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Pulsed-movement gondola Le Transit in Canada as transport link from the rail station to the 8-MGD Massif Express which takes passengers into the ski area. Page 12



What counts is reliability

CEO of the Val Cenise-Vanoise Daniel Touffait rates Doppelmayr highly. pp.4 - 5

New lifts in Switzerland's French-speaking region

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Special station design ensures unhurried loading and unloading. p.14

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6 lifts attract guests from throughout Turkey as well as Western Europe. p.26

Quality is paramount in China

Gondola lift in Jizushan and funicular in Nanshan. p.28

Doppelmayr builds Italy's first chair lift with blue bubbles in Livigno. p.22

 **Doppelmayr®**

Weibermahd combined lift: top comfort, high capacity

The Weibermahd combined lift in the Lech am Arlberg ski region offers users the choice between 8-seater comfort chairs and 10-passenger cabins. Two 8-seater bubble chairs with central, non-locking footrests are followed by one 10-seater gondola; seat heating is provided on all carriers.



The combined lift replaces the Weibermahd quad chairlift. It was built to resolve capacity bottlenecks. Now that capacity has been increased by "the equivalent of a good double chairlift" (to quote Michael Manhart, Managing Director of Skilifte Lech), guests no longer have to face waiting times. The gondolas are fitted with external ski holders. The top station has been moved a short distance uphill to facilitate access to the heart of the Lech ski region.



MD Michael Manhart is extremely pleased with the performance of the new combined lift.

Cornerstone for future development

The stations have been designed with the ultimate link-up to the Schröcken-Warth ski area in mind. When this development goes ahead, the gondolas will travel on further while the chairs will be directed back.

8/10-CGD Weibermahd

Transport capacity	3,900 PPH
Trip time	3.0 min
Speed	5.0 m/s
Chairs/cabins	30/20
Interval	8.0 s
Inclined length	770 m
Top station altitude	1,922 m
Vertical rise	137 m
Towers	10
Drive	Top
Tensioning	Bottom

The lift has been very well received by guests. Those who particularly like comfort take the gondolas; athletic skiers prefer the 8-seater chairs.



Demonstrating the power to innovate

In 2011, the Doppelmayr/Garaventa Group completed over 100 ropeway installations. Custom solutions calling for new ideas and technologies are at the heart of our projects. The development work we perform here ultimately benefits all our customers.

New, visionary projects are already in hand, such as the Cable Liner Shuttle in the San Francisco Bay Area, the Emirates Air Line 10-MGD in London, the technically sophisticated aerial tramway on the Mont Blanc massif or the aerial tramways up to the Stanserhorn (Switzerland) featuring the Cabrio® double-decker cabin – a world first.

The SAM trade fair 2012 in Grenoble gives us the opportunity to showcase our strengths. Our presentation will focus on

- technical innovations,
- highlighting our strengths in ropeway planning and installation, and
- demonstrating our reliable, fast-response after-sales service as well as the training facilities we provide for technical personnel both on site and at the Doppelmayr training centers.

Doppelmayr can supply all commonly known ropeway systems within a reasonable time frame and to the highest quality standards as well as delivering the requisite maintenance support. In the past few years, we have drawn on the Group's deep product portfolio to supply everything from the small chairlift or the comfort chairlift with bubbles and seat heating to the high-speed gondola lift or aerial tramway.

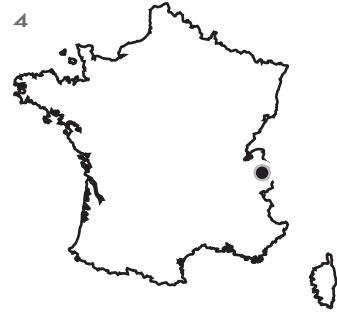
Building the best ropeways in the world is our goal. And combining the wishes and expectations of our customers with our particular competencies and capabilities is key to achieving that goal.



Michael Doppelmayr



“Lift operators want a reliable all-round service”



The ski region of Val Cenis-Vanoise is one of Doppelmayr’s major customers in France. Daniel Touffait is the region’s CEO. And he’s a definite Doppelmayr fan.

Since the end of 2008, the resorts of Val Cenis and Termignon-la-Vanoise have been linked up, creating the stunning new ski region Val Cenis Vanoise¹. Almost half of the 26 lifts are from Doppelmayr.

**640,000 ski passes
a year**

The guest figures for Val Cenis Vanoise are impressive: 640,000 ski pass holders a year, 85 percent of whom stay overnight in the region and most of them French nationals. Only 15 percent of guests come from abroad, largely from Belgium and Holland.

¹In Savoy on the Italian border. 55 ski trails with a total length of 125 km; altitudes ranging from 1,300 to 2,800 m.

As CEO Daniel Touffait (photo) sees it, a lift operator will expect a ropeway manufacturer to meet the following key criteria:

- They mustn’t be content to sell a lift, then sit back and consider the business relationship ended.
- They must provide support throughout the entire lifetime of the lift.

For Touffait, Doppelmayr meets all the requirements: “A Doppelmayr customer is part of the Doppelmayr family. And Doppelmayr is always there for you.” It goes without saying that the installations have to be reliable and be able to operate under extreme conditions. Here again,



Doppelmayr systems fit the bill: "They even start after icing up overnight!"

Iron hand in a velvet glove

Val Cenis also enjoys the benefit of being located close to the headquarters of Doppelmayr France: "We're just 25 kilometers away from Doppelmayr France, which gives us fast access to any spares or on-site support we might need." On-site training for the operating crew, particularly in the case of new installations, is another service which Daniel Touffait rates highly. And there's something else he really appreciates. "The Doppelmayr people always get straight on with the job with no hesitation. Doppelmayr France gives you Austrian work ethic delivered with French style. Touffait provides a vivid image to illustrate his point: "That's

like an iron hand in a velvet glove!"

Ropeways boost brand image

Good ropeways are one of the best selling points for a ski region: "A truly satisfied customer is one who looks forward to skiing downhill and doesn't even think about the ride while travelling on the lift. A good ropeway is one that I know is going to operate reliably at all times."

And Touffait adds: "All our new lifts enable us to respond quickly to any changes in capacity demand. Nowadays, we have up to 11,000 people on our slopes in any one hour, but we could transport up to 35,000 on an hourly basis."

Innovative and safety-conscious

The thing about Doppelmayr is that

they're not just innovative but also extremely safety-conscious. And here Touffait picks up on the efforts Doppelmayr has invested in child-friendly transport features as an example: "Take our detachable 6-seater chairlift 'SKIPPY', for instance - it's great for large families and ski schools."

With such a high level of satisfaction, it will come as no surprise to find that the resort has already completed "so many" projects with Doppelmayr and will continue to do so in the future. Fifteen lifts have been installed since 2000, 11 of them from Doppelmayr.

That, in Daniel Touffait's view, is the best proof of his great satisfaction with the ropeway manufacturer who "doesn't just do what we ask but actively works with us to identify the best solutions for our needs".



Val Cenis-Vanoise currently has 11 Doppelmayr lifts - all operating to the skiers' utmost satisfaction, as CEO Daniel Touffait assures us: 6-CLD Ramasse, 4-CLF Prénovel, 8/10-MGD Val Cenis le Haut, 6-CLD Arcelle, 6-CLD Turra, SL Madeleine, SL Buffa, 6-CLD Colomba, SL Pont Noir, SL Saint Pierre, SL Les Sablons.



Verbier: One does the job of two



Since winter 2011/12, two outmoded chairlifts in the resort of Verbier have made way for the modern detachable 6-seater chairlift Mayentset – Tête des Ruinettes.

Verbier lies at the very heart of the 4 Vallées ski region. Its highest point is Mont Fort at an altitude of 3,330 meters. This makes Verbier Switzerland's third-highest ski region after Zermatt and Saas-Fee.

The new 6-CLD-B replaces two old lifts dating back to 1970 and 1985. The locations of the bottom station of the 2-CLF Mayentset and the top station of the 2-CLF Combe 1 have been retained but the lift line and buildings are new.

Central footrest

The old stations and lift lines have been

removed. The chairs on the new lift have central footrests for each seat and are closed manually; the restraining bar is not locked and is fixed in position by the weight of the passengers' skis.

Better connection to French neighbors

As well as boosting the attractiveness of Verbier, the new lift marks the first stage in a new link-up between the ski trails in this part of the ski area and La Tzoumaz-Les Savoleyres. Other factors motivating the decision to build this lift were

- the desire for higher transport capacity and



Fresh boost through the new lift: On peak days, well over 10,000 skiers have been counted, which is more than the two replaced chairlifts could transport.

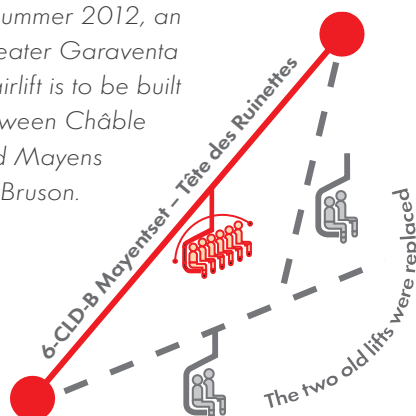
- the simultaneous need for top safety and optimal comfort.

Director Eric-A. Balet from Téléverbier SA explains: "In the mornings, this lift is in the shade and at that time of the day it's pretty chilly in the winter. That's why bubbles are a great asset for the passengers!"

Glass façade creates light, airy feel

With the approval of the local planning authorities (Commission cantonale des constructions), the side walls of the bottom station were refurbished and create an amazing impression of lightness thanks to their glass façades.

A first for Switzerland: 6-seater bubble with manually operated restraining bar, seat dividers and central footrests. This type of footrest is highly appreciated by skiers. Retrofitting is possible on various chair models. Verbier is a staunch Garaventa customer. In 2006, Garaventa installed the 6-CLD Attelas with almost the same length, and three years ago the 8-MGD Tzoumaz. In summer 2012, an 8-seater Garaventa chairlift is to be built between Châble and Mayens de Bruson.



Director Eric-A. Balet, Téléverbier SA: "Our experience with Garaventa has been excellent."

6-CLD-B Mayentset-Tête des Ruinettes

Transport capacity	2,400 PPH
Trip time	5.3 min
Speed	5.0 m/s
Chairs	48
Interval	9.0 s
Inclined length	640 m
Top station altitude	2,256 m
Vertical rise	520 m
Towers	13
Drive	Top
Tensioning	Bottom

User frequency doubled



The 6-CLD Les Crosets-Grand Conche went into operation this winter on the Swiss side of the cross-border ski area Port du Soleil.

The village Les Crosets lies in the Swiss canton of Valais, roughly an hour's drive from Geneva. Port du Soleil is one of the world's biggest ski regions.

The new chairlift replaces a double chairlift built in 1980 as well as a surface lift which was roughly half as long and ran parallel to it, providing access to a particularly family-friendly section of the slope.

Mid station provides access to family slope

The bottom station lies in a basin which also provides the starting point for two further lifts. The mid station with unloading on the uphill side facilitates access to a very family-friendly section of the lower slope; the upper section is steep and consequently popular with athletic skiers. The demolished chairlift also had a mid station, but the comparatively high transit speed in the station meant that unloading took a certain amount of practice.

Access to the lower slope is also provided by a surface lift running parallel to the new chairlift. A height-adjustable loading carpet in the bottom station



Director Raymond Monay, Télé Champéry-Crosets Portes du Soleil: "The new 6-seater chairlift has more than twice the capacity of the two old lifts put together. This means a significant boost for the attractiveness of the link between the ski areas of Les Crosets in Switzerland and Avoriaz on the French side of the mountain."

makes for easier boarding. The lift line has largely remained unchanged, whereas the bottom and top stations have been entirely rebuilt.

New comfort chairs

The lift is equipped with the new 6E98-FM chairs (central footrest system and seat dividers). The restraining bar is closed manually and is not locked. When children are carried it is important for the accompanying adult to place his/her feet correctly on the footrest; the restraining bar is then securely closed.

The new lift has been very well received. Télé Champéry-Crosets Portes du Soleil SA say the number of skiers has doubled.



Skier flows have also been reorganized with the new bottom station. The system for changing stations is based on the same principle as a traffic roundabout.

6-CLD Les Crosets – Grand Conche

Transport capacity	3,000 PPH
Trip time	5.3 min
Speed	5.0 m/s
Chairs	88
Interval	7.2 s
Inclined length	1,429 m
Top station altitude	2,132 m
Vertical rise	450 m
Towers	15
Drive	Top
Tensioning	Bottom





Diavolezza: Riding to the glacier in comfort

The time-honored aerial tramway from the Bernina Pass (2,093 m) up to the popular all-year tourist destination Diavolezza (2,978 m) has undergone a complete rebuild.

The aerial tramway first went into service in 1956 and several modernizations were carried out prior to the rebuild performed by Garaventa as general contractor in winter 2011/12.

Demanding site high up in the mountains

The tram continued in operation until November 29, 2011. At off-peak times, it was used to transport parts for the top terminal. Once the tram was closed, the top terminal could only be reached by snowcat or snowmobile.

The rebuilt tramway consists partly of entirely new components and partly of

components which have been serviced either at the Goldau plant or on site. Ensuring the perfect combination of old and new was no mean task.

Delivering the cabins also called for special measures. These arrived at the end of November following special permission to use the Julier Pass and the Bernina Pass.

The ski area is embedded in a veritable winter sports paradise: the region of Engadin-St. Moritz. This encompasses the four large ski areas of Corviglia/Piz Nair, Corvatsch, Diavolezza/Lagalb and Zuoz as well as five smaller areas and offers a combined total of 350 km of ski trails.



The generous windows on the 105-passenger cabins ensure an outstanding view of the four-thousanders Piz Palü, Bellavista and Piz Bernina. Three electrically operated sliding doors speed up loading and unloading operations. Passengers board simultaneously from the respective outer and central platforms: from the central platform through a double-leaf door and from the outer platform through two single-leaf doors. This prevents the crossing of passenger flows.

COO Adrian Jordan, Bergbahnen Engadin St. Moritz AG: "The work was particularly demanding as we had a winter construction site at an altitude of 3,000m and a very tight time frame. The tram was closed down from November 29, 2011 through to February 10, 2012. It reopened in time for the popular firm skiing in the spring."



105-ATW Bernina-Diavolezza

Transport capacity	630 PPH
Trip time	7.8 min
Speed max.	10 m/s
Cabins 105+1 P	2
Inclined length	3,574 m
Upper terminal platform	2,978 m
Vertical rise	882 m
Towers	4
Drive 720 kW nom.	Bottom
Haul rope counterweight 79 t	Top
Track rope counterweight 151 t per track	Bottom

Another Doppelmayr lift in Sauerland



The Winterberg ski lift circuit in Central Germany has a new chairlift from Doppelmayr.

Doppelmayr replaced Lift No. 7, the "Kleine Büre" T-bar, with a fixed-grip quad chairlift. The centrally positioned footrests sit between the passengers' legs and reliably prevent them from slipping off the seat. The restraining bars are closed manually.

**First time in Germany:
manual seat security**

This type of chair is being used in Germany for the first time. The low speed of 1.8 m/s and the assistance of a loading carpet give lift users ample time to take their places; upholstered seats and backrests provide additional comfort. The new top station gives skiers direct access to the ski slope – unlike the old surface lift where they first had to negotiate an uphill section.

The new No. 7 lift also connects an attractive slope on the edge of the

4-CLF Siebenerlift

Transport capacity	2,311 PPH
Trip time	2.7 min
Speed	1.8 m/s
Chairs	53
Interval	6.2 s
Inclined length	2,890 m
Top station altitude	747 m
Vertical rise	72 m
Towers	4
Drive	Top
Tensioning	Top

ski area to the main part of the ski lift network.

Winterberg is internationally famous as a venue for World Cup bobsleigh and luge competitions. Its qualities as a ski resort are perhaps less well known. There are 23 lifts and 32 ski trails with a total length of 17 kilometers – roughly half of these with floodlighting.



Winterberg is the biggest continuous ski area north of the River Main. It lies at altitudes between 640 m and 800 m and has huge potential: 20 million people live within a two-hour drive of the resort; convenient rail links are available from big cities like Dortmund, Essen and Frankfurt. On arrival, guests can take a bus from the rail station and get to the slopes in a matter of minutes. While the majority of visitors just come for the day, the number of those who stay overnight is steadily increasing.



Gondola lift on the banks of the Saint Lawrence

What do the world famous Cirque du Soleil and Le Massif ski resort in Quebec Province have in common? – Their co-founder, Daniel Gauthier.

Doppelmayr installed a pulsed-movement gondola lift to provide a convenient link service from the railroad station Petite-Rivière-Saint-François on the banks of the Saint Lawrence River to the Massif Express gondola (supplied by Doppelmayr; went into service in 2011) which takes passengers to the heart of the Canadian ski resort Le Massif. Operations on the pulsed-movement gondola are timed in line with train arrivals.

Link-up with the feeder gondola lift

The new gondola link went into service in January 2012 with four groups of carriers, each consisting of three 8-passenger cabins. At the Saint Lawrence River, space is in scant supply on the narrow strip of riverbank next to the rail station,

especially as the lift has to cross the highway and an access road at the base of the ski resort. This made it necessary to give the start of the ropeline a steep gradient of 43°.

Long tradition

The ski resort Le Massif de Charlevoix was initially created at the end of the 1970s. Back then, skiers were brought from the access road to the summit by snowmobile. School buses were introduced in the mid-1980s.

The first ropeways were a quad and a double chairlift from Doppelmayr, built in 1983 and 1984 respectively. Today, the resort has more than 53 downhill runs to offer and six lifts which can carry 11,630 passengers an hour. It has something for everyone, from novice to ski racer.

Spectacular UNESCO biosphere region

Daniel Gauthier acquired the resort in 2002. He is successively expanding it into an interactive eco-resort and places a major emphasis on protecting nature and the landscape. – Charlevoix has the status of a UNESCO biosphere region. In 2013, he is to start on the construction of accommodation near the bottom station. There have long been hotels on the mountain; these can also be reached by car.



The resort lies 770m above river level (36m) where the Saint Lawrence is as wide as a large lake.

MGFP 4x3x8 "Le Transit"

Transport capacity	635 PPH
Trip time	4.5 min
Speed	4.0 m/s
Cabins	12
Interval	2.3 min
Inclined length	263 m
Top station altitude	54 m
Vertical rise	45 m
Towers	6
Drive	Bottom
Tensioning	Top

Orange-tinted windows brighten the outlook



The new summit lift in the ski resort Königsleiten is Austria's first gondola with orange-tinted windows. It provides the ideal link to the Gerlos ski area.

The 8-MGD-O-S summit lift with heated seats replaces a quad chairlift built in 1989. The location of the completely new bottom station was retained, while the top station has been moved roughly 70m to the southwest. This now lies on the Königsleiten summit plateau which is also the end point for two other lifts.

Winter operation only

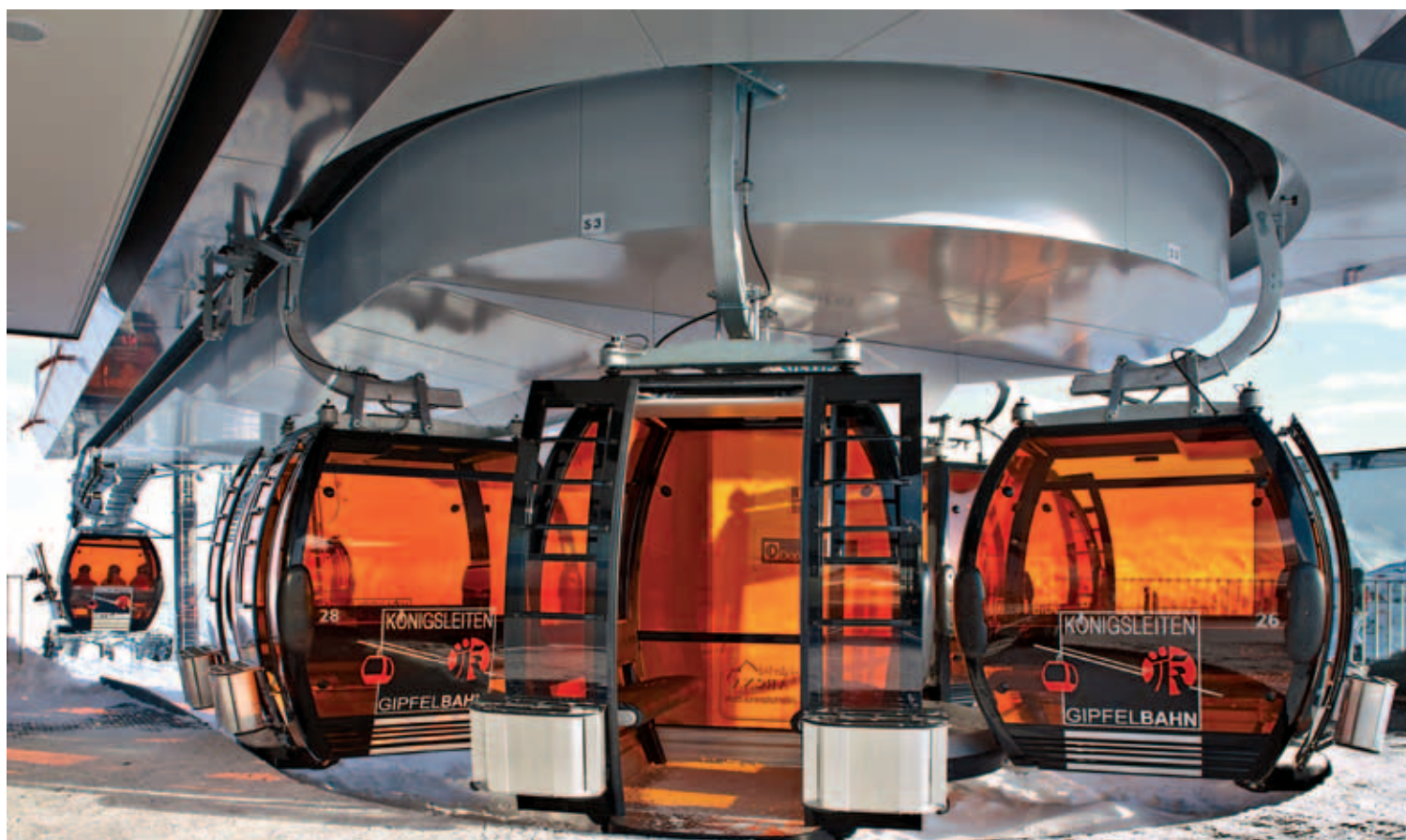
The gondola lift is designed to exclusively cater for winter sports; it can be reached via the Dorfbahn (8-MGD built in 2010) from Königsleiten or via a network of lifts and ski trails from Gerlos.

Königsleiten offers nine lifts and 38 km of ski trails, most of them with snowmaking facilities, at altitudes ranging from 1,700m

to 2,500m. The resort is integrated into the Zillertal Ski Arena (166km of ski trails, 49 lifts). Königsleiten belongs to the municipality of Wald im Pinzgau and lies at the western edge of Salzburg Province, right on the border with Tyrol which is reached via the Gerlos Pass (altitude 1,531 m).

8-MGD-O-S Gipfelbahn

Transport capacity	2,754 PPH
Trip time	3.6 min
Speed	6.0 m/s
Cabins	49
Interval	10.7 s
Inclined length	1,248 m
Towers	11
Top station altitude	2,303 m
Vertical rise	355 m
Drive	Top
Tensioning	Bottom



The new lift can carry almost 600 passengers an hour more than the chairlift it replaces. It also improves the connection with the Gerlos ski area.



10-MGD Gefrorene Wand: Maximum line capacity

The 10-passenger gondola lift Gefrorene Wand has gone into operation on the Hintertux Glacier and is equipped with heated seats.

The hallmark features of the 10-MGD-S Gefrorene Wand are high transport capacity, the fact that it utilizes almost 100% line capacity and the top comfort it offers for passengers.

Specially elongated bottom station

Design and organization make it possible: The bottom station is elongated to enable loading and unloading operations to take place exclusively on the long

side of the building. This arrangement allows the gondolas to transit the unloading area at a particularly slow speed (0.2 m/s instead of the usual 0.3 m/s).

Less haste when loading and unloading

More leisurely loading is also achieved by dispensing with external ski holders. These two measures, i.e. low boarding speed and not having to first stow skis



Construction sites in high mountain regions are never easy. But as Matthias Dengg explains, in this case "our many years of experience enabled us to accomplish all the work perfectly without a hitch". Photo: Klaus Dengg (right), Managing Director of Zillertaler Gletscherbahn, with Matthias Dengg (left).

and boards, mean that skiers and snowboarders can enter the cabins without haste and don't have to wait for the next carrier for fear of stumbling or becoming separated from friends and family members.

Very low noise

The soundproofing on the underground drive is highly effective and the dead-end parking facility is also below ground. Pro-

vision has already been made in the bottom station to house a glacier museum at a later date.

The top station has a balcony-style terrace on three sides. This provides magnificent views of the neighboring peaks of the Gefrorene Wand and towering above them all the Olperer (3,476 m) as well as the Großer Kaserer, Kleiner Kaserer and many other three-thousanders in the Tuxertal and Zillertal.

10-MGD-S Gefrorene Wand

Transport capacity	2,800 PPH
Trip time	4.9 min
Speed	6.0 m/s
Cabins	46
Interval	12.9 s
Inclined length	1,257 m
Top station altitude	3,033 m
Vertical rise	425 m
Towers	10
Drive	Bottom
Tensioning	Bottom



It is your trust
that drives us



We would like to express our gratitude to all our customers worldwide for the outstanding and pleasant cooperation. Only professional partners like you allow us to yield peak performances. We see the trust you set in our quality and our productive capacity as an obligation, challenge and motivation for the future.



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Masnerkopf lift: Smart chair solution



The new Masnerkopf lift is a comfortable 6-seater chairlift in the Serfaus-Fiss-Ladis ski region with heated seats, child-friendly locking system and bubbles.

The Masnerkopf lift replaces a surface lift built in 1980; the lift line and station locations are new. The bottom station is adjacent to the Arrezjoch lift, a 6-CLD-B from Doppelmayr. The available downhill runs and the slope area with snowmaking facilities were extended to coincide with the opening of the new lift.

A step up for the entire winter sports region

Construction was not straightforward as the lift lies right at the end of the ski area and the one-hour journey by mountain

track to reach it proved particularly arduous for trucks in snow and wet weather.

The winter sports region encompassing the three villages Serfaus-Fiss-Ladis is located on a high plateau above the Inn Valley in Tyrol, with an impressive backdrop consisting of the mighty three-thousanders belonging to the Samnaun mountain range and the Ötztal Alps. The area offers over 204 kilometers of ski trails ranging in altitudes from 1,200m to 2,800m, three-quarters of them covered by snowmaking facilities. The region's 70 lifts have a combined transport capacity of 87,250 passengers an hour.



The top station at an altitude of 2,820m was partly built into the mountain to minimize the visual impact on the landscape.



The bottom station is located at an intersection for skier traffic.



The Masnerkopf lift in Serfaus is the first to be equipped with the new FMV footrest system from Doppelmayr. The chairs feature seat dividers and a central footrest for each seat. The restraining bar is manually operated and locks when properly closed. The lock is automatically deactivated in the top station; only then is it possible to open the restraining bar, which again is performed manually. There is no monitoring of the chair locking operation.

6-CLD-B-S Masnerkopfbahn

Transport capacity	3,000 PPH
Trip time	5.5 min
Speed	5.0 m/s
Chairs	91
Interval	7.2 s
Inclined length	1,544 m
Towers	16
Top station altitude	2,820 m
Vertical rise	446 m
Tensioning	Bottom
Drive	Top



The Monte Rosa ride experience

Since winter 2011/12, a cutting-edge installation has been operating in the ski and hiking region Cervinia: the new Laghi Cime Bianche - Plateau Rosa aerial tramway.

The tram has a long tradition. It was originally built in 1939 and has undergone several modernizations in the meantime. In 2011, Doppelmayr Italia carried out a general overhaul as part of the 20-year scheduled maintenance.

Riding in one of the two cabins with windows that reach down to the floor is like being on a well-protected terrace and gliding into the heart of the Alps. You get to enjoy a stunningly beautiful, description-defying view of the Monte Rosa

massif and the Matterhorn which looks close enough to touch. Comfortable flip-up seats are fitted along the walls of the cabin. A video camera installed underneath the cabin transmits images to a screen in the interior which is also used to provide information on weather and ski trails, events, etc: truly spectacular!

Business as usual during rebuild

As the tram operator, Cervino S.p.A.,



For the onlooker, the new cabins are the most spectacular feature of the almost entirely rebuilt tram up to Plateau Rosa. In addition to the security of traveling on an ultra-modern tram, passengers can enjoy the exhilarating panoramic ride experience which includes a view of the Matterhorn through the huge cabin windows.



Director Ing. Giorgio Pession, Cervino S.p.A.: "We are confident that we shall be seeing significant growth in passenger numbers, which currently stand at half a million. The technical innovations and the enhanced comfort and capacity, which have been the result of the fruitful collaboration with Doppelmayr Italia, are bound to contribute to that rise! I have to say that we are extremely pleased with the exemplary commitment and meticulous work

carried out by Doppelmayr." – The installation crews were confronted with huge challenges. Special transports were necessary for the hangers because of their exceptional size. The cabins had to be transported from Breuil-Cervinia to the base terminal on snow-covered roads. – If anything had gone wrong, the operating company would have lost the winter season 2011/12. Doppelmayr Italia was responsible for the tramway technology; Cervino S.p.A. took care of the building refurbishments.



did not want to lose either a winter or a summer season, the "new construction" (as viewed by the authorities) had to be undertaken in stages.

In the fall of 2010, maintenance was carried out on the drive and return bull wheels and carriages. The drive and electrical installations were replaced in the winter season 2010/11. The old cabins continued in operation during the summer but were replaced in the fall once the stations had been modi-

fied to accommodate the new ones. The ski region Breuil-Cervinia-Valtournenche Zermatt ranks among the biggest in the Alps. It encompasses three valleys in Italy and Switzerland, from the Klein Matterhorn (3,883 m) down to Valtournenche (1,524 m). Here you can ski all day long without ever repeating a single route. There are 25 lifts in Breuil-Cervinia and Valtournenche plus 34 in Zermatt. The lifts have a combined hourly capacity of 140,000 passengers.

125-ATW Laghi Cime Bianche – Plateau Rosa

Transport capacity	1,250 PPH
Trip time	4.5 min
Speed	12.0 m/s
Carriers	2
Inclined length	2,229 m
Upper terminal altitude	3,458 m
Vertical rise	645 m
Towers	0
Drive	Bottom
Track ropes	Fixed anchoring
Haul rope counterweight	Top
Rescue rope counterweight	Top



Livigno: Blue bubbles – great mood

Livigno village center now boasts a new attraction. The new 6-seater chairlift with blue bubbles is ensuring an exhilarant mood among skiers.

The Botarél chairlift replaces a 400-meter-long surface lift. The lift line has been doubled in length, while the lower section remains unchanged.

*Manual closing,
automatic locking*

The restraining bars on the new lift are closed manually and subsequently lock

automatically. To ensure a bigger ski slope at the unloading point, there is no separate building to house the carriers at the top station. These are parked instead in the stations.

Old lift relocated

The old surface lift has not been dispensed with but moved, following an overhaul by Doppelmayr Italia, and is now operating on a practice slope. Both chairlift and surface lift are particularly popular among the less practiced skiers.

*Tourism is
a major economic factor*

The municipality of Livigno lies in the Rhaetian Alps in the Province of Sondrio, the most northerly in the Lombardy region and close to the Swiss border. Tourism is crucial to the local economy. The ski area has 33 lifts and ranges from 1,800 m to 3,000 m in altitude.

6-CLD Botarél – Tea dal Plan

Transport capacity	2,700 PPH
Trip time	3.0 min
Speed	4.5 m/s
Chairs	53
Interval	8.0 s
Inclined length	802 m
Top station altitude	2,042 m
Vertical rise	224 m
Towers	9
Drive	Top
Tensioning	Bottom



Doppelmayr built Italy's first chairlift with blue bubbles in Livigno. The chairlift lies between two gondolas, providing skiers who prefer not to remove their skis with an alternative means of reaching the sunny slopes of Vetta Blesaccia.

Giant Mountains: Fast trip on the “Dutchman”



In Karpacz, Lower Silesian Voivodeship (Poland), the 6-CLD-B-S-O Bialy Jar has gone into service.

The lift soon acquired the nickname “Dutchman” because of its orange bubbles. It provides a fast trip from the center of Karpacz (population 11,000) up to Mount Malà Kopa (1,345 m). The lift is operated by Winterpol, which runs the same type of lift as well as three other ropeways in the spa resort of Zieleniec, 100 kilometers away.



Dr. Jozef Kaminski, owner of the operating company Winterpol: “The lift has shown to be very popular. The technology is excellent and the lift runs 13 hours a day. Any routine maintenance is carried out at night.”

New chairlift enjoys great popularity

The “Dutchman” provides access to three ski trails on Mount Śnieżka on the edge of the Karkonosze National Park and – thanks to its comfortable loading and unloading, fast ride and weather protection – enjoys great popularity in this ski area with nine lifts and almost eight kilometers of ski trails. The lift is used by 70 percent of skiers on a regular basis. Owner Jozef Kaminski also expects to see high visitor numbers in the summer season – over 50 percent of winter levels – with guests coming from both Poland and the Czech Republic.

6-CLD-B-S-O Bialy Jar

Transport capacity	3,000 PPH
Trip time	2.3 min
Speed	5.0 m/s
Carriers	39
Interval	7.2 s
Inclined length	579 m
Top station altitude	798 m
Vertical rise	80 m
Towers	7
Drive	Bottom
Tensioning	Bottom



From the top station, a hiking track leads up to Mount Śnieżka (Schneekoppe), at 1,602 meters the highest peak in the Giant Mountains. The chairlift is also equipped to carry mountain bikes and wheelchairs.



Serbia expands its ski resorts

The Serbian ski resort Stara Planina is being expanded. As part of this project, Doppelmayr supplied the 8-MGD Jabučko Ravnište and the 4-CLF Babin Zub¹ in 2011.

The ski resort Stara Planina/Babin Zub is roughly a one and a half hour drive northeast of Niš in the Stara Planina National Park and not far from the Bulgarian border.

Up and coming ski area

Work on extending the ski trails and ropeways has been ongoing since 2011 under the overall responsibility of Serbia's state-run company JP Skijališta Srbije (Ski Resorts of Serbia). Another government organization is in charge of expanding the road infrastructure and coordinating the major investments in wellness and congress hotels. In the case of the latter,

the company has succeeded in attracting strong foreign investors. The first of four hotels for the new ski center has already been completed and is run by the Spanish hotel chains HG Hotels and Sol Melia.

The skiable terrain lies at altitudes ranging from 1,200m to 1,800m. The striking feature of the landscape is the 1,789m Babin Zub Mountain with its bizarrely shaped rocky peak (which explains its name - "Babin Zub" means grandmother's tooth).

Serbia's first gondola lift

The two new lifts have raised the existing transport capacity two and a half fold. The previous 2.3 kilometers of ski trails were also increased to 12 kilometers during the course of the lift construction.

Doppelmayr acted as general contractor for the project. The construction work was awarded to Serbian firms with a successful track record from previous occasions and began in June 2011; installation of the lifts was completed by the end of October.



8-MGD Jabučko Ravnište (bottom photo). Transport capacity and ski trails are to be expanded over the next few years. 4-CLF Babin Zub (top).

		8-MGD Jabučko Ravnište	4-CLF Babin Zub
Transport capacity	PPH	2,445	2,399
Trip time	min	4.0	6.3
Speed	m/s	6.0	2.6
Interval	s	11.8	6.0
Inclined length	m	1,125	985
Top station altitude	m	1,667	1,762
Vertical rise	m	186	183
Carriers		40	128
Towers		7	10
Drive		Bottom	Top
Tensioning		Bottom	Bottom

¹ In 2006, Doppelmayr installed a 4-CLF and a T-bar lift with a total hourly capacity of 2,600 PPH; the ski resort also has an old ski tow.



New in Azerbaijan

Azerbaijan's first winter sports center is to be equipped with Doppelmayr lifts.

A brand-new all-year leisure complex incorporating a ski resort of superlatives is being created on Mount Shahdag in Northern Azerbaijan, which is part of the Greater Caucasus Mountain Range and rises above 4,000 meters. The ski area lies between altitudes of 1,400m and 2,300m in the Shahdag National Park, less than 30 km from the regional capital Kusar. Construction works include water, power and gas lines, a heating station, roads and hotels, snowmaking networks, ski trails and lifts.

8 lifts and one loading carpet from Doppelmayr

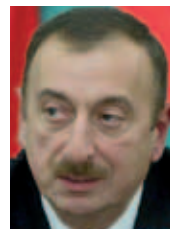
In view of the scale of this project, it was split into several stages. Construction phase 1 has been completed; Doppelmayr first installed Lift No. 2, a detach-

able quad chairlift with bubbles. One hotel is already operating. At the inauguration of this chairlift in February 2011, Azerbaijan's President Ilham Alijev – who is also an excellent skier – declared the official start of phase 2.

Doppelmayr has been commissioned to supply three more lifts on a turnkey basis in 2012; the customer, which is the Ministry of Culture and Tourism, will merely be responsible for the foundation works. By 2013, another five Doppelmayr ropeways are to be built along with three additional ski trails with snowmaking facilities, a 4-star hotel, a wellness hotel, an aqua park and vacation apartments. Amenities such as tennis, football and basketball pitches, hiking tracks and a camping site are to be added at a later date. The major focus will nonetheless be on winter sports.



The first of eight lifts ordered from Doppelmayr went into operation in 2011. The resort is set to attract visitors first and foremost from Baku, Russia and Western Europe.



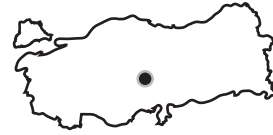
President Ilham Alijev inaugurated the construction phase 2 of the new tourist complex at the foot of Mount Shahdag (altitude

over 4,000 m) and then rode up the mountain on the new chairlift to try out the new ski trail for himself.

4-CLD-B Shahdag Lift 2

Transport capacity	2,400 PPH
Trip time	3.6 min
Speed	5.0 m/s
Chairs	71
Interval	6.0 s
Inclined length	984 m
Top station altitude	1,676 m
Vertical rise	241 m
Towers	8
Drive	Bottom
Tensioning	Bottom

6 Doppelmayr lifts for the Anatolian tiger



Turkey's biggest ski area is being created in Kayseri, one of the cities ranked as "Anatolian tigers".

Since winter 2011, the Erciyes ski area, an extinct volcano rising to almost 4,000m, has been well up to par with other European resorts. Previously a small ski center with two fixed-grip chairlifts and two surface lifts, Erciyes has undergone extensive expansion. Doppelmayr acted as general contractor and installed a gondola lift, two detachable and three fixed-grip chairlifts. But plans do not stop there. The ultimate aim is to create the biggest ski region in Turkey.

Large catchment area and...

Everything is now set. First, Kayseri is a rapidly developing industrial, commercial and university city with a catchment area of 1 million people.

Second, the region enjoys a long tradition of summer and culture tourism, and

already offers a good hotel infrastructure.

... guests from home and abroad

In addition, Kayseri is conveniently situated in terms of transport routes. You can take an early plane from Amsterdam and be on the slopes by midday. Dutch, Russian and Arab visitors have already discovered Kayseri. And, needless to say, so have the Turks, who travel from Ankara as well as from other much closer cities.

Rapid enhancement of ski trails and resort profile

Erciyes currently has nine kilometers of ski trails; once the ambitious plans become reality the figure will be 160 kilometers. By then, 21 lifts are to carry 34,000 skiers up the mountain on an hourly basis.



		8-MGD Oksüzler Yurdu	6-CLD-B Sag Sakallik	4-CLD-B Üst Istasyon	4-CLF Yalcin	4-CLF Karakulak Tepe	4-CLF Sirt
Transport capacity	PPH	2,400	2,000	1,800	1,502	1,200	1,500
Trip time	min	7.8	7.8	6.5	6.5	11.5	10.4
Speed	m/s	6.0	5.0	5.0	2.3	2.3	2.3
Carriers		78	86	97	83	116	131
Interval	s	12.0	10.8	8.0	9.6	12.0	9.6
Inclined length	m	2,495	2,225	1,853	902	1,589	1,434
Top station altitude	m	2,636	2,939	2,607	2,597	2,640	2,597
Vertical rise	m	548	510	341	167	197	331
Towers		12	17	14	10	15	14
Drive		Top	Bottom	Bottom	Bottom	Top	Bottom
Tensioning		Bottom	Bottom	Bottom	Bottom	Bottom	Bottom

And the ultimate prize would be for Kayseri to host the 2022 Winter Olympics. Construction work on the lifts was not

easy as the weather conditions on Mount Erciyes can change very rapidly. At times, the crew had to operate in driving snow

– but were soon compensated by cloudless skies and an entirely idyllic mountain landscape.



8-MGD Oksüzler Yurdu



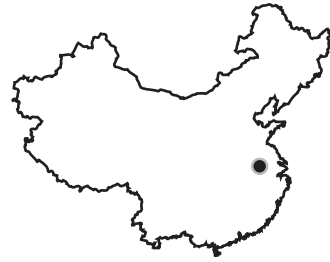
VIP visit:
Prime
Minister
Recep
Tayyip
Erdogan
(left

above); next to him, Mayor Mehmet Özhasseki and Minister Taner Yıldız; right above, MP Yasar Kasrayel with top regional officials Mustafa Elitas and Ömer Dengiz from the governing party AKP.



4-CLD-B Üst İstasyon

New funicular in Nanshan: Top quality is a must



Garaventa has built a new, high-performance funicular railway in the tourist region of Nanshan Zhuhai, Southern China.

Nanshan Zhuhai lies in the mountainous south of Jiangsu Province, 90 km east of the provincial capital Nanjing. Built on either side of the Yangtze River, which is up to 1.5 kilometers wide at this point, Nanjing is one of the oldest cities in China and ranks behind Shanghai as the second-biggest agglomeration in Southern China with a population of 7.5 million inhabitants. The strictly protected nature reserve Nanshan Zhuhai can be reached by a municipal bus service which runs every 15 minutes; visitors have to pay an admission charge.

2-60 FUL Nanshan

Transport capacity	1,040 PPH
Trip time	2.3 min
Speed	6.0 m/s
2 Cabins	60 P each
Interval	3.5 min
Inclined length	545 m
Vertical rise	163 m
Top station altitude	266 m
Drive	Top
Tensioning	Bottom
Haul rope ø	27 mm
Counter rope ø	17 mm



Nanshan is famous for its bamboo forests, the panda zoo, its pagodas and a mighty statue of Shou Xing, the god of longevity, whose body is the mountain and whose head is a 13-meter-high sculpture. Another popular destination for visitors is the lovingly reconstructed ancient Chinese village next to the top terminal of the new funicular, which provides an outstanding viewing point for the magnificent scenery. The number of tourists in Nanshan is constantly increasing and the trend is set to continue. For this reason, the operators wanted to create a new attraction with the funicular. The Chinese customer insisted on top quality – in keeping with the upscale ambience of the new 5-star hotel near the base station.

China: Gondola lift instead of rocky pathway



An 8-passenger gondola lift from Doppelmayr has recently been installed in Jizushan, Binchuan County, Yunnan Province. It replaces a fixed-grip 2-passenger gondola which had far too little capacity to cope with the crowds of pilgrims and tourists who visit the area.

Jizushan is one of five holy mountains for Chinese Buddhists. Large numbers of monks from throughout China make the pilgrimage to this sacred site, in some cases completing the "three steps, one bow" ritual which involves kneeling or full prostration after every third step. There are numerous temples along the route, the ultimate destination being the Jinding Temple which lies below the 3,240 m peak.

In recent years, growing numbers of tourists have flocked to the region which is famous for its bizarre rock formations, dark forests and magnificent views.

8-MGD Jizushan

Transport capacity	1,200 PPH
Trip time	5.0 min
Speed	5.0 m/s
Cabins	24
Interval	24.0 s
Inclined length	1,198 m
Vertical rise	474.5 m
Towers	7
Top station altitude	3,201 m
Drive	Bottom
Tensioning	Top



Those wishing to avoid taking the thousands of stone steps to make the ascent can now save themselves the particularly arduous top third of the route by riding on the new Doppelmayr gondola lift; it replaces an old 2-passenger gondola.

High tech and comfort take off in a big way

CWA®
Constructions



www.cwa.ch



**Premium entertainment
above the clouds –
high-tech multimedia
equipment in CWA's
ropeway cabins provides
top-flight infotainment.**

Cabin manufacturer CWA partnered with PKE to develop a complete infotainment solution that offers cutting-edge electronics (MP3 player, LCD monitor, touchscreen PC and sound system). An unconventional dimmable lighting concept creates atmosphere, and an air-conditioning or ventilation system which is automatically adjusted to suit environmental conditions rounds off the package.

A central content server provides a continuous feed to the cabin touchscreens. Transmission is handled by a wireless LAN with multicast.

To maintain a stable network connection in spite of the fact that the cabins are constantly in motion as well as swaying under certain conditions, each cabin is

fitted with two antennae, one pointing in the direction of travel and the other in the opposite direction. This makes it possible to maintain a stable six to eight megabit connection over the entire span and is also sufficient for broadcasting live HDTV pictures.

In the past, ropeway cabins lacked a suitable power supply for such extensive electronic systems. But now CWA has developed an elegant and reliable solution for providing the power required in the cabin: supercaps. These are extremely efficient supercapacitors which are installed on the cabin roof and are recharged via a power rail whenever the cabin passes through a station. Compared with conventional batteries, supercaps require no maintenance and last much longer.



Components: GPS, WLAN, PC, surveillance camera, LCD monitor, intercom, power supply, air-conditioning, ventilation, lighting, AUDIO

The multimedia system has been in operation in Lenzerheide since the 2010/11 winter season and informs skiers and snowboarders on their way up the mountain about current attractions and events along with the offers available in the region.

At Germany's 2011 Federal Horticultural Show in Koblenz, the new ZETA cabins from CWA were also equipped with a high-performance multimedia system. As a special security feature, 360° dome video surveillance cameras were also installed.

London is gearing up for the Olympic Games; ultramodern CWA cabins will then be gliding across the Thames between the Greenwich Peninsula and the Royal Victoria Dock.

Once again, the best in multimedia technology will be integrated into the cabins. As in Lenzerheide and Koblenz, CWA implemented the intercom system to make emergency calls and public announcements, as well as a central operator workstation in the control room, from where the entire system can be controlled via a graphical user interface.

The power control system specially developed by CWA can provide three hours of emergency power when necessary. The components are standardized, allowing the customer to pick and choose. The type of power supply is then selected to suit the equipment involved.

CWA is the system supplier of choice – especially when high tech and comfort really take off.

Huge investment boost

Doppelmayr has invested significantly in new plant and equipment. The objective is to

- ensure top product quality,
- reduce production stoppages due to machine downtime and consequently safeguard fast and continuous deliveries to customers,
- shorten lead times,
- manufacture crucial components in-house in order to reduce exposure to supply shortages.



Welding robot (above) • 46 m line for handling individual components and series manufacture (photo below)



Flight across the Thames

Doppelmayr has completed the 10-passenger gondola lift which will be known as the "Emirates Air Line". Final testing is scheduled for May. The lift connects the Greenwich Peninsula and the Royal Victoria Dock, crossing the Thames at a height of 55 m, and will be integrated into the public transport network. The futuristic design of its towers will make the lift a striking feature of the Royal Docks skyline. For visitors to the nearby venues for the 2012 Olympic Games, it will symbolize the UK's role as a global leader in technological innovation.



Skippy at the zoo



Hi kids! Here I am again - and this time I'm in Sweden. Kolmården to be exact. It's the biggest wildlife park in Northern Europe and they have an 8-passenger gondola that rides through the zoo. That takes you right up close to wild animals from all over the world, like lions, bears and giraffes. And you can do it all without cars, traffic jams and fumes. Weehee, I love going on safari!

