



5-COUNTRY SPECIAL



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MAG. CHRISTIAN AMTMANN

Executive Editor

EDITORIAL

DEAR READERS.

In 2013 we took the decision to produce a special issue for the Czech Republic, Slovakia, Bulgaria, Romania and Poland, and we are delighted to see that the response to the ISR Five Countries Special is as keen as ever it was. For us that is proof of the considerable potential that these markets have today. In the context of our five countries, the term “markets of the future” is still used, although the last few years have seen a rapid pace of development, with the creation of state-of-the-art winter sports resorts that compare with the ski areas to be found in Austria and Switzerland.

With the ISR Five Countries Special, the team at ISR is pursuing the goal of providing resort managers in all five countries and all mountain technology suppliers with an exclusive information platform.

The coverage in this number includes new ropeway projects in Poland and Slovakia as well as an article by the children’s marketing expert Ursula Weixlbaumer-Norz. She offers convincing tips on how to motivate kids – the visitors of tomorrow – to choose a certain resort.

The last winter clearly showed that snowmaking can save what would otherwise be a disastrous season. This issue of ISR contains useful information on the subject of snowmaking and the snow grooming that logically goes with it.

More and more mountain resorts are investing in various attractions in support of year-round tourism. That is also one of the topics in this issue of our ISR Five Countries Special.

Finally, I should once again like to thank our international correspondents Roman Gric and Radim Polcer, whose thoroughly researched reports make a significant contribution to the transfer of knowhow in the ropeway industry.

Hoping you enjoy this issue of ISR and looking forward to your feedback,

Christian Amtmann
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New ropeways in Poland

ISR REPORT In March ISR paid a visit to a number of Polish ski areas that have recently invested in new ropeway installations.



The Beskid Sport Arena in Szczyrk has a Tatalift ropeway and lifts, a Tatalift summer mountain coaster and Supersnow snowmaking installations.

PREMIERE FOR TATALIFT IN SZCZYRK

Right on time for the start of the winter season on 23 December 2016, the Slovak ropeway manufacturer Tatalift from Kežmarok completed a new detachable 6-seater chairlift with protective canopies for the Beskid

Sport Arena near the Polish town of Szczyrk. The detachable grip system employed on this new ropeway in the SLO 6 series is based on the Wopfner grip. With the new design solution selected for the terminals and the elegant revamped design of the chairs, the installation is a real eye-catcher.

In addition to the chairs, the conveyor system in the terminals and the electrical equipment are all new designs.

The bottom terminal of the six-pack is integrated in a building with a restaurant, ski rental and ski school, all of which opened on the same day. The upper terminal, on the other hand, is an open design with a modern enclosure. The ropeway also operates in summer.

In addition to the 6-seater chairlift, the Beskid Sport Arena has opened other installations supplied by Tatalift in the last few years, namely a Tatrabob summer mountain coaster, two surface lifts and a conveyor lift for children. That gives the ski area a total uphill transport capacity of 5000 pph.

The snowmaking installation was supplied by Supersnow. The Polish company also installed their first Snow Box there, which is designed to produce snow at an ambient temperature of up to +3°C (110 m³ snow in 24 hours). In the last few years, the operating company has invested some 20 million euros in this new ski area.



New-look upper terminal of the Tatalift 6-seater chairlift in Szczyrk



The 250 kW drive of the Beskid Sport Arena's 6-seater chairlift in Szczyrk is located in the bottom station.

RUSIN-SKI IN BUKOWINA TATRZAŃSKA

Thanks to its ideal location in the Podhale Region, this family ski area 17 km east of Zakopane offers very good snow conditions until well into spring. Following the con-

struction of a fixed-grip quad chairlift in 2008 (pre-owned Von Roll installation from Mijoux in France), a new chairlift was built by Bartholet of Flums, Switzerland in 2014. This is a six-pack with canopies and chairs with heated seats



The Porsche Design Studio chairs with heated seats can carry up to 2,790 pph at Rusin-ski.



The comfortable 6-seater chairs at Rusin-ski with the ski area logo tastefully placed on the padded backrests



The bottom station of the Bartholet 6-seater chairlift at Rusin-ski is a deflection station with a low enclosure.

designed by Porsche Design Studio. With a transport capacity of almost 2,800 pph, there are no queues for the ride up the mountain even in the high season. Evening skiing is also a popular option.

Apart from the two chairlifts, Rusin-ski also operates two surface lifts and a conveyor lift. In summer the older quad chairlift is mainly used to transport mountain bikes. Development of the ski area was co-funded by the European Union.

TECHNICAL DATA

Beskid 6-seater chairlift, Szczyrk

(with heated seats and protective canopies)

| | |
|------------------------------|-----------------|
| Elevation of bottom terminal | 596 m |
| Elevation of upper terminal | 834 m |
| Line length | 749 m |
| Vertical height | 238 m |
| No. of towers | 8 |
| Haul rope diameter | 43 mm |
| Drive | bottom terminal |
| Tensioning system | bottom terminal |
| Rated output | 250 kW |
| No. of chairs | 32 |
| Chair interval | 10.2 s |
| Line speed | 5.0 m/s |
| Transit time | 2.5 min |
| Rated capacity | 2,120 pph |
| Year of commissioning | 2016 |

Contractors

| | |
|---------------------|---------------------|
| Ropeway engineering | Tatralift |
| Controls | Easy Control Morava |
| Rope manufacturer | Redaelli |

TECHNICAL DATA

Rusiń Ski 6-seater chairlift, Bukowina Tatrzańska

(with heated seats and protective canopies)

| | |
|------------------------------|-----------------|
| Elevation of bottom terminal | 772 m |
| Elevation of upper terminal | 948 m |
| Line length | 961 m |
| Vertical height | 176 m |
| No. of towers | 9 |
| Haul rope diameter | 46 mm |
| Drive | top terminal |
| Tensioning system | bottom terminal |
| Rated output | 373 kW |
| No. of chairs | 54 |
| Chair interval | 7.8 s |
| Line speed | 5.0 m/s |
| Transit time | 3.3 min |
| Rated capacity | 2,790 pph |
| Year of commissioning | 2014 |

Contractors

| | |
|----------------------------------|----------|
| Ropeway engineering and controls | BMF |
| Rope manufacturer | Redaelli |

PHOTOS: R. GRIC (3)

CZARNY GROŃ

The first surface lifts were installed in Czarny Groń in the Silesian Beskids in 1982. The ski area is conveniently located about an hour's drive from the cities of Katowice and Cracow, and that has been a factor in the popularity of Czarny Groń from the start. Following a change of ownership in 2005, a big investment program was launched.

First of all a powerful snowmaking system was installed. Today a

snowmaking pond with a capacity of 12,000 cu.m. supplies water to about twenty Technoalpin snow-guns.

The ski area also has two Doppelmayr chairlifts, which intersect on

a shared tower. Tower number 6 on the Czarny Groń 1 fixed-grip quad chairlift serves as tower number 4 on the Czarny Groń Express detachable 6-seater chairlift. There is also a link between the controls for

TECHNICAL DATA

Czarny Groń 1 4-seater chairlift, Rzyki

(fixed-grip chairlift)

| | |
|------------------------------|-----------------|
| Elevation of bottom terminal | 596 m |
| Elevation of upper terminal | 748 m |
| Line length | 568 m |
| Vertical height | 152 m |
| No. of towers | 7 |
| Haul rope diameter | 36 mm |
| Drive | bottom terminal |
| Tensioning system | bottom terminal |
| Rated output | 125 kW |
| No. of chairs | 74 |
| Chair interval | 6 s |
| Line speed | 2.6 m/s |
| Transit time | 3.6 min |
| Rated capacity | 2,383 pph |
| Year of commissioning | 2015 |

Contractors

| | |
|----------------------------------|------------|
| Ropeway engineering and controls | Doppelmayr |
| Rope manufacturer | Fatzer |

TECHNICAL DATA

Czarny Groń Express 6-seater chairlift, Rzyki

(with orange canopies and terminal chair parking)

| | |
|------------------------------|-----------------|
| Elevation of bottom terminal | 694 m |
| Elevation of upper terminal | 802 m |
| Line length | 599 m |
| Vertical height | 108 m |
| No. of towers | 6 |
| Haul rope diameter | 43 mm |
| Drive | bottom terminal |
| Tensioning system | bottom terminal |
| Rated output | 204 kW |
| No. of chairs | 40 |
| Chair interval | 7.2 s |
| Line speed | 5.0 m/s |
| Transit time | 2.4 min |
| Rated capacity | 3,000 pph |
| Year of commissioning | 2014 |

Contractors

| | |
|----------------------------------|--------------|
| Ropeway engineering and controls | Doppelmayr |
| Rope manufacturer | Teufelberger |



90° loading carpet solution for the Doppelmayr 6-seater chairlift at Czarny Groń



In the Czarny Groń Ski Area, the fixed-grip four-seater chairlift and the detachable 6-seater chairlift with protective canopies intersect on a shared tower near the upper terminal of the quad.



The intersection of the Czarny Groń 1 fixed-grip quad chairlift and the Czarny Groń Express detachable 6-seater chairlift on a shared tower.

PHOTOS: R. GRIC (2), R. POLCER (1)

the two ropeways to take account of any deropement. Such a configuration is unique for Poland's ropeways.

The trails in this family ski area – one red and three blue ones – are open from 8 a.m. to 4 p.m. for day-time skiing. Then they are closed for grooming and reopened as illuminated pistes for evening skiing from 6 to 10 p.m. The area is also noted for its unusual snowboard events like the Splash and Slalom competition or the trail leading through the pub at the bottom station with the Jump from the Veranda. Just to clarify: the main door and the veranda door on the other side of the building are left open, the floor is covered with a layer of snow and a little jump is built for take-off.

TWO NEW ROPEWAYS IN BIAŁKA TATRZAŃSKA

Białka Tatrzańska, the biggest and most modern ski area in Poland, is about 23 km from Zakopane (see ISR 5-Country 2013, pp. 20–21). Today the area extends from Kotelnica Białczańska to Kaniowka and covers the three mountains Kotelnica, Jankulakowski Wierch and Wysoki Wierch.

Of the seven chairlifts now operating in the ski area, four were built by Doppelmayr in the past and a fifth is a pre-owned Doppelmayr installation acquired from Canazei.



Basement parking (left) for all 53 chairs on the Jankulakowski 6-seater chairlift in Białka Tatrzańska

In 2014 and 2015 two more modern 6-seater chairlifts were supplied by Doppelmayr, namely the Jankulakowski chairlift (no. 8) and the Remiaszów chairlift (no. 9). They are both equipped with heated seats and orange canopies as well as DSD (Doppelmayr Sector Drive) and RPD (rope position detectors).

The CS10 chairs have automatic safety bars and footrests which are de-

signed to prevent small children from slipping off the seats. The chairs are licensed to transport up



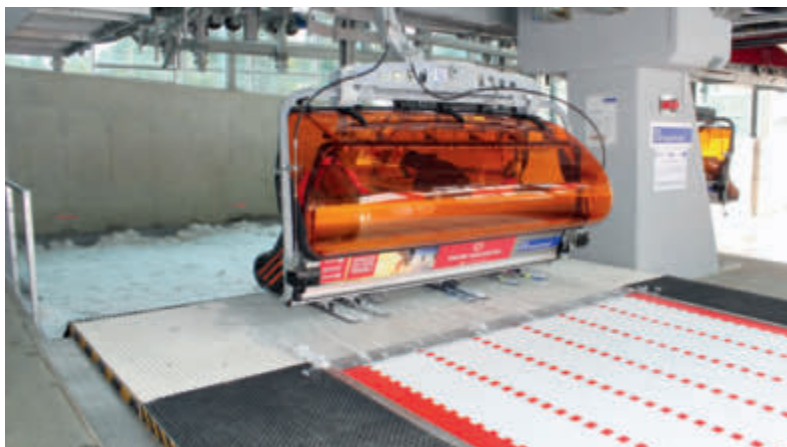
The bottom station of the Remiaszów 6-seater chairlift in Białka Tatrzańska with chair parking in a modern multipurpose building with lots of reflective glass

PHOTOS: R. GRIC (2)

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The loading conveyor adjusts to the height of the smallest passenger as indicated by the yellow-and-black marking on the left (bottom station of the Remiaszów 6-seater chairlift).



On the depression sheaves, the RPD sensor (red arrow) is located on two auxiliary rollers beneath the line of the haul rope. The photo shows the depression sheave at the exit from the bottom station of the Remiaszów 6-seater chairlift.

to five children at least 90 cm in height with one accompanying adult. The loading carpet adjusts automatically to passenger height, from adult to small child, so that boarding is easy and hassle-free for all. The Jankulakowski chairlift has basement parking for the chairs in the top station. The bottom station of the Remiaszów chairlift is integrated in a modern multi-purpose building, which also has parking for the chairs. Both chairlifts are very popular with families

and are seen as the model for a new quality standard for ropeways in Poland.

Near the bottom stations of the two chairlifts, there is a snowmaking pond with a capacity of 80,000 cu.m. for the area's fully automatic Supersnow snowmaking system. Construction of the two chairlifts and the snowmaking system upgrade were co-funded by the European Union.

Roman Gric

TECHNICAL DATA

Kolej no. VIII Jankulakowski 6-seater chairlift, Białka Tatrzańska

| | |
|--|--------------|
| (with DSD, CS10 chairs, RPD, heated seats and orange canopies) | |
| Elevation of bottom terminal | 785 m |
| Elevation of upper terminal | 937 m |
| Line length | 792 m |
| Vertical height | 151 m |
| No. of towers | 7 |
| Haul rope diameter | 43 mm |
| Drive | top terminal |
| Tensioning system | top terminal |
| Rated output | 234 kW |
| No. of chairs | 55 |
| Chair interval | 7.2 s |
| Line speed | 5.0 m/s |
| Transit time | 3.2 min |
| Rated capacity | 3,000 pph |
| Year of commissioning | 2014 |

Contractors

| | |
|----------------------------------|------------|
| Ropeway engineering and controls | Doppelmayr |
| Rope manufacturer | Fatzer |

TECHNICAL DATA

Kolej no. IX Remiaszów 6-seater chairlift, Białka Tatrzańska

| | |
|--|-----------------|
| (with DSD, CS10 chairs, RPD, heated seats and orange canopies) | |
| Elevation of bottom terminal | 768 m |
| Elevation of upper terminal | 943 m |
| Line length | 901 m |
| Vertical height | 176 m |
| No. of towers | 8 |
| Haul rope diameter | 43 mm |
| Drive | bottom terminal |
| Tensioning system | bottom terminal |
| Rated output | 271 kW |
| No. of chairs | 59 |
| Chair interval | 7.2 s |
| Line speed | 5.0 m/s |
| Transit time | 3.5 min |
| Rated capacity | 3,000 pph |
| Year of commissioning | 2015 |

Contractors

| | |
|----------------------------------|------------|
| Ropeway engineering and controls | Doppelmayr |
| Rope manufacturer | Fatzer |

PHOTOS: R. GRIC (2)

IMPRINT

OWNER: Bohmann Druck und Verlag, Gesellschaft m.b.H. & Co. KG, A-1110 Wien, Leberstraße 122, Telefon: +43(1)740 95-0, DVR 0408689 ● **PUBLISHER:** Bohmann Druck und Verlag ● **MANAGING DIRECTORS:** DDr. Gabriele Ambros, KR Gerhard Milletich ● **MANAGEMENT:** Mag. Robert Lichtner ● **EDITORIAL STAFF:** Chefredakteur: Mag. Christian Amtmann (CA); Fachtechn. Redakteur: Univ.-Prof. Dipl.-Ing. Dr. techn. Josef Nejez (JN); stellvertr. Chefredakteurin: Mag. Claudia Mantona (CM); Redaktionsassistentz & Anzeigenverwaltung Birgit Holzer; E-Mail: isr.zv@bohmann.at, Web: www.isr.at ● **ADVERTISEMENT SALES:** Dietrich Kops ● **LAYOUT & ELECTRONIC PUBLISHING:** Regina Eberharter (REPROMEDIA) ● **TRANSLATION:** Dr. Christopher Marsh ● **DISTRIBUTION:** Angelika Stola, Tel. +43(1)740 95-462 ● **SUBSCRIPTIONS:** abo@bohmann.at, published 6 times + special issues ● **SUBSCRIPTIONS RATES:** one year: € 143,10 (excl. VAT, incl. mailing charges). ● **BANK ACCOUNTS:** Bank Austria Creditanstalt AG 653-092-700; Österr. Postsparkasse 1732.755 ● **PRINT:** Druckerei Odysseus, A-2325 Himberg, Haideackerstr. 1 ● **CIRCULATION REGULAR ISSUES 1ST HALF-YEAR 2016:** 5.167 ● **CIRCULATION 5COUNTRY-SPECIAL:** 1.500.



New 15-passenger gondola ropeway for the Jasná-Chopok South Ski Area

ISR REPORT In 2016 the biggest ski area in Slovakia, in the Low Tatras, opened a new 15-passenger gondola ropeway built by Doppelmayr for faster access and a more comfortable ride.

SKI AREA WITH A LONG TRADITION

In Jasná the first detachable double chairlift was opened on the north side of Chopok mountain (2005 m a.s.l.) between Koliesko and Luková (stage 1) back in 1949. It was built under license from Von Roll by the Czechoslovak Transporta Chrudim company using the VR101 system with the chairs parallel to the line of the ropeway. That was followed by three more installations of that type – from Luková to Chopok (stage 2) and from Srdiečko to Kosodrevina (stage 4) in 1954 and finally from Kosodrevina to Chopok (stage 3) in 1957. The two sides of Chopok were thus connected by a chain of four chairlifts.

BIGGEST SKI AREA IN SLOVAKIA

In the 1970s and 80s, new aerial ropeways and surface lifts were built, making Jasná the biggest and most famous ski area in Slovakia. But it was not until the company changed hands and was restructured in 2009, with the current operator Tatry Mountain Resorts (TMR, a.s.) taking over from Ski Jasná, a.s. and increasing the company's equity to 250 million euros, that a full development project for Jasná was launched. Today the ski area has a total of 28 ropeway installations on the northern and southern slopes of Chopok, namely 15 surface lifts, eight chairlifts, four gondola ropeways and a Funitel, with a combined transport ca-



The bottom terminal at Krupová with two 15-passenger cabins



The open bottom terminal is a UNI-G design located at 1,089 m a.s.l.



Level walk-in for the bottom terminal



The cabins carry ten passengers seated in comfort and five standing. In view of their 15-passenger capacity, the cabins are fitted with DT 215 double grips.



The overhead drive with 556 kW continuous output is housed in the bottom terminal.

TECHNICAL DATA

Krupová-Kosodrevina 15-passenger gondola ropeway

| | |
|--------------------------------------|-----------------|
| Elevation of bottom terminal | 1,089 m |
| Elevation of upper terminal | 1,493 m |
| Line length | 1,212 m |
| Vertical height | 404 m |
| No. of towers | 9 |
| Haul rope diameter | 54 mm |
| Drive | bottom terminal |
| Rated output (starting / continuous) | 726 / 556 kW |
| Tensioning system | bottom terminal |
| No. of carriers | 30 |
| Carrier spacing | 115.7 m |
| Carrier interval | 19.3 s |
| Transit time | 4.8 min |
| Max. line speed | 6.0 m/s |
| Max. transport capacity | 2,800 pph |

Contractors

| | |
|------------------------------------|----------------------|
| Manufacturer, year of construction | Doppelmayr, 2016 |
| Cabin manufacturer | CWA: Omega IV-15-LWI |
| Haul rope | Fatzer |

capacity of over 32,000 pph, serving about 47 km of trails of all degrees of difficulty, with snowmaking available on most of them.

NEW LOCATION FOR THE BOTTOM TERMINAL

In view of the limited capacity of the existing feeder installations on the south side of Chopok (1200 pph on the Srdiečko-Kosodrevina quad chairlift) and the problematic location of the bottom terminal, the decision was taken to upgrade the system and extend the line down to the new car park in Krupová. That also reduced travel time to the ski area for visitors arriving from the south of Slovakia and also Hungary.

In 2012, in a first upgrade stage, a Doppelmayr surface lift, which had previously been located in another part of the ski area, was erected between Krupová and Srdiečko as an addition to the existing surface lift. A new feature of the lift was a twist curve in the lower section of the line.

One year later the new car park for 520 cars was built in Krupová and then, in the spring of 2016, work began on the new Doppelmayr 15-passenger gondola ropeway from Krupová to Kosodrevina. In its lower section, the line crosses the two above mentioned surface lifts and in the upper section it also crosses the line of the existing Srdiečko-Kosodrevina quad chair-

lift. This chairlift and the two surface lifts will remain operational for additional capacity on a stand-by basis.

TRIED AND TESTED CABINS

Following the operator's positive experiences with the gondola ropeways from Kosodrevina to Chopok (built in 2012, see ISR 5-Country/2013, pp. 15–18) and from Štart to Skalnaté Pleso in Tatranská Lomnica (built in 2013, see ISR 2/2014, pp. 14–15), the same system – with 15-passenger cabins from CWA – was chosen for this installation, too. The cabins, with ten comfortable seats and space for five standing passengers, were originally developed for TMR, a.s. Needless to say the terminals have level walk-in loading and unloading. With their high deadweight, these cabins perform very well in windy conditions (22 m/s maximum permitted wind speed in the direction of the line). They also offer plenty of space for strollers and wheelchairs without the need to fold up the seats or reduce line speed.

STATE OF TECHNOLOGY

All the towers on the new ropeway are fitted with RPD (rope position detection). For the intersection with the line of the quad chairlift, tower no. 6 had to be designed with a height of about 32 m. In the case of deropement on the new

gondola ropeway, the chairlift shuts down automatically, too. The gondola ropeway has an overhead drive with a continuous output of 556 kW and a hydraulic tensioning system, which are both located in the bottom terminal. Different solutions were selected for the design of the two terminals: The bottom terminal is a classic open station with a UNI-G enclosure, while the systems for the upper terminal are housed in a spacious building. The semi-automatic carrier parking facility is accordingly located in the upper terminal, with 18 cabins parked on the turnaround and the other 12 on a separate parking rail. The up to 20 m high steel structure of the top terminal rests on a 12 m high substructure built into a steep slope with solid walls. That gives users convenient access to the trails as well as a level walk-in to the upper stage from Kosodrevina to Chopok.

PUNCTUAL OPENING

After a nine-month construction period, the new Krupová-Kosodrevina gondola ropeway was finished on time in spite of some unreliable weather and limited access to the site and went into service punctually at the start of the 2016/17 winter season, with the official opening held on December 23. The total cost of the ropeway, which is the twelfth Doppelmayr installation in Jasná (and the 19th in the TMR Group's ski areas),



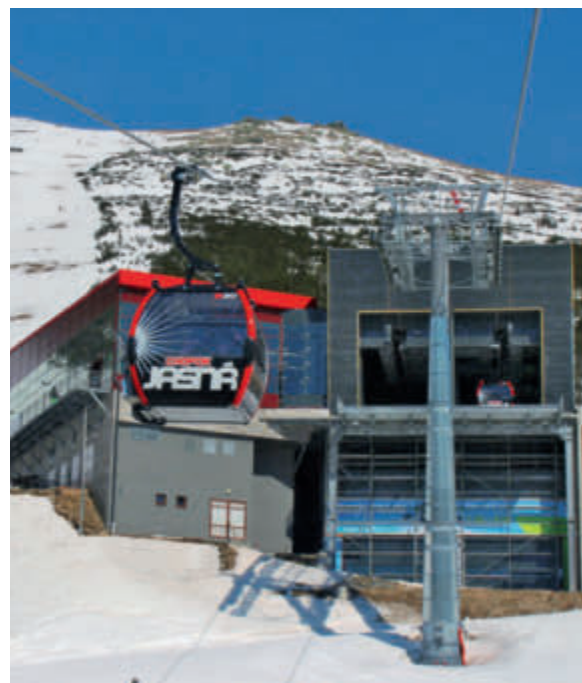
The old bottom station of the VR101 Kosodrevina-Chopok chairlift has been preserved as a small ropeway museum.

came to 11.6 million euros. It operates all year round, with good capacity utilization in the summer months, too.

In the next phase of ski area development, another 15-passenger gondola ropeway is to be built from Biela Púť to Priehyba on the north side of Chopok. When that project is completed, which is scheduled for 2018, the two sides of Chopok will be connected by gondola ropeways.

As a reminder of the old VR101 chairlift, the old bottom station and the no. 1 tower have been restored and are now on display as a small ropeway museum in the bottom terminal of the Kosodrevina-Chopok stage.

Radim Polcer / Roman Gric



The upper terminal is located at 1,493 m a.s.l.

PHOTOS: R. POLCER (2)

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Four new projects for the upcoming winter season

LEITNER ROPEWAYS Poland's top ski resorts choose Leitner Ropeways.

The Szczyrkowski ski resort is not only one of the largest but also one of the most popular resorts for winter sports in Poland. Most of all, guests love the region's long and varied slopes, which range from beginner-friendly to FIS-tested. Together with Leitner Ropeways, the operators are starting a comprehensive modernization project with the construction of three new ropeways, while Leitner Ropeways is also building another installation in Szczyrk for COS (Centralny Ośrodek Sportu Szczyrk). This combined construction program enhances Leitner Ropeways' market position in Eastern Europe.



CD4C Jaworzina 2013 - The new chairlift for COS will have the same design as the chairlift built in 2013.



The two new chairlifts in Szczyrkowski will be equipped with blue and yellow bubbles.

PHOTOS: LEITNER ROPEWAYS (2)



Three new installations for Szczyrkowski from Leitner Ropeways

In Szczyrkowski, the operators are working on a full infrastructure upgrade. One ropeway in the largest current ropeway development project in Poland is the GD10 Parkovisko – Hala Skrzyczneńska gondola lift with DirectDrive, which will combine comfort with capacity as an additional connecting ropeway from the center of the village. In addition, when the new ropeway is commissioned, it will run all-year round, making the ski resort appreciably more attractive. Leitner Ropeways is also building two 6-seater chairlifts in the ski resort. The Solisko – Hala Skrzyczneńska CD6C will replace an old installation and offer state-of-the-art transport on the existing route: The chairlift has heated seats and individual footrests and Leitner Ropeways’ DirectDrive to guarantee sustainable, reliable and silent running. An identically equipped blue version – the Solisko – Hala Pośrednia CD6C – will be built alongside the new chairlift with its yellow bubbles.

The operating company SON (Szczyrkowski Ośrodek Narciarski

S.A.) expects these comprehensive upgrades too boost visitor totals: “We expect more than half a million skiers after the first stage of expansion and 800,000 next year,” says Július Vinter, CEO of SON’s parent company TMR.

Leitner Ropeways’ fourth project in Poland is the Szczyrk – Jaworzyna CD4C, a quad chairlift ordered for Szczyrk by the operating company COS. After construction of the second stage in 2013, stage 1 is now being built to replace an existing 2-seater chairlift. Its features include DirectDrive, individual footrests, the CPS rope-monitoring system and – as in 2013 – the yellow bubbles.

The Szczyrk resort aims to replace its old surface lifts with modern installations over the next two years. The existing slopes are also to be enlarged and new restaurants and bars added. This will create new jobs in the region and promote the development of winter and summer tourism.

TECHNICAL DATA

CD6C Solisko – Hala Skrzyczneńska

| | |
|-------------------------|-----------|
| Length | 1615.41 m |
| Vertical distance | 349 m |
| Speed | 5 m/s |
| Capacity | 2400 P/h |
| Number of chairs/cabins | 77 |
| Number of towers | 11 |

CD6C Solisko – Hala Pośrednia

| | |
|-------------------------|---------------|
| Length | 1386.23 m |
| Vertical distance | 341 m |
| Speed | 5 m/s |
| Capacity | 2400/3000 P/h |
| Number of chairs/cabins | 66/83 |
| Number of towers | 11 |

GD10 Parkovisko – Hala Skrzyczneńska

| | |
|-------------------------|-----------|
| Length | 1488.41 m |
| Vertical distance | 410 m |
| Speed | 6 m/s |
| Capacity | 3000 P/h |
| Number of chairs/cabins | 51 |
| Number of towers | 10 |

CD4C Szczyrk – Jaworzyna

| | |
|-------------------------|-----------|
| Length | 1576.65 m |
| Vertical distance | 406.1 m |
| Speed | 5 m/s |
| Capacity | 2400 P/h |
| Number of chairs/cabins | 112 |
| Number of towers | 10 |

PHOTO: LEITNER ROPEWAYS (1)

New levels of excitement

WIEGAND The product portfolio of the Wiegand company brings new levels of excitement for children and adults alike.



Tobogganing fun with Wiegand's Alpine Coaster

Josef Wiegand GmbH & Co. KG, a medium-size family business headquartered in Rasdorf in the German state of Hessen, designs and constructs summer toboggan runs and dry slides and other exciting rides for resorts, leisure parks and playgrounds, etc. More than 450 employees on the Group's global payroll work with a spirit of invention and commitment to further develop and enhance the rides and slides that are attracting such a keen response on markets worldwide. For installation of the facilities alone, Wiegand employs more than 40 engineers.

TOBOGGANING FUN WHATEVER THE WEATHER

For a good twenty years now, Wiegand's rail-mounted Alpine Coaster has been a source of tobogganing fun in all weathers. In addition to classic locations like

leisure parks, it is also a logical choice for ski areas, where it makes use of an infrastructure that is otherwise idle in the summer and is also a popular alternative for winter visitors. With its all-weather capability, it brings year-round revenues for operators and tobogganing fun whatever the snow conditions for visitors, as numerous ski areas and winter resorts in Europe, Asia and America have so convincingly demonstrated.

The advantages of this type of bob include scope for individual design, with exciting bends and loops as well as bridgework up to 10 m high. As with the classic summer toboggan with trough-shaped track, riders use the brake lever to control their speed and style.

With an uphill transport capacity of about 500 persons per hour, the fully automatic Wiegand Lifter is the ideal solution for ensuring

profitable capacity utilization with the Alpine Coaster. Alternatively, existing lifts can be converted to carry riders and toboggans back to the start.

FUN FEELING OF FLYING

Both the Wie-Flyer and the Mystical Hex offer visitors a fun feeling of flying. On the Wie-Flyer, riders sit in gondolas in an aircraft design and fly through the curves at speeds of up to 40 kph. Changes of speed controlled by the riders themselves and tight curves with constant variations in direction generate extreme tilts and exhilarating sensations. With its flexible layout options, the Mystical Hex is the perfect add-on to leisure and fun parks, particularly since it can be routed above other attractions and can therefore be sited almost anywhere. The Mystical Hex offers variable configurations that make it suitable for both level sites and slopes and fully adaptable to local conditions.

For both rides, Wiegand recently introduced a new carrier called the Twin Seater. Unlike the gondolas, in which riders sit either one behind the other or facing each other, riders in the Twin Seater fly through the air seated next to each other. In addition to lateral tilt, forward and backward swing also contributes to a fine feeling of flying.

THE WORLD OF SLIDES

The Wiegand product range also includes dry slides made of stainless steel. They are available in an almost infinite choice of designs and are suitable for use not only in playgrounds but also in shopping malls, airports and even on ships. Apart from being fun for kids and adults alike, they are also used for the serious business of escape and



Flying fun with the Twin Seater

evacuation. The use of stainless steel ensures that the slides require zero maintenance and are more or less indestructible. The company's more spectacular slide installations include the longest tunnel slide in the world for the Arcelor Mittal Orbit, an observation tower in London's Queen Elizabeth Olympic Park, which is no less than

180 m long, and a ten-deck-high double slide by the name of Ultimate Abyss installed on the Harmony of the Seas, currently the biggest cruise ship in the world. From standard to spectacular, on all its projects Wiegand gives priority to three items: a comfortable ride, a safe product and a satisfied customer.



The Wiegand product portfolio includes dry slides made of stainless steel.

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KÄSSBOHRER SNOWsat installation from A to Z



SNOWsat for the entire fleet

Completely equipping a whole ski resort with SNOWsat requires comprehensive preparation and a considerable amount of knowledge. We accompany SNOWsat customer service engineer Tobias Kirsamer during installation work in Poland and Slovakia.

INVOLVEMENT FROM THE VERY BEGINNING

Tobias Kirsamer works in Technical Customer Service where his responsibilities include Eastern European countries. He established initial contacts back in June as he was brought on board during the sales negotiations already to provide the decision makers with professional support – in Kotelnica - Białka Tatrzańska in Poland and Jasná in Slovakia – and to overcome any concerns. At that time, he clarified details and individual requirements as well as the data and infrastructure to be provided by the ski resort. Together with

plant and workshop managers, IT specialists and the external surveyor, he inspected the ski resort and the possible locations for the base station and the repeater so as to guarantee optimum reception. In the summer of 2016, both ski resorts decided to completely equip their fleets with SNOWsat. In Jasna, they ordered three new Pistenbully 600 SCR with SNOWsat, which were delivered in the fall. In Kotelnica, one new vehicle and eight existing ones, two of which were third-party vehicles, had to be equipped with SNOWsat on-site.

GOOD PREPARATION IS EVERYTHING!

From now on, a lot of emails and phone calls follow. Tobias discusses the circumstances with his local contacts. A terrain model has to be contracted out and the server for the ski resort's IT department has to be prepared. Tobias identifies

the best location for the base station and the repeater using a simulation program. A location with a good view – as experience shows – will be perfect for the station, but it is best to take a look!

At the same time, the ski resorts are already applying for a license from the frequency management authority. A good thing, too, because later on Tobias will have to deal with a serious frequency problem.

LET'S GO! INSTALLATION!

“The most important part of such a project is careful preparation,” says Tobias Kirsamer. “The ski resorts in Poland and Slovakia are more than 1000 km away. So it is not simply annoying, but extremely expensive if something goes wrong or is missing.” But Tobias is well prepared. Some of the components needed and his tools he takes by car. The rest is delivered by truck. On site, he works with the technicians from the local Pistenbully office. “This makes communication easier because Polish and Slovak are over my head!” Together with the ski resort's staff, they start installing the base station and the repeater. “Here you have to be able to improvise. Try soldering an antenna cable in minus 10 degrees! In Jasna, we prepared the cables and the base station box inside and later on installed it outside on the mast of the weather station.” But something always comes up: The assigned frequency, for example, was affected by interference, which can cause difficulties in measuring snow depth.



Customer service engineer Tobias Kirsamer: "Well prepared is half the battle!"



Installation of the antenna in an unusual location



Activation of the software right in the vehicle



The license for radio communication had been granted and a frequency assigned – but signal noise was an issue. The radio authority came and quickly solved the problem. After all, there are plenty of frequencies to choose from. No more noise now!

HOMWORK

Clarification with the frequency management authority is handled by the ski resort and luckily they quickly receive an interference-free frequency. Back in Laupheim, as soon as the terrain model is available, Tobias remotely installs the programs on the server, clarifies the last details and prepares everything for the next visit.

FINALLY, ALL SET FOR THE WINTER!

Now everything should work. The resort-specific software is automatically installed in the client's vehicle systems. Tobias commissions each one and makes sure that everything is running smoothly. Now his night shift starts and he takes extra time for that. He spends two nights riding with everyone in Kotelnica, switches from vehicle to vehicle and explains the system,

operation and the many applications to each driver. "That is always a very intensive phase. The drivers learn the most here. And so do I!" Because driving the vehicles is the easiest way to find out if everything is running smoothly. Tobias tests small adjustments right in the vehicle and imports them into the system the following morning. "In the beginning, it may be that accuracy varies by a few centimeters. But that is quickly corrected and afterwards I can be sure that it is right." And in Kotelnica it was not necessary. "It was a showcase installation and everything ran like clockwork," says Jose Marek, Kässbohrer's representative in Poland for more than 30 years.

INTENSIVE TRAINING SO EVERYBODY KNOWS WHAT TO DO

The following day, Tobias is back

behind his computer again and installs the SNOWsat programs on the customer's workstations. From now on, every employee can work with SNOWsat on their PC. But before that, Tobias will have to run an in-depth training session for everyone involved. Everybody who is interested and especially those who have to work with it on a daily basis participate and learn everything about SNOWsat Web (CAN and Fleet) and SNOWsat Z.

Then they are ready to start. Tobias and his colleagues are always available for questions, although the better the training, the fewer the questions.

And the story continues: As SNOWsat worked so well last season, Jasna has decided to further extend the system, and in autumn it will be installed in another seven PistenBully groomers.

PHOTOS: KÄSSBOHRER (4)

Like a sports car on snow. Only without any limits.

PRINOTH A normal day in the office? Far from it! While some might be pushing paper and hammering away at their keyboards, others spend their days revving engines.



Leitwolf - King of the Mountain

There's something rather special about swapping a desk chair for the driver's seat in a 500 plus hp vehicle. Especially when you can see the fruits of your labor – perfect slopes – immediately appear before your eyes.

OPEN THE GARAGE AND THE SHOW BEGINS

Once the last skiers have carved their final turns in the snow and dusk begins to fall, snow groomer operators can get to work. "When the engines roar and the snow groomers emerge from the garage into the dusk, crowds of skiers often gather around the vehicles, fascinated by their power and size," explains Florian Waldner, demonstration operator at Prinoth Austria, with a twinkle in his eye.

KING OF THE MOUNTAIN

There's no workplace quite like it. "Sitting in the Leitwolf creates a feeling of superiority. Almost as if you're the king of the mountain. With its 530 hp engine and wide tracks that can take the vehicle anywhere, the snow groomer gives you a special sense of freedom that I enjoy anew every time," enthuses Waldner. Featuring luxurious seating, the operator's cab offers the same level of comfort as a top-class sports car – and makes work a real pleasure. "Sitting in the Leitwolf makes you feel as if you're crossing terrain that no other vehicle has ventured on before!"

PROFOUND ENGINEERING AND DRIVING KNOWLEDGE

This superiority is also reflected in

the technology used in the Leitwolf. Snow groomers have never been so efficient and yet so environmentally friendly as they are today. "The issues of sustainability and efficiency are of increasing importance to ski resorts. Our Leitwolf provides clients with a solution for sustainable slope preparation. It not only produces significantly lower emissions by complying with the latest exhaust emission standards but also boasts the best climbing ability and achieves the highest area coverage in its class thanks to its great tiller width. This means that the Leitwolf can groom larger areas in less time, saving considerable amounts of fuel and money," explains Andreas Muigg, Product Manager at Prinoth.

Innovative tilling technology

PRINOTH The Power tiller: innovative tilling technology for perfect slopes



What could be better than weaving your way down a freshly groomed slope? A perfect slope surface with no transitions to be seen is a clear sign that a Leitwolf with its unique Power tiller has been at work on the slope. Prinoth is the only company to offer a system in which the tiller can be offset by up to 45 cm (17.7 in) on both sides parallel to the line of travel. This means that the tracks overlap perfectly for grooming. Thanks to this parallel offset technology, the tiller no longer adopts unwelcome slanted positions during transverse movements. The Power tiller always runs perfectly inside the line of the tracks, preventing it from rising at the edges of the slope, for example. That enables the snow groomer to work its magic much closer to the slope edges, boundaries, or barriers – without the driver having to worry about the vehicle's tracks becoming caught anywhere. Prinoth's parallel offset technology, which is the first of its kind in the world, is particularly effective during transverse movements and on difficult terrain.

Whereas with other systems, buckling of the trailing tiller may have an unwelcome effect on the vehicle's steering, with Prinoth's system the tiller remains parallel to the line of travel at all times. That enables the vehicle to be driven forward much more steadily. Depending on requirements, the tiller can also be directly switched to trailing mode via the joystick of course. The new software enables drivers to select tiller settings, such as contact pressure, floating posi-

tion and counter pressure, with the tiller still raised. Drivers can simply activate the tiller using the joystick without having to move their hands from the normal working position. The Leitwolf also features a 4.5 m (14.76 ft) track width. Significantly wider than the tracks found on other snow groomers in its class, that saves both time and fuel. Meanwhile, the Power tiller creates the perfect finish on the slope, laying the foundations for an unparalleled skiing experience.



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The needs of customers

SUPER SNOW The snow experts from Supersnow are fast movers.

How to build a strong brand in the modern world? The basis for success is to take into account the needs of customers year by year.

“Thanks to our many years of experience in the snowmaking industry, we know what problems ski resorts are facing and thus we are able to create optimum solutions,”

says Damian Dziubasik, founder and proprietor of Supersnow. Supersnow is constantly looking for those optimum solutions and is a fast mover when it comes to

The 700 Automatic is an improved version of its predecessor.



PHOTOS: SUPERSNOW

meeting new market challenges. The company currently has two completely new snow guns, the 900 and the 700. Its design engineers have introduced a number of innovative solutions to improve the operation of the machines. The 700 Automatic is an enhanced version of its predecessor. On the basis of sheer hard work, numerous studies and tests, Supersnow has been able to create a trouble-free snow gun that operates with minimum energy, produces top-quality snow and is also extremely quiet and easy to use. One new feature of the 700 Automatic is a 10-blade aluminum fan, with the blade geometry and spherical hub shape designed to increase the efficiency of the airflow to the fan and thus output - especially at marginal temperatures. The 900 Manual snow gun has an intuitive control panel, with operation reduced to just two buttons. Working with this manual snow gun is a pleasure, even in the worst weather conditions.

FAST MOVERS

Supersnow are fast movers, as their customers all over the world know and appreciate. According to Michael Manhart, CEO of one of the world's leading ski areas, namely Skilifte Lech, Supersnow is set to become a main player in the global snowmaking market. The first Supersnow snow guns were acquired by Skilifte Lech for the 2013/2014 season. Over the last four years, they have been thoroughly tested and rated as a highly reliable high-performance solution. Next season there will be twelve new snow guns in Lech.

The 900 Manual snow gun has an intuitive control panel.



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Demaclenko's new EVO 3.0

To meet increasing customer demands for an energy-efficient high-grade fan gun, Demaclenko has developed the Evo 3.0. This is a very versatile product with low energy consumption that draws on the same top-quality,

cutting-edge technology as the Titan 2.0, which remains the company's best seller thanks to these very characteristics.

The new barrel gives the Evo 3.0 extra throw, while the new components in the upgraded nozzle ring have transformed the snow gun into the ideal way to produce snow in even the most adverse weather conditions and at lower temperatures than ever before. The fan, which has a total input power of just 14.7 hp, has also been modernized.

For development of the Evo 3.0, emphasis was also placed on the new electrical cabinet, which uses a power electronics system programmed especially for Demaclenko to control the complete operation of the compact fan gun. The force-ventilated weather station and the new 7-inch touch screen, which can be controlled via wireless LAN with a smartphone or tablet, round off the wide range of features available with the upgraded Evo.

TECHNICAL DATA

EVO 3.0

| | |
|----------------------------------|---------------------------|
| Tower height options | up to 20 ft (Evo 3.0 ASK) |
| Total weight with standard mount | 1,316 lbs (Evo 3.0 MMK) |
| Number of nozzles | 45 |
| Number of nucleators | 10 |



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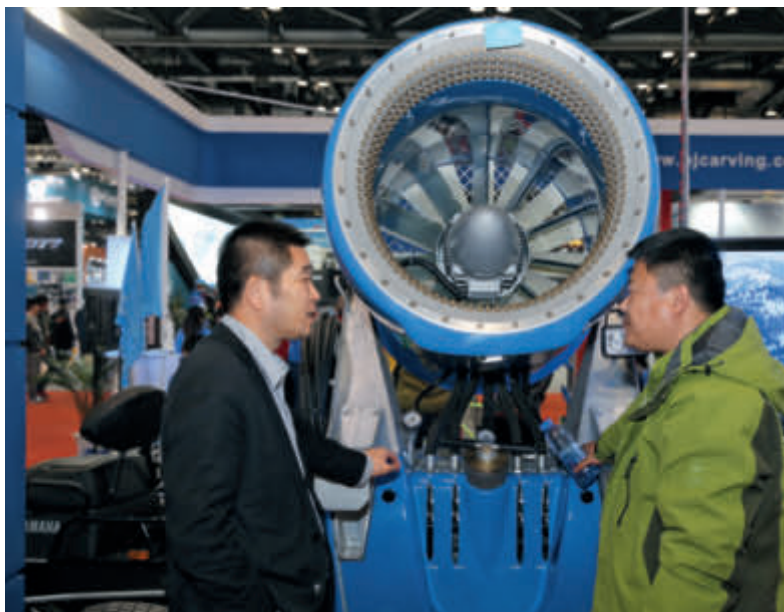
Ten years of winter technologies

ALPITEC CHINA For the past ten years, Alpitec China has had a significant impact on the market for mountain and winter technologies in China and is going to celebrate its tenth edition together with ISPO BEIJING in the China National Convention Center (CNCC) in Beijing from the 24th to the 27th of January 2018.

Together with ISPO Beijing, Alpitec China 2017 was a big success, with 68 exhibitors from 11 countries and over 40,000 visitors. To mark its tenth edition, Alpitec China 2018 is being made bigger than ever and is moving into Hall 4 of the CNCC. The new location gives Alpitec China a 60 per cent or more increase in exhibition area for a total of well over 4,000 square meters.

The Chinese winter sports sector is enjoying constant growth as the country prepares for the 2022 Winter Olympics in Beijing, just four years after the XXIIIth Winter Olympics, which will be held in Pyeongchang, South Korea, from the 9th to the 25th of February 2018. Reflecting this positive trend, Alpitec China is also growing and constantly working to respond to the increasing demands of a booming Asian market.

For all ski resort and cable car operators that want to be ready for the challenges of the future, the



Alpitec China offers a full overview of mountain technologies and serves as a platform for the exchange of knowledge and experience within the industry.

Asia Pacific Snow Conference will once again be a focal meeting point. The APSC already registered an attendance record with over 400 participants in 2017. On that occasion, Wu Bin presented the results of "The White Book 2016", which examines the status quo of ski resorts in China: Since last year, the number of ski resorts has increased by 14% (from 568 to 646) and skiers by 20% (from 12,500,000 to 15,100,000). China already has 850 conveyor lifts with a total length of 128 km, including 232 new conveyors in 2016 (+37.52%). The ski resorts also installed 1,180 new snowguns (+29.50%) for a new total of 5,180. Four hundred and ten snow grooming machines, 80 of them newly added in 2016 (+24.24%), are used to prepare Chinese slopes.

In this context, the international trade show for mountain and win-

ter technologies has successfully established itself as the leading business and information platform in the Asia-Pacific region. It is a unique opportunity to find out about product innovations presented by the key players in the industry, to maintain relationships with Chinese customers and to make new business contacts: "We are proud to provide an important gateway to the rapidly growing Asian winter sports market and are looking forward to writing yet another chapter of this success story in 2018," says Thomas Mur, Managing Director of Fiera Bolzano.

The 10th edition of Alpitec China will be held from the 24th to the 27th of January 2018 in the China National Convention Center of Beijing, together with ISPO Beijing, the international trade show for winter sports equipment in the Asia-Pacific region.



In February 2017, Alpitec China and ISPO Beijing attracted over 40,000 visitors.

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New carpet lift for Canada

ID GROUP This winter, Team Service has installed its brand new TS-1200 carpet lift at Mont Saint-Bruno (Canada).

This new carpet lift comes with a 1200 mm wide belt allowing two skiers to ride next to each other. That increases rated capacity to 4000 pph!

Team Service manufactures a complete portfolio of carpet lifts from basic to sophisticated. A wide range of options permits customers to customize their conveyors to their needs.

Team Service's carpet lifts can be covered with a canopy produced by the Idderman company.

These two manufacturers are subsidiaries of the French ID Group. Idderman manufactures universal carpet lift canopies that can be installed on any belt conveyor regardless of make, model or length. With its modular sections and independent structure anchored to the ground, Idderman canopies are quick and easy to install.



Going up has never been so simple.

Team Service also manufactures loading belts for chairlifts. These loading conveyors are great for increasing passenger comfort when boarding and generally modernizing fixed-grip chairlifts. They also reduce the number of stops due to passengers having trouble boarding the chairlift.

Last but not least, Team Service operates everywhere in the world and offers 24/7 remote support thanks to its operating system network. That enables Team Service to remotely diagnose and rectify any problems on their installations worldwide.

A simple and reliable ski lift

ID GROUP Development of a simple and reliable surface lift



This surface lift is perfect for use in beginners' areas but can also be used on longer and steeper slopes thanks to its 8-30 kW Nord motor.

For most people, surface lifts are uncomfortable and, for beginners especially, difficult to use due to the abrupt start and lack of flexibility. The Swedish Axet company is working to change that image by developing a simple and reliable surface lift. The Axet's lift comes with fixed poles attached to electromagnetic springboxes for smooth unwinding of the rope and a gentle start. This surface lift is perfect for use in beginners' areas but can also be used on longer and steeper slopes thanks to its 8-30kW Nord motor. Axet has also developed a special L-shaped pole for a comfort-

able and effortless ride for snowboarders. Axet manufactures surface lifts which are easy to install and maintain. Most of the laser-cut galvanized steel parts are pre-assembled in the plant. Everything is bolted, so no welding is required. To reduce maintenance costs and time, Axet uses simple and reliable mechanical systems such as Belleville washers (instead of complex hydraulic systems) to ensure constant tension on the cable. Finally, stations and towers can be anchored on prefabricated concrete blocks or buried steel structures to reduce installation time.

A number of ski resorts in Europe have opted for the reliability, simplicity and good value for money offered by an Axet surface lift.



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MOUNTAIN

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Angel Handle

ID GROUP Chair lift safety is critical for ski resort managers.



With its aluminum claw system, the Angel Handle is quick and easy to fit to any chairlift's restraining bars.

Unfortunately, too many deaths and accidents are caused by passengers falling from chairlifts. For the last three years, ID Group have been working in collaboration with a design of-

to its aluminum claw system. No drilling is required, so there is no damage done to the structure of the chairlift. The handle is fixed in front of every seat to ensure that each passenger ends up with one

device to develop a simple, economical and reliable device to ensure the safety of chairlift passengers. After several prototypes, ID Group finally unveiled the Angel Handle.

The Angel Handle is quick and easy to fix on any chairlift's restraining bars thanks

to its aluminum claw system. No drilling is required, so there is no damage done to the structure of the chairlift. The handle is fixed in front of every seat to ensure that each passenger ends up with one

handle between their legs so they cannot slip under the restraining bar. The Angel Handle can be fitted with advertising panels (for slope maps or advertisements) and additional footrest tubes in order to make it even safer and more comfortable.

ID Group manufactures its Angel Handle to be as cost-effective as possible for ski resort managers and it is currently best value for money on the market.

ID Group is now starting wide scale tests and is looking for ski resorts all over the world to equip their installations and work with them to continue to improve the product.

A complete range of rubber gratings

ID GROUP For over 20 years the French IDS company (brand of ID Group) has been developing and manufacturing rubber mats and technical floorings for ski resorts all over the world.

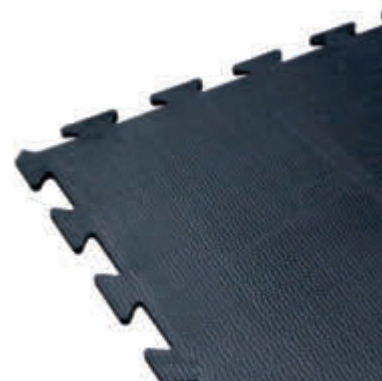
IDS collaborates with ski resort managers to develop heavy-duty products to secure and increase customer comfort. Most IDS products are made of natural rubber. This renewable and reusable material is perfect for extreme conditions; it is very resistant to wear caused by ski boot traffic and it remains flexible even when exposed to UV or ultra low temperatures (-40°C).

IDS offers a complete range of rubber gratings for maximum safety on gondola ropeways or cable car stations. Rubber gratings are anti-slip and drain snow and moisture

to reduce the risk of a fall.

Rubber floorings in roll format can be glued to the floor for maximum safety in ski rental stores, cable car ticket offices, locker rooms and on stairs, etc. Like the rubber gratings, rubber floorings are anti-slip, wear resistant and provide insulation from cold and noise.

In order to comply with the latest European standards, most IDS products are available in severable fire resistance classes (e.g. Bfl, Cfl) and are also compliant with accessibility norms.



Rubber mats and technical floorings for the mountain

PHOTOS: ID GROUP (2)

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OITAF Congress 2017 in Bozen

OITAF South Tyrol hosted the International OITAF Congress, which is held every six years.



350 attendees came to Bozen for the OITAF Congress.



Outside the Kurhaus in Meran (from the left): Markus Pitscheider (OITAF Secretary General), Jörg Schröttner (new OITAF President) and Martin Leitner (outgoing President)

With 350 attendees from thirty countries, the congress was the first top-level international ropeway industry conference to be held in South Tyrol. In his welcoming address, Governor Arno Kompatscher put it like this: “Hosting this congress in South Tyrol constitutes a unique opportunity for trade and industry including tourism in South Tyrol and helps consolidate South Tyrol’s position as a location for excellence in Alpine technologies.”



Governor Arno Kompatscher stressed the importance of South Tyrol for the ropeway industry.

OITAF (International Organization for Transportation by Rope) organized the congress, including simultaneous interpretation in five languages, in collaboration with EU-

RAC (European Academy of Bozen/Bolzano). OITAF is the only international umbrella organization for the ropeway world as a whole, representing the ropeway manufacturers and national supervisory authorities in 31 countries on all continents of the world. Its objective is to promote and further develop the ropeway industry. Since 1984 the OITAF General Secretariat has been located in the Bozen Provincial Authority’s Office for Ropeways, which is headed by Markus Pitscheider.

THE 2011-2017 PRESIDENCY

Martin Leitner, as OITAF President for the six-year period up to 2017, summarized developments in the industry as follows: “Since the 2011 Congress in Rio de Janeiro, where I had the privilege of being elected President, we have seen significant further developments in the ropeway industry. Aerial ropeways have become an effective solution for traffic problems. In addition to its regular role in winter sports and tourism in general, the industry has diversified into urban ropeways and opened up huge potential in the process!”

Before the start of the congress proper, OITAF held its traditional General Assembly, at which the outgoing President Martin Leitner of the Leitner company in Sterzing handed over to Jörg Schröttner, head of the Austrian ropeway authority at the Federal Ministry of Transport, Technology and Innovation in Vienna.

ECO-FRIENDLY AND SUSTAINABLE

The conference, with its motto “On the move with ropeways”, included presentations by 33 prominent speakers. The topics dealt with included ropeway developments in the fields of tourism and urban transport. One speaker compared ropeways with other modes of transport with regard to carbon emissions and economics. Another looked at the future of urban ropeways in Europa and America. La Paz in Bolivia, for example, will have a 30 km network with 26 stations when the final phase of development has been completed. Another good example of forward-looking transport planning is the Metrocable gondola ropeway built in the Colombian city of Medellin

to connect two deprived areas on the outskirts with the city center. As a result, typical commuting times have been slashed from 90 to 30 minutes. The Metrocable has also helped make dangerous areas safer: The level of affluence has risen; crime rates have sunk. That is a good example of the effects that intelligent urban ropeway solutions can have on the social and economic life of the people living there.

The Congress also had a focus on the technical and commercial aspects of ropeway operations. The motto for the program on one half-day was “Ropeway engineering on the rocks”, and the invited manufacturers and experts presented the latest findings and innovations in the field.

The general message: Ropeways generate affluence and year-round tourism and are one of the most eco-friendly and sustainable modes of transport.



Keynote speaker Professor Heiner Monheim

ROPEWAYS ARE THE FUTURE

One of the keynote speakers was the transport expert Professor Heiner Monheim. He is convinced that ropeways will rise to the challenge of increasing volumes of traffic. “In urban areas, continuously circulating ropeways are what we need. A ropeway can be a meaningful addition to the public transport system, reducing traffic congestion, solving parking problems and generally sparing the environment. Ropeways offer flexible configurations, are quickly built and take up little space; they have relatively low operating costs and a



The Ritten Cable Car links Bozen with the Ritten and is popular with both visitors and commuters. It was the first tricable gondola ropeway built by Leitner Ropeways.

small environmental footprint. Ropeways need therefore fear no comparisons. For the future we need new solutions, and in many respects ropeways are the solution for passenger and goods transportation. Many existing examples of urban ropeways bear this out,” said the expert.

ROPEWAYS: BACKBONE OF TOURISM

Ropeways are the backbone of tourism in mountain regions, generate affluence in remote areas and are an antidote to the rural exodus. In addition to their economic and social functions, ropeways make a significant contribution to traffic calming in the urban space. This highly important sector of tourism and the economy is made up of companies big and small, engineers, business people, local and national authorities, tourism experts, legal experts and all the people involved in research and ropeway engineering. For all of them the International OITAF Congress was an excellent opportunity to come together for an exchange of knowledge and experience at the international level and to learn from the various expert presentations.

SOUTH TYROL AND ENTHUSIASTIC ATTENDEES FROM AROUND THE WORLD

The social program naturally included a visit to the Messner Mountain Museum in Sigmundskron, where the keeper of the castle Reinhold Messner said, “We South Tyroleans helped invent the ropeway as it were and have a long tradition in ropeway engineering. Without the ropeway industry, tourism as we know it today would be unthinkable. This form of locomotion in the mountains and, increasingly, in urban areas, has to be extended more and more and further improvements made to the systems.” The congress closed with a gala dinner in Meran’s Kurhaus and on the following day with an excursion to Oberbozen for a visit to the Ritten Cable Car and an evening event devoted to the history of ropeways in South Tyrol, Italy, Switzerland and Germany. A parallel exhibition of historical photographs of South Tyrolean ropeways in the EURAC building in Bozen accompanied the 2017 OITAF Congress, the first high-level international ropeway congress to be held in Italy.

Apps for children



How to attract young visitors with your app

Mag. Ursula Weixlbaumer-Norz,
Child and family marketing expert
kids&funconsulting

MORE AND MORE HOMES now have smart phones and tablets, and digitalization has become a part of family life. One of the factors in the rapid spread of these devices is the use made of them by children, many of whom now have their own smart phone and/or tablet. From an on-line poll entitled “Kids and Apps Report 2016”, the German KB&B agency concluded that almost all thirteen-year-olds have a smart phone today and many of them have a tablet as well. Not only older children now use smart phones and tablets; 50 percent of babies under the age of one are given a smart phone to hold and play with once or twice a week. Parents are also generous with their tablets: about 40 percent of 9-10 year olds are allowed to use it every day. In most cases, the children use it to play with apps, especially when their parents want some time for themselves or the family is in a restaurant or traveling. Forty-two percent of those children spend their “digital playtime” playing educational games, 26 percent puzzle games and 24 percent brain games. Eighty-two percent of the children use mobile devices to watch videos, with YouTube as the channel of choice.

TIPS FOR YOUR STRATEGY

So how can resorts take advantage of these developments? Is it worth the expense of developing a dedicated app and trying to attract kids with games? Here are few tips for a successful app strategy:

- Link your app with local ameni-

ties and attractions (e.g. an adventure trail) or with stories/legends. Today there are very many generic game apps on the market which are very sophisticated products with iconic characters. That is not a market you want to compete on.

- If you decide to develop your own mascot, make sure you get your target group right. If your mascot is designed for 4-8 year olds, that is the age group that will be interested in your app. It is always better to aim a bit higher in terms of age. Children aged ten and above are the best target group for your app, because they are old enough to decide what they want on their smart phones.
- Apps for 10-14 year olds have got to be “cool”, almost adult and naturally highly professional.
- One of today’s technological trends is augmented reality, where real and virtual worlds merge. Such apps are designed to connect to the real world and intensify it, i.e. to offer a smartphone-aided augmented reality, with images and videos combined with computer-generated information or virtual objects using overlay or fade-in technology. An adventure trail, for example, can be augmented with the addition of interesting information and exciting games.
- Should the app be free? It is worth noting that “freemium” is becoming increasingly popular. Freemium is a business model in which the basic product is free

but users have to pay to access the full product and/or various add-ons. At all events, two euros fifty is the maximum parents can be expected to pay for a children’s app.

- Licenses are especially important in this context. Both parents and children trust big established brands like Disney, Dreamworks and Lego. They are more likely to buy an app if a well-known licensor or brand is involved. Whether you want to invest in a license will depend on your overall strategy.
- Video is tops: 83 percent of children watch videos on mobile devices. YouTube is THE video channel with the right app, including for kids. Children aged ten and above especially tend to use their smart phones and tablets almost exclusively to watch videos. And those children have a big say in planning the family holiday. That makes them a key target group for your app.
- Whatever you decide, be sure to include educational content in your app, for example embedded in games or videos. Educational games are the solution of the future. In the above mentioned KB&B poll, 42 percent of parents said they would be more likely to buy their children an educational game and also to pay a higher average price.

If you would like to know more, go to www.kidsandfunconsulting.com for further details.

Ursula Weixlbaumer-Norz

PHOTO: BY THE AUTHOR

Excellent cooperation over years

The new 15-passenger gondola lift Krupová–Kosodrevina in Jasná–Chopok juh, Slovakia's biggest skiing and hiking region once again brings enhanced comfort, design and capacity into by far the biggest cable car company in the region. The elegant carriers with room for ten seated and five standing passengers offer flexible use and ensure maximum comfort, high wind stability and greater transport capacity. Wheelchairs, walking aids or baby strollers can be carried without any problem, without having to fold up the seats or significantly reduce speed.

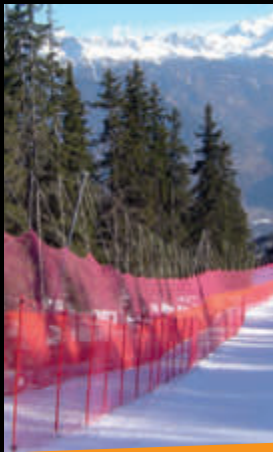
Thanks to the excellent, long-standing and well-established collaboration with the customer, the Doppelmayr team successfully completed the new installation in time for the 2016/17 winter season despite unpredictable weather conditions and very restricted access to the top station.

www.doppelmayr.com

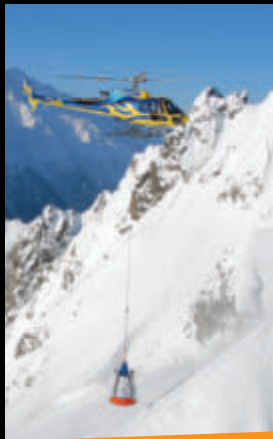


➤ ... to the exceptional.

➤ From the familiar ...



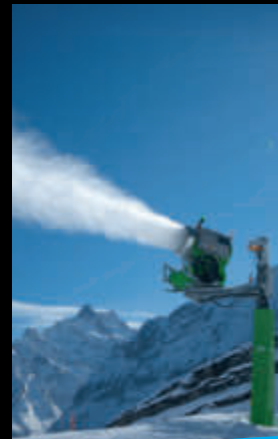
SAFETY



OUTDOOR
LEISURES



ROPEWAYS



SNOWMAKING



One partner, many solutions

Developing and designing innovative
solutions for mountainous areas

