/2015 winter season, the Salzburg ski resorts of Saalbach, Hinterglemm and Leogang, which together form the Skicircus, have been able to offer their guests three new lifts. While a new 10-passenger gondola lift and a new surface lift are now operating in Leogang, the operating company Saalbacher Bergbahnen has also modernized one of its chairlifts. The three Doppelmayr lifts have brought an additional boost to the attractiveness of the ski region. Collaboration ran perfectly all the way through, from the initial planning permission negotiations to start-up.

😟 8-CLD-B Polten Lift

Customer	BBSH Bergbahnen Saalbach Hinterglemm GmbH (AUT)
Lift type	8-seater chairlift with blue bubbles and seat heating
Carriers	42 chairs, model CS10
Inclined length	710 m
Vertical rise	232 m
Speed	5 m/s
Capacity	3,600 PPH

Polten Lift: perfect match of childfriendliness and comfort

To increase ride comfort and safety, especially for children, the operating company - BBSH Bergbahnen Saalbach Hinterglemm GmbH replaced their existing quad with a new 8-seater chairlift with heated seats and blue bubbles. Despite the very high capacity, the guests have plenty of time for relaxed loading as the speed is reduced to 0.6 meters per second in the station. The Polten Lift, which is used for repeated uphill trips as well as providing the connection to Leogang, is fitted with Doppelmayr's childfriendly chair model CS10. The fully automatic restraining bar with individual footrests for the passengers prevents them from slipping out of the chair during the trip. This chair model enables up to seven children to be carried with one accompanying adult - a great advantage for ski schools in particular.



Kraller Practice Lift: a small lift with a big impact

Between the Krallerhof wellness hotel and the new Steinberg gondola lift lies a practice slope used by children and beginners. The new attraction operating here since the 2014/2015 winter season is the Kraller practice lift – a platter lift incorporating some impressive technical features. The CCTV monitoring system with out-



door screen at the bottom station in combination with the special outdoor control panel enables the personnel to operate the lift not only from the operator's hut but also outside it. While helping skiers and snowboarders to load, the operator can keep sight of operations and intervene immediately if necessary. Doppelmayr worked with Leoganger Bergbahnen GmbH to create an optimal loading situation on the Kraller practice lift, both for the guests and for personnel.

Leoganger Bergbahnen GmbH (AUT) Lift type Surface lift Inclined length 356 m Vertical rise 36 m Speed 2.5 m/s

650 PPH

Capacity



the Polten 8-seater chairlift. It ensures an even smoother ride. The rubber bumpers have been replaced by two springs left and right. These provide a particularly high level of ride comfort by minimizing the jolts produced as the chair passes over a tower. In addition, an entirely new cross swing dampener ensures smooth entry into the stations. Any side jolts are absorbed almost entirely, ensuring top comfort for the passengers.

Steinberg gondola lift: clean architectural lines and low-noise operation

The new Steinberg gondola lift is the second feeder lift from Leogang to the Skicircus. It climbs 942 vertical meters and has a total length of 3,778 meters. The impressively short construction phase of just seven months was preceded by several planning permission hearings and years of planning until the wish for a new ropeway could finally become reality. The area around the bottom station including the access road to the lift and the renowned Krallerhof wellness hotel nearby has been completely redesigned - with an emphasis on aesthetically appealing architecture as well as on functionality. Access to the gondola lift, which operates all year round, is from the first floor of the twostory bottom station building, where the parking facility for all 105 of the 10-passenger cabins is also housed. The ski hire, ski school and various stores are also located in the same building.

The Steinberg gondola lift features a special drive concept. Doppelmayr installed a common drive for both sections in the mid station and the biggest of its kind ever built by the ropeway specialists. This meant that smaller rope diameters and a shorter mid station could be used, which brought economic advantages for the customer, both in terms of initial outlay and operation. In the interests of sustainability, the exhaust heat given off by the motor and gear unit is used for heating purposes.



😟 10-MGD Steinbergbahn

Customer	Leoganger Bergbahnen GmbH (AUT)
Lift type	Detachable gondola lift with mid station drive
Carriers	105 cabins
Inclined length	3,778 m
Vertical rise	942 m
Speed	6 m/s
Capacity	2,500 PPH



4-CLF Freedom Quad Chair

Customer	Perisher Blue Pty. Ltd.
Location	Perisher, Snowy Mountains, New South Wales (AUS)
Carriers	107 fixed-grip chairs
Inclined length	825 m
Vertical rise	200 m
Capacity	2,400 PPH
Opened	June 2014

Even more skiing and snowboarding fun

The new Freedom Quad Chair in Perisher unlocks expansive terrain at Australia's biggest ski resort.

Perisher is the largest and most popular alpine resort in Australia and boasts a recently installed highlight: the new Freedom Quad Chair located in Guthega, one of the 4 resort areas on offer across Perisher's 1,245 hectares. As well as providing a faster and more comfortable ride up the mountain, the new lift increases uphill capacity in the Guthega section of the resort by almost 50 percent. The location of the top station was chosen to offer guests the option of groomed trails as well as off-piste skiing and



magnificent views of Australia's highest peak, Mount Kosciuszko. The modern Freedom Chair represents a milestone for the resort, where up to now surface lifts have predominated.

"The 2014 season saw large snowfalls and the skiing was fantastic across the entire resort. The new Freedom Quad Chair unlocked some great terrain in the iconic Guthega resort area and allowed guests to make the most of the conditions. No doubt Perisher guests are excited about getting back to the Freedom Chair again during the 2015 winter season." | Peter Brulisauer, CEO of Perisher Resort



Titlis: Breathtaking panoramic view

The reversible aerial tramway up to the summit of Mount Titlis amazes guests with new cabins that rotate fully about their own axis.

The Rotair made history as the first aerial tramway with rotating cabin floors. The cabins supplied in 1992 have now been replaced. The new models made by CWA Constructions S.A. also incorporate a special feature. During the trip from the bottom terminal up to the Titlis, the entire cabin – and not just the floor – revolves 360° about its axis. This opens up a unique panoramic view of the glacier landscape during the five-minute ride.

The rotation mechanism is located on the cabin roof. Thanks to this novel system, it was possible to dispense with the dominant central column in the cabin. For the passengers, that



means more room and therefore greater comfort. The tanks for carrying water up to the summit restaurant have been retained as an integral feature of the new cabins.

😥 75-ATW Stand-Titlis

Customer	Bergbahnen Engelberg- Trübsee-Titlis AG (BET)
Location	Engelberg, Obwalden (CHE)
Lift type	Reversible aerial tramway, 2 new Rotair cabins (CWA Constructions S.A.)
Cabin capacity	74 passengers + 1 cabin attendant
Opened	November 15, 2014

Rosim lift connects ski resorts in South Tyrol





The Madritsch and Kanzel ski areas are now linked thanks to a new 10-passenger gondola lift.

With the new Rosim lift, it now takes skiers just four minutes to get to the Panorama ski trail at an altitude of 2,450 m in the Kanzel ski region. This is the first 10-passenger gondola lift in the ticketing network known as the Ortler Skiarena, which incorporates 16 ski areas in the western part of South Tyrol. As well as providing access to additional attractive ski trails, the Rosim lift serves as connector between the Madritsch and Kanzel ski areas in Sulden – which has the added bonus of reducing car traffic in the village.

Doppelmayr Italia responded to the call to tender by submitting an impressive bid and was awarded the contract. The ropeway experts were responsible for the handling and coordination of the overall project as well as the entire planning of the ropeway technology. The Rosim lift was delivered on a turnkey basis. **[1**



😳	10-MGD Rosim
Customer	Seilbahnen Sulden GmbH
Location	Sulden, South Tyrol (ITA)
Lift type	Detachable 10-passenger gondola lift
Carriers	34 cabins
Application	Winter operation
Opened	November 28, 2014

Increasing visitor numbers for winter wonderland Damüls Mellau





The new, ultramodern Sunnegg 6-seater chairlift bridges steep terrain between Damüls and Oberdamüls.

Once upon a time, guests had to take the Sunnegg double chairlift built in 1982 and the Gratlift to get to Oberdamüls higher up. Nowadays, however, they can do the trip while enjoying the comfort of a detachable 6-passenger chairlift with heated seats. Both the chair design and the blue bubbles have been specially styled in line with the ski resort's branding. The new chairs feature a restraining bar with individual footrests, which remains locked after manual closing. The cost-effective and stylish solution is the result of various studies by the operating



company, Damülser Seilbahnen, in close cooperation with Doppelmayr. The investigations, which began in 2007, explored options for the lift alignment and the location of the new top station. One of the towers required a special foundation and was secured with ground anchors in view of the steep terrain along sections of the lift alignment. The parking arrangement also called for a special solution in view of the limited space available. The support structure is used for parking some of the chairs in the bottom station. As the resort's proven ropeway partner, Doppelmayr has built ten new lift installations in Damüls over the past 25 years. |1

🧐 6-C	CLD-B Sunnegg
Customer	Damülser Seilbahnen GmbH & Co KG
Location	Damüls, Vorarlberg (AUT)
Inclined length	1,119 m
Terrain gradient	max. 73 %
Speed	5 m/s (halves previous trip time)
Capacity	2,400 PPH
Carriers	55 chairs with individual footrests and restraining bar which locks automatically after manual closing
Completion time	4 months
Opened	February 6, 2015

"When it came to selecting an optimal lift and alignment, we had tough requirements to meet. First and foremost, we wanted the new Sunnegg lift to offer a significant improvement in comfort and safety, but had to contend with the adversities of wind, geology, a steep slope which we wanted as a ski run with no towers and limited space at the bottom station. Doppelmayr showed great professionalism in the way they resolved all these issues. Our collaboration was perfect: from the project planning and installation through to the commissioning - it was all handled entirely to our satisfaction. We couldn't have wished for anything better. And, most important of all, our guests are delighted." | Markus Simma, Managing Director of Damülser Seilbahnen



Comfort upgrade for the Steinplatte ski area

ea

Particularly energyefficient and quiet drive brings benefits for guests and operator.

In the Tyrolean resort of Kammerkör, the operating company, Steinplatte Aufschließungs GmbH & Co KG, has replaced the existing triple chairlift with a new Doppelmayr installation to

ensure the optimal level of quality and comfort expected by its guests. The detachable 6-passenger chairlift with bubbles and seat heating is equipped with features to enhance the safety of the youngest guests. The restraining bars with individual footrests are closed manually and automatically locked. Loading is facilitated by the inclusion of a loading conveyor. The customer has demonstrated how highly it values Doppelmayr by entrusting the company with building its four most recent lift installations. The ropeway experts supplied the entire mechanical and electrical equipment. The lift drive is particularly energy-efficient and quiet, another feature greatly appreciated by winter guests. The construction of this latest chairlift has not only improved access to the ski slope and restaurant but also the distribution of visitors within the ski area. 4



	6-CLD-B Kammerkör
Customer	Steinplatte Aufschließungs GmbH & Co KG
Location	Waidring, Reit im Winkl (AUT)
Lift type	Detachable 6-passenger chairlift with bubbles
Carriers	77 chairs
Vertical rise	401 m
Drive	DSD (Doppelmayr Sector Drive)
Capacity	2,400 PPH uphill
Speed	5 m/s
Opened	2014/2015 season

"The new 6-passenger chairlift with seat heating and bubbles means better comfort for our guests - and the new alignment has enabled us to extend the downhill runs and improve the distribution of visitors within the ski area. The response, particularly among our regular guests, has been nothing but positive as everyone is delighted with the fact that the resort's offering is now even better than before. The construction site for this project proved to be a great challenge for all the parties involved, but I have to say that the collaboration with Doppelmayr was excellent - and always has been on previous projects too. The entire installation crew did a great job. I'm always positively surprised by Doppelmayr's perfect handling of the logistics involved with delivery and their strict adherence to the timetable. The new lift is a huge asset for the future of the Steinplatte ski area."

Andreas Brandtner, Managing Director of Bergbahnen Steinplatte Waidring

Double loading system

Doppelmayr has replaced a chairlift in Europe's highest ski resort.

Between June and November 2014, the specialists from Doppelmayr installed a new, modern 6-seater chairlift in the French ski resort of

> Val Thorens and Europe's highest. La Portette replaces an outmoded quad chairlift also supplied by Doppelmayr. The bottom station features a double loading system which was specially developed in close collaboration with Val Thorens. This system improves the boarding operation for the guests. Two chairs stand ready for loading, which not only increases transport capacity but also means

greater comfort for the passengers who now have more time to board. The operating and maintenance crew on site underwent special training to ensure competent handling of the specially designed double loading system.

5	6-CLD La Portette
Customer	Société d'Exploitation des Téléphériques Tarentaise Maurienne (SETAM)
Location	Val Thorens, Rhône-Alpes (FRA)
Lift type	Detachable 6-seater chairlift
Length	1,796 m
Capacity	3,600 PPH



0

Long-awaited gondola lift for Weissenstein



The new lift on Solothurn's local mountain is a resounding success with families and sports enthusiasts.

The five-year wait has finally paid off. Since Christmas 2014, visitors to the hiking and recreation area have once again had the option of a gondola ride up to the Weissenstein – and in comfortable 6-passenger cabins into the bargain. The two-section gondola lift was an immediate hit as soon as it opened to the public, with more than 30,000 passengers using it in the first two weeks of service.

The Weissenstein lift can offer twice the capacity of its predecessor when required. At the same time, operations can be trimmed to suit passenger volumes – lift speed and the number of cabins can be reduced, with the option of an economical grouped-carrier operation in off-



peak times. The station architecture is visually appealing and the level access to the cabins makes the lift particularly attractive for wheelchair users and families with baby strollers. Holders are also provided to enable the safe uphill and downhill transport of mountain bikes.

~	D Oberdorf- elboden-Weissenstein
Customer	Seilbahn Weissenstein AG
Location	Solothurn SO (CHE)
Lift type	Detachable 6-passenger gondola lift (summer/winter operation)
Capacity	up to 900 PPH (final stage 1,200 PPH)
Carriers	49 cabins; final stage 65 (suitable for wheelchairs and baby strollers; every other cabin has a mountain bike holder)
Inclined length	2,377 m
No. of stations	3

Digital advance on the slopes

Real-time communication between guest and resort operator: Input[®] and Loop21 present an entertainment and info tool.

The software company Loop21 and project developers from the Doppelmayr subsidiary Input[®] Projektentwicklungs GmbH have jointly come up with a project that will put ski resorts one digital step ahead. The "WLAN that can do more" goes under the name of Mountainment[®] and enables ski resort guests to discover useful information about the resort, their current location, the weather or bars and restaurants.

The latest ski trail information is also available at the press of a key. Whether out on the slopes or while riding on the lift – the digital service enables real-time communication between guest and resort operator. The guest is digitally "picked up" as soon as he or she enters the ski area. The success of this innovation is borne out by the latest access figures: In Vienna's 2015 semester vaca-





tion week alone, Mountainment[®] recorded 90,000 visits in the Tyrolean ski resort of Sölden – twice as many as last year. Operating companies benefit in the form of comprehensive statistics and movement analyses. The demand is encouraging: The ski resorts Silvretta Montafon, Sölden, Kaprun, Ellmau and several others have already placed their trust in the WLAN system. In addition, the ropeways Kings Cab in Salzburg's Hochkönig ski area and the Panorama Lift in Silvretta Montafon also have the world's first WLAN in the cabins. |**1**





🐼 Mountainment®

Project partners Input® Projektentwicklungs GmbH – developers of experience concepts for tourist regions (Salzburg, AUT), Loop21 Mobile Net GmbH (Vienna, AUT)

Ski resorts with WLAN solution

Sölden (2011) Warth (2012) Silvretta Montafon (2012) Lech-Zürs (2014) Kitzsteinhorn – Kaprun (2014) Mayrhofen (2014) Fieberbrunn (2014) Gargellen (2014) Ellmau (2014)

WLAN in the cabin

Kings Cab in the Hochkönig ski area (2013)

Panorama Lift, Silvretta Montafon (2014)

100-ton track ropes and meals at 4,800

An insight into the daily routine of the Garaventa installation crews

araventa's fitters build a range of passenger and material transport systems in many different countries and cultures – sometimes under particularly arduous conditions.

If you wonder what a day in the life of a ropeway fitter might be like a long way away from the office world, then you might like to hear a description of a day's work for the Garaventa crew who built the Pico Espejo reversible aerial tramway in Venezuela. Garaventa's field installation team comprises two goups, one in Goldau and one in Gwatt, each with some 30 fitters. The fitters come from a wide range of industries and in many cases have learned fundamentally different jobs: from truck mechanic and ropeway mechatronics technician to carpenter, joiner or forest manager. What they all have in common is their self-reliance, their sense of responsibility and their capability as team players. They are good at gauging risk and, in addition to a well-developed technical understanding, enjoy out-of-the-ordinary challenges – and, of course, they are willing to travel.

One-hour trip up the mountain to reach the construction site

A typical working day, in this case building an aerial tramway in Venezuela, starts at 5 am when the fitters meet up for breakfast in the "canteen", i.e. the storeroom next to the bottom station. These early morning gatherings are an opportunity to talk, joke and tell each other what's been going on at the site. At 5.30 am it's time to get changed and kitted up: the men pack the required tools, food and personal items they will need for the day. Nothing must be forgotten because a trip back to the tool store means losing two hours – an hour down the mountain and another back up again. Once the chief fitter and the group leader have

Tasks



- Installation/assembly of new ropeways through to start-up
- Installation of ropeway rebuilds and upgrades
- Service and maintenance work
- Support for sales in the case of installation concepts and preliminary costing
- Support in the case of complex rope installation jobs within the Doppelmayr Group



Ropeway fitters come from fundamentally different jobs. What they all have in common is their self-reliance, their sense of responsibility and their capability as team players.

"With our experience, our know-how and our go-getting attitude, we can rise to every challenge." Andreas Wyttenbach, head of the Garaventa field installation team in Gwatt

discussed the work ahead with the teams, the crew head off for the trip up to the construction site at around 6 am: "We dismantle the old mountain or to the camp at approx. 3,400 meters on La Aguada. For fitters who eat at the top station Pico Espejo (approx. 4,800 m) or elsewhere

"In this job, changes to plan and improvisation are all part of the routine. That's why characteristics like flexibility, motivation and endurance are a must."

Alois Riedener, head of the Garaventa field installation team in Goldau

tramway and install the towers, the track ropes weighing up to 100 tons, the drive and the stations for the new one. Then the cabins go onto the rope and we start to test run the installation and work on the fine details. The work is very varied," says Alois Riedener.

Meals sent by material ropeway

At around 12 noon, the fitters meet up again for lunch. Those who can travel back down the

along the line, lunch is sent up via the material ropeway in special containers. At 1 pm, it's back to work because you have to make the most of daylight hours. At roughly

6 pm, they all return to the storeroom to put away tools and equipment. This is followed by a feedback session with the chief fitter to report on the day's work. In the evening, the fitters gather at a local restaurant for dinner at around 7 pm before heading off to their lodgings. Andreas Wyttenbach, head of Garaventa's field installation team in Gwatt, sums up the rest of the day: "After a strenuous day at altitudes like this, your 'nightlife' consists of relaxing and sleeping."

? Did you know that ...

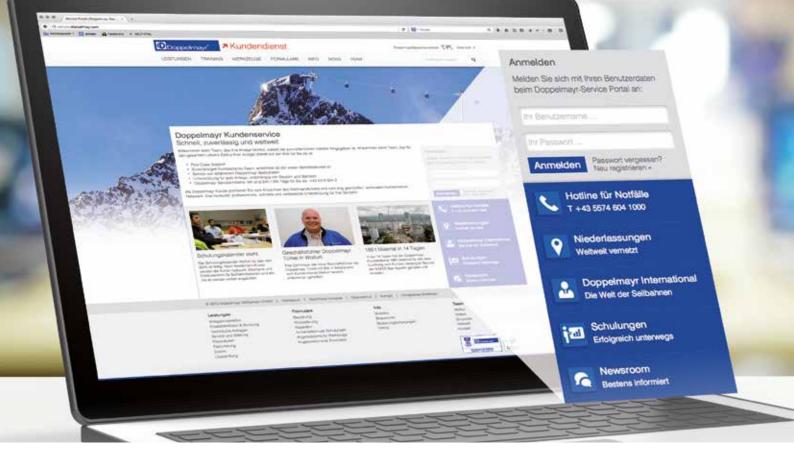
the Garaventa installation teams spend around

180,000

installing ropeways?

.. every fall up to

130 fitters will be working on construction sites?



Service portal supports customers worldwide

Useful functions, new design and versions in various languages – that's the Doppelmayr service portal.

he service portal, a platform provided for the convenience of Doppelmayr customers, has completed a successful relaunch. It has been available online in a new design and in various languages since September 2014.



Doppelmayr customers have long been taking advantage of the direct access to valuable services. A host of practical functions and attractive content have now been added, and there are even more service options. The service portal makes it easier to order spare parts as well as facilitating communication with the required contact at Doppelmayr. For this reason it is a useful work platform for customers. They can also use it to find out about the latest training programs on offer, complete the forms to register for courses and access the services available for their specific country.

Pooling knowledge and exchanging experience

A particularly valuable feature for customers is the ability to exchange experience and knowhow. Peter Thurner, head of Customer Support at Doppelmayr, explains: "The trend is toward 'information that is available any time, any place'. For us, this is a clear mandate to continually develop the offering on our service website – exciting functions and more countries are in the pipeline. We're working closely with our customers here to make their work easier for them by providing meaningful tools and content."

elmayr Service Portal
German, English, French, Russian, Spanish
Spare parts orders, contact, exchange of know-how and experience, overview and booking of customer services, training programs and courses
(Status: January 2015)

New service carrier optimizes maintenance

The operating company Jungfraubahnen is using a new maintenance carrier on three of their ropeways for simpler, safer and more cost-effective sheave assembly inspections.

Ropeway systems are constantly growing in size and capacity, leading to an increase in the dimensions and weights of equipment assemblies on the line. In response, Garaventa has developed a service carrier to enable crews to perform maintenance work quickly and safely, even in inaccessible terrain.

Ongoing advances in technology have resulted in a continual rise in ropeway capacities in recent years. As a consequence, the size and weight of ropeway components have increased. Nowadays, sheave assemblies weighing between 2.5 and 3 tons are nothing unusual. Garaventa has developed a novel service carrier so that the ropeway professionals from the Swiss Jung-

"We're no longer dependent on a heavy-lift helicopter – that means no more flight costs and our maintenance personnel also appreciate being able to work safely and efficiently with the new carrier." Andreas Zenger, Technical Director Ropeways, Wengernalpbahn AG (Jungfraubahn Holding)

fraubahn Group can carry out their inspections directly on the line, thus avoiding the cost of helicopter deployments. This means that even in the case of inaccessible terrain major repair work can be performed in situ.

Moving from one ropeway to the next

The new service carrier has a generously sized working platform – designed to take up to three people – and can be run along the rope to the towers. The carrier can also be moved between ropeway systems in the sports and recreation area. A towing hitch and an axle with wheels are all part of the package. The platform is adjustable in height and angle to ensure ergonomic working conditions. Needless to say, work safety is writ large: Handrails, toeboards and various anchor points are incorporated to protect the ropeway crew in every position. 4

Garaventa Service Carrier

Application	Service and maintenance work directly on the line
Completion	Development, design and delivery in 2013
Customer	Jungfraubahnen, Interlaken (CHE)
Operator	Wengernalpbahnen (Jungfraubahn Group)
Supplier	Garaventa AG
Location	Used for inspections on the three new 6-seater chairlifts Arvengarten-Honegg, Arvengarten-Eigergletscher and Wixi-Lauberhornschulter

For further details and inquiries, please contact Raphael Reinle: raphael.reinle@garaventa.com

Benefits

- Work can be performed safely, ergonomically and swiftly on the service carrier
- Direct access to sheave assemblies from the platform of the service carrier for maintenance and repairs (no removal necessary)
- Operators without spare sheave assemblies save two cost-intensive helicopter deployments (installation and removal)
- Service carrier available at all times
- Simple means of transporting spare parts and appropriate additional equipment such as tool holders, pulley block for lifting the rope or washstand to where they are needed



The Doppelmayr ropeway configurator



Custom design your own ropeway: Chairs, cabins and stations can all be configured to suit individual requirements.

Ropeway design – in terms of function and looks – and station architecture are becoming increasingly important for the operator's market positioning. It was with this in mind that the Doppelmayr ropeway configurator was developed. The new 3D tool provides a simple means of designing chairs, cabins and stations entirely to suit individual wishes, and even including elements of your corporate design. The application generates a very realistic image to help you visualize the finished result. Uploading your own background – ideally a typical seasonal view of the future location for the ropeway – will give you a life-like impression of how the individual components of the ropeway with your specific design and logo will harmonize with their sur-

roundings. The 3D 360° viewing option, the movement animation and the wide choice of colors make designing your ropeway a fun experience. The Doppelmayr ropeway configurator is a valuable tool with added value. This playful approach to a project boosts the thrill factor, and the generated data sheet with all the nec-





The ropeway configurator can be found on the Doppelmayr/Garaventa Group's website in the Doppelmayr Interactive section.

www.doppelmayr.com/en/doppelmayrinteraktiv/ropeway-configurator/

essary details on the choice of colors can be directly incorporated in the project planning.





A monument to celebrate welders

Sculpture	"The	Welder'
-----------	------	---------

Location	Doppelmayr's Hohe Brücke site, Wolfurt (AUT)
Created	Year end 2012 / beginning of 2013
Height	2.75 m
Weight	approx. 1.5 t
Working hours	approx. 150 h

Welder Manfred Hechenberger, based at Doppelmayr Wolfurt, has immortalized the welding profession by creating a statue. The work was produced using all the workpieces which Doppelmayr welders were required to produce during the course of their welding exams over a period of five years. "The Welder", which depicts a physically strong member of the core team, represents the moment of truth - the last ten seconds of the exam when the workpiece is destroyed to show whether the inside of the weld seam is perfect. Manfred Hechenberger presented his sculpture to Doppelmayr to mark his 45 years with the company. 13

The interactive world ropeway map

All projects completed by Doppelmayr/Garaventa worldwide between 2009 and 2013 are already online – and new ones are continually being added.



Anyone wishing to find out more about the ropeway projects in a specific area or how comparable requirements were resolved in other parts of the world need look no further. Because now there is a particularly transparent and impressive way of looking at the Doppelmayr/ Garaventa reference installations that have been built around the globe. In future, all the ropeways can be found on the "interactive world ropeway map" – at a glance or in detail. Online visitors can view photos and the technical specifications for each project such as ropeway type, carrier capacity, route length, vertical rise, speed and transport capacity. Application type, location/country, customer, year and the operator's website are also stated. The tool is available online in nine languages and features readily understandable icons for intuitive navigation. A targeted search is possible using the filter function with its various combination options.

Following the first phase of implementation, the online world map currently shows projects from a five-year period (2009–2013). All other projects will be added successively, including older installations, to provide a fully comprehensive overview. [1



Anton Schwendinger, board member of Doppelmayr Seilbahnen GmbH, presented the gold medal to the Austrian team in the Nordic Combined at the EYOF. Team from left to right: Samuel Mraz, Daniel Rieder, Philipp Kuttin and Mika Vermeulen.

EYOF: Winter sports booming like never before

Competitive skiing attracts millions of fans – as borne out by the visitor numbers. In January, young winter sports athletes from a dozen European nations took part in the 12th Winter European Youth Olympic Festival (EYOF) staged in Vorarlberg/Austria and Liechtenstein. Doppelmayr is a top partner to the Austrian Olympic Committee and can look back on a long-standing close collaboration with the ski resorts in the host regions. Board member Anton Schwendinger also stresses the importance of the EYOF: "An event which unites young people and winter sports is, by its very nature, of huge value to our customers and therefore to our company as well."

Imprint

Proprietor, editor and publisher: Doppelmayr Seilbahnen GmbH. Postfach 20. Rickenbacherstrasse 8-10, 6922 Wolfurt. Austria, dm@doppelmayr.com, www.doppelmayr.com; text and editing: Doppelmayr Seilbahnen GmbH in collaboration with ikp Vorarlberg GmbH, www.ikp.at; graphics and layout: Doppelmayr Seilbahnen GmbH in collaboration with KONZETT BRENNDÖRFER, www.agenturkb.com; photos: Doppelmayr, Fotolia, Shutterstock; printing: Thurnher, Rankweil; editorial policy pursuant to §25 Media Act: up-todate information for customers, partners and employees of the Doppelmayr/Garaventa Group; publication frequency: the magazine is published three times a year and distributed free of charge to customers and partners of the Doppelmayr Group, Reprinting only permitted with statement of source and explicit written authority; status: March 2015; errors and omissions excepted; General Terms and Conditions apply.

www.doppelmayr.com



Thank you!

Visions enable us to continually reach new heights. Ideas are what we hold on to. They enable us to grow beyond our own limits. Our achievements worldwide in 2014 were inspired by your visions and your ideas. That trust will also drive our future. And that's why we would like to say a big thank you.

www.doppelmayr.com



