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MAG. CHRISTIAN AMTMANN

Executive Editor

EDITORIAL

DEAR READERS.

In 2013 we took the decision to produce an ISR Special for the Czech Republic, Slovakia, Bulgaria, Romania and Poland, and we are pleased to report continuous growth with every edition of our Five Countries Special since then. That is further proof of the very considerable potential those countries have, which are still classed as "markets of the future", although several modern ski resorts have already opened there in the last few years which compare favorably with Austrian and Swiss ski areas.

For the team at ISR, the purpose of the Five Countries Special is to provide an exclusive information platform for ski resort managers in all five countries and for the supply industries in the field of Alpine technologies.
This year's edition of the ISR Five Countries Special includes reports on new ropeway installations in Poland, the Czech Republic and Romania as well an innovation made in Austria.

As the last winter clearly demonstrated, man-made snow can save the whole season. This edition of ISR contains useful information relating to snowmaking and the necessary snow grooming measures.
Today, more and more mountain resorts are investing in various attractions in support of year-round tourism, and that is also one of the subjects dealt with in this ISR Five Countries Special.

Finally, I should like to once again express my sincere thanks to our international correspondent Roman Gric. This time he has authored an exclusive report about the latest developments in Krkonoše (Giant Mountains).

I hope you enjoy reading this special edition of ISR and look forward to your feedback.

Christian Amtmann
amtmann.zv@bohmann.at

A group of innovative technology companies. Ropeways, grooming equipment and snow-making machines, from a single source, with much in common: Technical excellence, safety and a high degree of specialization.

LEITNER ropeways Pinoth DEMACLENKO

Child-friendly chairlift in Białka Tatrzańska Ski Area

DOPPELMAYR The Remiaszów detachable 6-seater chairlift with child-friendly chairs can carry up to 3,000 passengers an hour.

Six-seater chairlift with orange canopies

In 2015, Doppelmayr Polska completed the new 6-seater chairlift in Białka Tatrzańska, one of Poland's biggest and most modern ski areas. Doppelmayr had already built a lift of the same type – Jankulakowski – the previous year. Each of the two six-seater chairlifts with canopies comfortably carries up to 3,000 passengers an hour to the ski slopes. The child-friendly CS10 chairs offer safe transportation for up to five children per accompanying adult. The restraining bars with individual footrests close and lock automatically. A vertically adjustable loading conveyor helps the younger passengers when boarding.

In the case of both lifts, Doppelmayr Polska was responsible for the entire project from construction of the foundations and station buildings through to delivery, installation and start-up. In addition to the two 6-seater chairlifts, Doppelmayr has already built another three installations in the Białka Tatrzańska ski area, all of them major projects for Doppelmayr Polska.

"The new lifts that Doppelmayr built for us are a huge step forward for modern ropeway transportation in Poland. The two installations fill us with pride because we get so much positive feedback from our guests. As operators, we can sum up as follows: "The Doppelmayr lifts mean perfection, comfort and functionality at a high level," says Tomasz Paturej, Managing Director of the ski area operated by Kotelnica Białczańska Sp. z o.o.

TECHNICAL DATA

6-CLD-B Remiaszów

Owner	Ośrodek Narciarski Kotelnica Białczańska Sp. z o.o.
Location	Białka Tatrzańska, woj.małopolskie (POL)
Lift type	Detachable chairlift with chair model CS10, DSD
Inclined length	901 m
Vertical rise	175.5 m
Speed	5.0 m/s
Capacity	3,000 pph
Opened	Fall 2015

TECHNICAL DATA

6-CLD-B Jankulakowski

Inclined length	792 m
Vertical rise	151 m
Speed	5.0 m/s
Capacity	3,000 pph
Opened	Winter 2014

PHOTOS: DOPPELMAYR (2)

Child-friendly Doppelmayr chairlift in Poland's Białka Tatrzańska Ski Area

Czech Republic – new investmen (Giant Mountains)

ISR-REPORT A number of new ropeways were built in time for the 2015/2016 winter season in the traditional ski areas of the Czech Republic.

Immediately above the bottom station, a double hold-down tower and a supporting tower provide extra rope height above the piste.

ŠPINDLERŮV MLÝN

The town of Špindlerův Mlýn is rightly considered the leading year-round tourism destination on the south (Czech) side of Krkonoše (Giant Mountains), which marks the border between the Czech Republic and Poland. It is also the country's number-one ski area. The climate in a protected location at the head of the valley of the Upper Elbe and the beautiful scenery combined to turn a remote town with an economy based on logging, stock farming and depleted medieval copper and silver mines into an international resort with 43 hotels, 134 holiday chalets and 23 mountain refuges for a total of 10,000 visitors.

A lot has happened in Špindlerův Mlýn since our last report on the region (ISR 3/2007, p. 50-51). The key to the further development of the resort was the decision to rent out the ski area as of the 2012/2013 winter season to the biggest and most potent destination management company in the region, namely the Slovak Tatry Mountain Resorts company (a member of the J&T Group), which acquired the right to operate Špindlerův Mlýn through a subsidiary by the name of Melida Špindlerův Mlýn for a twenty year period. One of the conditions of the contract was that Tatry Mountain Resorts would invest some 800 million Czech Crowns (30 million euros) during the period of the lease.

More than half of this amount has been invested already (480 million Czech Crowns or 17.8 million euros). Up to the 2014/2015 winter season, most of the money was spent on refurbishing and upgrading the snowmaking installations, while the 2015/2016 winter season started with the opening of a modern six-seater chairlift with direct drive from Svatý Petr to Pláň featuring heated seats, blue canopies and the safety bar with central footrest locked automatically by a closing rail. The closed safety bar is locked automatically and remains locked until the vehicle enters the arrival station. This is the fourth generation of ropeways on the mountain since a single-seater chairlift was installed in 1947. It replaces a detachable quad chairlift built in 1992 (see ISR 2/1993, p. 40-41). Given the successful out-come of an environmental impact assessment, the quad chairlift will be overhauled and rebuilt in another sector as a link between the Horní Mísečky car park and Medvědín, replacing a 950 m long surface lift.

New structures were also required for the bottom station of the new chairlift. Unlike the old quad chairlift, which had no carrier parking, the new station has automatic parking for all 78 high-grade six-seater chairs in a carrier parking facility placed perpendicular to the line of the lift. It also has a loading conveyor system at 90 degrees to the lift line for maximum operating efficiency. With the new bottom station located further down the slope than that of the old quad chairlift, a combination of a double hold-down tower with two times twelve rope sheaves and a supporting tower with ten sheaves per rope was required to achieve adequate clearance over the trail immediately above the station. The bottom station accommodates the direct drive, the hydraulic tensioning system and the power supply for the heated seats. The top station is a fixed return station. Both stations have a high enclosure for greater ease of

PHOTO: R. GRIC (1)

ts in Krkonoše

View of Špindlerův Mlýn from the upper section of the Svatý Petr - Pláň six-seater chairlift

maintenance. As an advertising platform for the big RWE energy supply company, the chairlift has been given the name RWE Line Svatý Petr.

Work on the new chairlift began at the end of July 2015 and was finished in time for the winter season, with the opening ceremony held on 12 December. Helicopters airlifted the towers into place, with the return flights used to transport the old towers to the valley in readiness for the general overhaul of the old quad. The new ropeway is designed for a line speed of 6.0 m/s and a transport capacity of 3,000 pph. As it is classed as a replacement installation, however, it may only be operated at the old rating of 2,400 pph at a line speed of 4.9 m/s. An increase in rated capacity is dependent on successful completion of an environmental impact assessment.

The six-pack chairlift is in year-round operation and is suitable for use by non-skiers in winter. In addition to blue and red trails with snowmaking and groomed pistes, the mountain has another winter attraction at the top station, one that is more typical of glacier ski areas, namely an ice pavilion. A big air-conditioned tent houses an exhibition of ice sculptures commemorating the seventh centenary of the birth of Charles IV, King of Bohemia and Holy Roman Emperor. The exhibition is open to the public free of charge throughout the winter season.

210 million Czech Crowns (7.8 million euros) were invested in the resort in the run up to the 2015/2016 winter season without any subsidies. In addition to the six-seater chairlift, the money was spent on improvements to the snowmaking system and modifications to the trails.

Špindlerův Mlýn now has five chairlifts and twelve surface lifts with a total transport capacity of 20,000 pph. Apart from the Mísečky - Medvědín chairlift, there are plans for the period up to 2020 for a ropeway linking the sectors of the ski area on both banks of the River Elbe with a hub located above Labská Dam at a cost of one billion Czech Crowns (37 million euros).

JANSKÉ LÁZNĚ

For the 2015/2016 winter season, SkiResort Černá hora - Pec invested a total of 250 million Czech Crowns (9.3 million euros) in own and borrowed capital. That is the highest amount invested in a one-year period in the history of skiing in the Giant Mountains. It was used to build two chairlifts and 1.5 km of new pistes, install snowmaking on 2.5 km of trails and establish a shuttle between two ski areas in the resort with four Hägglunds BV 206 tracked personnel carriers carrying 20 passengers each.

One of the chairlifts – built to the left of the existing Janské Lázně - Černá hora 8-seater gondola lift – is

PHOTO: R. GRIC (1)

TECHNICAL DATA

Svatý Petr - Pláň six-seater chairlift, Špindlerův Mlýn

(with direct drive, heated seats and blue canopies)	
Elevation of bottom station	744 m
Elevation of top station	1,185 m
Line length	1,576 m
Vertical height	441 m
Number of towers	13
Rope diameter	48 mm
Drive	bottom station
Tensioning system (hydraulic)	bottom station
Rated output	668 kW
Number of chairs	78
Chair interval	9.0 s
Line speed	4.9 m/s
Transit time	5.4 min
Transport capacity	2,400 pph
Operational since	12 December 2015

Contractors

Ropeway engineering and controls	Leitner ropeways
Rope manufacturer	Fatzer
Planning	ATIP Trutnov and SIAL Liberec

TECHNICAL DATA

Hofmanky Express six-seater chairlift, Janské Lázně

(with direct drive, heated seats and blue canopies)	
Elevation of bottom station	787 m
Elevation of top station	1,093 m
Line length	1,146 m
Vertical height	306 m
Number of towers	9
Rope diameter	42 mm
Drive	bottom station
Tensioning system (hydraulic)	bottom station
Rated output	441 kW
Number of chairs	47
Chair interval	9.0 s
Line speed	6.0 m/s
Transit time	3.2 min
Transport capacity	2,400 pph
Operational since	4 December 2015

Contractors

Ropeway engineering and controls	Leitner ropeways
Rope manufacturer	Fatzer
Construction work	Tlachač s.r.o. Svoboda n. Úpou
Planning	Leitner ropeways

FIRST THREE GENERATIONS OF THE SVATÝ PETR - PLÁŇ ROPEWAY IN ŠPINDLERŮV MLÝN

Transporta single-seater chairlift, operational from 1947 to 1986

Tatrapoma double chairlift, operational from 1987 to1991. It now has another line and serves the adjoining black piste.

Doppelmayr quad chairlift, operational from 1992 to 2015

The 668 kW direct drive from Leitner ropeways on the Svatý Petr - Pláň chairlift is currently the most powerful ropeway drive in the Czech Republic.

TECHNICAL DATA

Zahrádky Express quad chairlift, Pec pod Sněžkou

Elevation of bottom station	886 m
Elevation of top station	1,090 m
Line length	856 m
Vertical height	828 m
Number of towers	9
Rope diameter	38 mm
Drive	bottom station
Tensioning system (hydraulic)	bottom station
Rated output	250 kW
Number of chairs	58
Chair interval	7.4 s
Line speed	4.5 m/s
Transit time	3.2 min
Transport capacity	1,960 pph
Year of construction	1996 Obertauern, 2015 Zahrádky
Operational since	4 December 2015

Contractors

Ropeway engineering	Leitner
Controls	Easy Control Morava
Rope manufacturer	Redaelli
Construction work	Tlachač s.r.o. Svoboda n. Úpou
Planning	Ropes Engineering & Architecture Vintl

a modern six-seater chairlift by the name of Hofmanky Express with direct drive, blue canopies and heated seats. That marks the successful completion of a project for the construction of a new ropeway and trail that has lasted a total of eight years. On the basis of the results of an environmental impact assessment, the line of the ropeway had to be modified in the area of the bottom station because it is the habitat of a protected plant, namely the Sudeten lousewort. Similarly, the top station had to be located 150 m further down the mountain than originally planned because of a forest of ancient spruce.

This chairlift has been built with parking for all 47 chairs in the stations without a dedicated carrier parking facility. The rated capacity of 2,400 pph is achieved at a line speed of 6.0 m/s, which is a first for the Czech Republic. Here, too, the bottom station has a high enclosure and houses the direct drive, the hydraulic tensioning system and power supply for the heated seats. The top station is a fixed return station with a low enclosure.

The new chairlift is the second access installation for the Černá hora ski area. The lift has parking for 250 cars and serves a new 1.5 km long piste with snowmaking.

PEC POD SNĚŽKOU

The second ropeway opened at SkiResort Černá hora - Pec in time for the 2015/2016 winter season is a quad chairlift built as a replacement for a surface lift in Pec pod Sněžkou. This is a pre-owned installation, namely the Panoramabahn from Obertauern, which was replaced by a six-pack in 2014. The quad chairlift has been overhauled and provided with new tower shafts, a new a.c. drive and new controls. The compact open lower terminal houses the drive and the hydraulic tensioning system. A semi-enclosed carrier parking facility has been built next to the top station.

The quad chairlift makes the ski area – with its numerous shorter trails – much more attractive, especially for families with children.

Mega Plus s.r.o., the country's biggest operator, runs five ski areas in the eastern part of the Giant Mountains – Černá hora, Pec pod Sněžkou, Černý Důl, Velká Úpa and Svoboda nad Úpou – with one gondola lift, seven chairlifts, 28 surface lifts and three conveyor lifts.

The company has plans to build more chairlifts in the near future, namely U lomu in Černý Důl and Javor in Pec.

SKITOUR SHUTTLE FROM ČERNÁ HORA TO PEC POD SNĚŽKOU

On the mountain plateau, between the top station of the Černá hora gondola lift and the ski area in Pec, SkiResort offers a first for the Czech Republic under the name of SkiTour: a shuttle service using four Hägglunds BV 206 tracked personnel carriers adapted to carry 20 passengers each. This amenity enables visitors to explore the resort's two biggest areas without having to go

PHOTOS: ARCHIV R. GRIC (1), R. GRIC (3)

A big air-conditioned tent outside the Pláň top station houses an exhibition of ice sculptures commemorating the 7th centenary of the birth of Charles IV, King of Bohemia and Holy Roman Emperor.

A busy day at the bottom station of the Hofmanky Express six-seater chairlift in Janské Lázně

The Zahrádky quad chairlift in the Pec pod Sněžkou ski area was built as a replacement for a surface lift.

The top station of the Hofmanky Express, which is located on a steep slope, has 90° unloading.

back down to the valley on the ski bus. The local facilities also include a ski bus network which enables visitors to complete a full circuit of the ski areas.

HERLÍKOVICE - BUBÁKOV FOUR-SEATER GONDOLA LIFT

10 km down the valley from Špindlerův Mlýn is a relaxed family ski area called Herlíkovice - Bubákov, which has two chairlifts and five surface lifts with a total capacity of 7,500 pph. In the past, access to the ski area, which is situated across the river from the main road and car park, was problematical, involving either a tiring climb up some stairs or a long ride on a ski bus.

To solve the problem the operator installed a unique ropeway: a fixed-grip four passenger gondola lift with a line speed of 0.5 m/s. For a line length of just 172 m and 27 m of vertical, that is doubtless an acceptable solution. The line crosses a main road, the River Elbe and a high-voltage transmission line. The installation was built using gondolas with detachable grips and towers taken from the Girak quad gondola formerly linking Štart and Skalnaté Pleso in Vysoké Tatry (High Tatras) and stations from a Graffer double chairlift, which were engineered for Marilleva in 2006 but never installed. The Girak cam-action grips are operated as fixed grips and only opened for periodical relocation of the carriers on the rope.

The little gondola proved a successful solution in its first operating season. In addition, the sight of the ropeway crossing the main road is good advertising for the ski area.

Roman Gric

PHOTOS: R. GRIC (3), SKIAREÁL ŠPINDLERŮV MLÝN (1)

TECHNICAL DATA

Herlíkovice - Bubákov four-seater gondola, Herlíkovice

(fixed-grip system)	
Elevation of bottom station	529 m
Elevation of top station	556 m
Line length	172 m
Vertical height	27 m
Number of towers	5
Rope diameter	36 mm
Drive	bottom station
Tensioning system (hydraulic)	bottom station
Rated output	15 kW
Number of carriers	22
Carrier interval	33.3 s
Line speed	0.5 m/s
Transit time	5.7 min
Transport capacity	430 pph
Operational since	8 January 2016

Contractors

Ropeway engineering	Graffer and Girak
Gondolas	Swoboda
Controls	Elektropohony Frenštát p. Radhoštěm
Rope manufacturer	ŽDB Drátovna Bohumín
Planning	Michálek Chrudim

World first for Mayrhofen

DOPPELMAYR The new Penkenbahn with its innovative 3S technology is part of Mayrhofen's mobility strategy.

Carrier downhill from the angle tower

In December 2015, Mayrhofen in the Tyrol celebrated the opening of the new Penkenbahn, a 3S-Bahn or tricable aerial tram built by Doppelmayr. It forms part of the modern holistic traffic management concept developed by the Mayrhofen authorities as the point of departure for a new era of mobility – both on the mountain and down in the valley. The new installation was built as a replacement for a bicable gondola lift and is designed for all-year operation. The use of an angle tower on a tricable system is a world first.

TECHNICAL DATA

Penkenbahn tricable gondola lift

Vertical rise	1,135 m
No. of towers	3
Angle tower (no. 1 tower):	
Angle of deflection	6.5°
Length of haul rope saddles	approx. 50 m
Saddle radius	approx. 70 m
No. of carriers	33 cabins
Carrier capacity	30 pers.
Line speed	7.5 m/s
Transport capacity	3,840 pph

PROVEN TECHNOLOGY AND SUCCESSFUL PARTNERSHIP

There were several reasons for choosing Doppelmayr. A major factor was the company's know-how and experience with tricable ropeways. In addition to the innovative angle tower, the Penkenbahn also incorporates Doppelmayr's proven recovery system, which ensures that all the cabins can be returned to the station in an emergency without the need for a dedicated evacuation ropeway. The Easy Boarding system originally proposed and first implemented by the operating company of Serfauser Bergbahnen has been further developed in collaboration with Skidata and Mayrhofner Bergbahnen and now features intelligent gates for relaxed loading. The system was designed with a strong focus on safety, particularly for children. Ski schools, for example, have their own access point and loading area – a convincing argument where children are involved.

Mayrhofner Bergbahnen and Doppelmayr enjoy a successful business relationship in a spirit of trust that has developed over the decades. Together, they have handled such impressive projects as the Ahornbahn, which operates with Austria's biggest aerial tramway car, and the Penken Kombibahn, with a record capacity for a chondola of 3,900 pph.

The new Penkenbahn is also interesting for the solutions adopted in the stations. To ensure that the ground floor of the top station, with its excellent access, offers maximum space for visitor services, a vertical conveyor was incorporated to carry the spacious cabins up to the carrier parking facility on the first floor. Transit time on the highly wind-resistant 3S-Bahn is a mere eight minutes, and the ride in the cabins in the Mayrhofen corporate design is an extremely comfortable experience, with padded seats and public WiFi.

PHOTO: M. MITTERER/DOPPELMAYR

FIRST 3S ANGLE TOWER IN THE WORLD

Last year, Bergbahnen Mayrhofen was confronted with the challenge of replacing an old bicable gondola lift with a new installation on the same line. The line of the old Penkenbahn had an unusual feature in the form of an angle tower, which meant that Doppelmayr's engineers had to develop a special solution for the tricable replacement installation. They responded with an impressive angle tower design with customized rope guiding elements. As basic research for the new tower curve, the ropeway experts performed in-depth calculations and studies. For such development work, Doppelmayr employs cutting-edge engineering software. "In order to be able to simulate travel over the curve saddles on the Penken 3S and the special haul rope guidance configuration, we first had to further develop the computer simulation program with the addition of individual software modules," says Peter Luger, Doppelmayr's 3S system manager. The experts in Wolfurt built their own curve test rig where they could perform the extensive material and function tests that were essential for a design that has to cope with an angle of deflection of 6.5° and develop the solution to technical maturity. This intensive test phase lasted a total of three months. That was time well spent, as no further modifications were required under operating conditions.

OPTIMUM CURVE PERFORMANCE

The Penkenbahn 3S carriage was completely reengineered for optimum performance in the complex situation of travel along the curve. "We adapted the 3S carriage for Mayrhofen to the new rope guidance configuration so that it is fully equipped to handle the curve," says Peter Luger. Doppelmayr also had to take measures to protect the rope sheaves against excessive wear as the new rope guidance configuration and the angle of deflection entail a significant increase in the forces exerted on the material in comparison with the old bicable installation. The mechanical design also posed new challenges for Doppelmayr's engineers. A new rope sheave was developed. The monitoring system for rope position in the curve on the tower is also a new solution developed by Doppelmayr's electrical engineering department. Central visualization is provided in the stations.

NEW BENCHMARK FOR THE QUALITY OF THE RIDE

In order to achieve the smoothest possible ride on the 3S Penkenbahn, Doppelmayr designed long rope saddles (approx. 50 meters in length). As a consequence, passengers only realize that the cabin is negotiating a curve when their line of sight changes. "The 3S angle tower in Mayrhofen underlines once again our potential for innovation with tricable systems. In terms of the quality of the ride, attractiveness and safety, we actually managed to exceed our customer's expectations," adds a satisfied Peter Luger.

FACTBOX

Advantages of the 3S Penkenbahn

- Much shorter lift lines
- Separate gate for ski schools with children
- Transit time only 8.2 minutes
- Very comfortable seats
- Double the capacity of the old system
- Ample space for rental operations and storage in the stations
- WiFi

Technical highlights

- Angle tower
- Vertical conveyor
- Easy Boarding system
- Fully automatic battery charging
- Fully automatic central rope saddle lubrication for all towers
- WiFi entertainment

General

- Client: Mayrhofner Bergbahnen AG
- Location: Mayrhofen, Tirol (A)
- Installation: April to December 2015
- Opening: December 19, 2015

Riding in comfort in an inclined elevator to Râșnov Citadel

INAUEN-SCHÄTTI AG June 2015 saw the opening of an inclined elevator built by the Swiss company Inauen-Schätti AG to carry visitors from the center of the Romanian town of Râșnov to the famous fortified refuge. With the construction of this transport system, combining mature technology and long service life, the town is now benefiting from increasing numbers of visitors.

Thanks to the new inclined elevator built by Inauen-Schätti AG from the old town center to the citadel, Râșnov is benefiting from increasing numbers of visitors.

The Romanian town of Râșnov, which is located in Brașov County in Transylvania, occupies a mountainous setting of great variety. High above the town, the fortified refuge stands atop 150 m high limestone cliffs and offers superb views of the surrounding countryside. Built by the Teutonic Knights in about 1215, Râșnov Citadel is a popular tourist attraction. Inside the fortifications, with ten towers and thick connecting walls, the various buildings and narrow lanes form a tiny village in its own right. Originally the thirty or so buildings included everything needed for village life to continue in times of war (e.g. school, chapel, well, etc). Today the front part of the citadel is still very well preserved. In order to upgrade the town center and compete with "Dracula's Castle" (Bran Castle), which is only 12 km away, the local authority decided to implement a substantial urban development program. One of the proposals was to build an inclined elevator to transport visitors from the town center to Râșnov Citadel. The contract was awarded to the Swiss family business Inauen-Schätti AG of Schwanden. In addition to conventional cable car installations, Inauen-Schätti enjoys an international reputation as a producer of inclined elevators. In Dallenwil, the company has an office devoted primarily to this field of business, which has been very successful under the management of Thomas Müller. ISR talked to him about the Râșnov Citadel project.

ISR: Thomas, to what extent does your inclined elevator benefit Râșnov itself?

Thomas Müller: In the past, visitors to the historical fortress never got as far as the center of Râșnov because all the cars and coaches parked at the rear of the complex. From there, visitors took a little road train up to the citadel and still had a longish walk before they found themselves inside the walls. In contrast, our inclined elevator starts in the town center (bottom station: 635 meters a.s.l.) and in this case provides comfortable transportation to and from the citadel (top station: 735 a.s.l.) at a speed of 2 m/s, overcoming 93 meters of vertical. Thanks to the level walk-in design of the inclined elevator, people with limited mobility and wheelchairs and strollers can also be carried without any problems. The inclined elevator is operated in the same way as a standard elevator. On arrival at the top station, passengers find themselves outside the castle walls and can enjoy the fine view of the town and the surrounding mountains. From the top station, visitors simply follow a new short path leading inside the walls of the citadel. Since June 2015, the new inclined elevator has been officially operating from 8 a.m. to 6 p.m. and has scored with a very high level of availability: To date (August

PHOTO: INAUEN SCHÄTTI AG (1)

In Râșnov, the inclined elevator from the Comfort series is designed to carry twenty passengers. Since the official opening in June 2015, it has made almost 39,000 trips without a hitch.

Official opening of the inclined elevator serving Râșnov Citadel: The Romanian crew from Acomin S. A. and Gabriel Klauser (right) of Inauen-Schätti AG

Thomas Müller, manager of the Dallenwil office, standing in front of the refurbished inclined elevator serving the famous Leysin Hotel Management School (Switzerland): "Inclined elevators look so simple but in fact are challenging products that call for real knowhow."

9, 2016) the cars have made almost 39,000 trips, including 5,500 in June alone. For the project, we enjoyed close cooperation with a local contractor (Acomin S.A.). The inclined elevator has boosted tourism in the town center especially. In the framework of an urban development plan, the water and power supplies to the old town center have also been rehabilitated, and during my visit in the spring of 2015 a two-story underground car park was under construction. In addition, a dino theme park opened in the woods adjoining Râșnov Citadel in 2015.

ISR: Thomas, which of your elevator models was chosen for Râșnov?

Thomas Müller: The local authority chose our Comfort model, which is ideal for outdoor locations and comes with a number of attractive features. It is available in versions for between four and thirty passengers and offers barrier-free access. The Râșnov Citadel elevator carries twenty standing passengers. For the design and interiors of the cars, the focus was on functionality and vandal-proof solutions. The elevator is a sturdy, weatherproof design requiring little maintenance and is naturally compliant with the relevant safety codes and standards. Our inclined elevators are suitable for automatic operation, but in Râșnov the bottom station is manned. We also offer extensive training to ensure that maintenance can be performed by local businesses. In addition to the Comfort elevators, we also have a model for all indoor applications by the name of Intra and a simplified mini version for outdoor locations (for up to four passengers) called Piccolo, which is ideal for private properties and inaccessible slopes. With this product portfolio, we can say we have the right model – offering absolute reliability – for every requirement.

ISR: Thomas, what do you like so much about inclined elevators?

Thomas Müller: Inclined elevators fascinate me because they look so simple but in fact are challenging products that call for real knowhow and lots of experience, especially in view of the fact that they are year-round transportation systems offering outstanding availability. I enjoy developing and producing a niche product that is a little bit out of the ordinary. Also, our international orientation brings us into contact with people from a variety of countries and cultures. I twice visited Râșnov, for instance. That is a profitable experience and something I would not want to miss.

ISR: Thank you, Thomas.

Claudia Mantona

PHOTOS: INAUEN SCHÄTTI AG (2), C. MANTONA (1)

From conveyor lift manufacturer to all-year leisure facility provider

SUNKID The Austrian company, which is represented by its partners in Eastern Europe, too, has been on the market for twenty years now and, with more than 3,000 installations to its credit, is the specialist for outdoor conveyor lifts. Sunkid has also become a competent partner in the design of leisure parks.

In the last twenty years, over 3,000 Sunkid Conveyor Belts have been installed in more than sixty countries. The conveyor lifts are targeted at all users in winter sports.

With the Family Rides Sunkid rounds off its offer as a year-round supplier.

What has made Sunkid the market leader in the field of conveyor lifts, with a reported 70 percent share of the global market, is the fact that it offers one-stop shopping for all stages of the production and installation chain. That means customers have just one partner to deal with, from the initial talks to final commissioning.

SUNKID CONVEYOR BELT LAUNCHED IN 1996

In the early years, the Conveyor Belt was designed for "baby lifts". But the enormous advantages of this new type of lift soon became clear, and the installations grew longer and longer and were equipped with more powerful drives and the level of comfort increased. In the meantime, the Sunkid Conveyor Belt is available in lengths of up to 250 m (with canopy) or even 400 m (for indoor skiing facilities). And the high-speed moving carpets now travel at up to 1.2 m/s (0.7 m/s for standard models). The range of applications of the conveyor lifts has also grown over the years: Originally intended for use by kids' classes in ski schools, Sunkid Conveyor Belts are now to be found in various functions and locations in the ski area, e.g. as the fast track from the car park to the cable car, for convenient access to a mountain lodge and as a link between two lifts on the slopes.

PHOTOS: SUNKID (5)

Sunkid also has four ski tows in its product portfolio.

Sunkid's summer tubing installations are now popular in many countries worldwide.

SUNKID'S SUNNY STUFF

In the meantime, Sunkid is enjoying a further success story with its Sunny Stuff line of products. Apart from various accessories for ski schools, ropeway operators are also using the wide range of products to make their ski areas more child-friendly. One item in the Sunny Stuff range is the Original Sunkid Rotondo Carousel. With reference to various copies that have appeared on the market, the people at Sunkid point out that the copies may be similar in looks but in terms of engineering the Original Sunkid Rotondo Carousel remains "the benchmark for quality and reliability".

In addition to the Conveyor Belt and Sunny Stuff line of products, Sunkid also have a successful range of four ski tows, which are used not only in beginners' areas but also as links within the ski area.

SUNKID'S SUMMER OFFERING

In the last few years Sunkid has developed into an all-in-one company with all-year products for leisure and theme parks. So its target groups now include leisure park and swimming pool operators, hotels and local authorities as well as ski schools and ski areas. **CM**

Fantastic ride plus high standard of safety

WIEGAND 1975 saw the opening of the first Wiegand summer toboggan run. That laid the foundation stone for the company's rise to become the world market and technology leader in the field of summer tobogganing.

Over 240 Wiegand summer toboggan runs are now in operation worldwide.

Over the years, Wiegand has constantly expanded and improved its product portfolio. In addition to the classic flume-type toboggan track, Wiegand's rail-mounted all-year Alpine Coaster has proved a bestseller since 1997, while its electrically powered Bobkart is the ideal solution for flatter terrain. Other highlights from the company's range include children's, event and dry slides manufactured in stainless steel to virtually every conceivable design.

VISITOR TOTALS CONTINUALLY GROWING

Wiegand has satisfied customers all over the world: "With one year of operation now behind us, the Cranmore Alpine Coaster greatly exceeded our expectations. Additionally, Wiegand installed the ride ontime for our grand opening! Skiers and non skiers love it in the winter, and in summer we now have a marquee attraction that has helped us launch a successful year-round business model. It's an attraction for all ages and abilities that has widened our customer base demographic."

This endorsement by Ben Wilcox, President and General Manager of Cranmore Mountain Resort in the USA is echoed by many other ski area operators in America and Europe.

As their books show, their visitor totals continue to grow, with customer interest also buoyant in the quieter months.

UNIVERSAL APPLICATIONS

Ski areas are not the only successful locations for the Alpine Coaster. In June of this year, for example, an Alpine Coaster was opened to the public in Slideland on Lake Lipno in the Czech Republic. A summer toboggan track of the flume type has been a successful attraction there since 2005, and the operator saw an urgent need to extend the offering for the many holiday makers and day trippers.

The new installation is 750 meters long and in part runs parallel to the summer toboggan track. The system features lockable safety belts, eddy current braking at the end of the track, three loops (including a holding loop) and a parking facility for the sleds. In addition to all-weather capability, comfort and safety have proved the keys to success, and Wiegand has continually set new standards to meet the growing demands of the market. That now includes optional front and rear lighting for the Alpine Coaster sleds as a prerequisite for night rides, with the rear light doubling as a brake light.

SAFE AND EASY

The new curved brake levers are designed for easy operation and maximum safety without a change of position on the part of the rider, which is an advantage for smaller persons in particular.

Another key feature is the use of locking safety belts and ALR (automatic locking retractor) seat belts. The safety belts lock automatically so that the lock cannot be opened and the belt released during the ride. Only on arrival at the finish does the lock automatically open. The ALR belts lock automatically at the set position. Once locked, the belt cannot be extended any further until it has first been fully retracted.

The Wiegand Alpine Coaster permits the rider to play an active part

PHOTOS: WIEGAND (2)

in piloting the sled by controlling the speed. That is what makes this summer toboggan system so attractive. With this individual control feature, however, there is a risk that riders will overestimate their abilities and make poor judgements. To solve this problem, automatic distance control has been introduced. The electronic system employs magnetic eddy current technology, has no wear parts and works in all weathers. Sensors and wireless technology are used to determine the position of each sled and check it against those of the sleds in front and behind. If the distance is found to be less than the permitted minimum of 25 m, the following sled is automatically braked and its speed reduced until the minimum distance to the sled in front is restored. The distance control system also serves as a limit brake for a maximum permissible speed of 40 km/h and as an end of track brake.

There have been no collisions on any of the tracks fitted with the distance control system.

In spite of all the safety features incorporated in Wiegand's summer toboggan runs, riders still have a duty to look ahead and act responsibly.

The Alpine Coaster that opened in Slideland on Lake Lipno in the Czech Republic in June

FILLING THE GAP BETWEEN ROPEWAY AND CONVEYOR

A few years ago, Wiegand introduced the Wie-Li® as a feeder or tourist ride installation. It is available in reversible and continuously circulating versions, with trains or single cars, and is suitable for a wide variety of applications, from ski jumps to leisure parks.

Although transport capacity is not so high, it fills the gap between ropeways and conveyor systems and has the advantage of outstanding performance in strong winds.

Wiegand is a family business with over forty years of manufacturing and operating experience. Today more than 240 summer toboggan runs in the classic flume design and over 200 Alpine Coasters are in use worldwide.

The company has over 250 employees at its headquarters in Rasdorf and has established affiliates in China and the USA so as to consolidate its leading position.

Snow guarantee, efficiency and all information rolled into one

KÄSSBOHRER SNOWsat on the fast track in Eastern Europe, too

The real potential in the field of slope and fleet management proves its worth under difficult conditions. Little snow and last season's warm temperatures therefore inspired many ski resorts to invest in SNOWsat. The result is rapid market development, with 30 new customers, and 170 newly installed fleet management and 85 snow depth measurement systems reported from last season. Meanwhile, 60 ski resorts and nearly 350 vehicles have been equipped with SNOWsat - in eleven countries all over the world. And a lot of positive feedback from the ski resorts speaks for itself. At present SNOWsat is already busy installing for the coming season, including in Poland and Slovakia.

For almost 50 years, PistenBully has been known as a reliable partner in the field of slope grooming and management. It therefore made sense to offer a convincing slope and fleet management system in addition to PistenBully. SNOWsat is technologically advanced, easy to operate and user-friendly. It goes without saying that they listen to users, always keeping an eye on the varied and special needs of the ski resorts, and further develop the systems accordingly – for there is no standing still for SNOWsat. Since last season, it has been possible to exchange real-time data between vehicles including snow depth data, winch rope, machine position and lane. For the fleet management system, a new hardware generation is now available, supporting all vehicles in the ski resort including snowmobiles etc. This naturally includes the option to record and evaluate the motor as well as selected CAN data of all snow groomers regardless of the brand

Moreover, new statistical functions are now available. For instance, users can generate, evaluate and export optimized inquiries customized to their needs. And SNOWsat's designers are constantly working for still greater ease of use.

In addition to a high-quality product, SNOWsat also offers the corresponding service and support, as is usual with PistenBully. SNOWsat is expanding these facilities further as well, and more than twenty employees are now involved with SNOWsat.

Currently, work is in full swing on numerous installations for the new season, e.g. in Gstaad, St. Moritz, the ski resorts of Skistar AB and – as the latest addition – Soelden, where the entire fleet is being equipped with SNOWsat.

Touchscreen operation for the SNOWsat system in the driver's cab.

PHOTOS: KÄSSBOHRER (2)

With the fleet management system, which is used to record and evaluate various pieces of information for all the resort's vehicles, a black box records vehicle data and transmits it via WiFi to a server in the resort.

REACHING OUT TO EASTERN EUROPE

SNOWsat is also being installed for the coming season in its first ski resorts in Eastern Europe. The TMR Group, one of the largest ski resort operators in the region, has ordered five SNOWsat vehicle systems in addition to five new PistenBullys. The systems will be used from this winter onwards in the TMR resort at Jasna in Slovakia. Furthermore, Białka Tatrzańska - Kotelnica in Poland, one of the largest and most popular of the country's ski resorts, is now using SNOWsat, too. The decision was taken very quickly following an intensive briefing on theory and practice at Zugspitze. Eleven vehicles soon had the fleet and snow management system on board, including nine with snow depth measurement as well.

Individual operator trai

PRINOTH A huge wealth of knowledge and experience

The Prinoth team has a huge wealth of knowledge and experience.

Prinoth helps customers improve their efficiency in groomer operation.

TRAINING SESSIONS FOR DRIVERS

Prinoth ("Your challenge is our passion") is putting its long years of expertise into a driver and thus slope quality improvement program, offering a targeted transfer of knowledge in theoretical and practical matters and driving skill enhancements in one-to-one training sessions.

CUSTOMIZED TRAINING FOR DRIVERS

Prinoth's driver training is focussed on the driver and the snow groomer. The theoretical and practical elements target a specific area of use and are geared entirely toward customers' priorities. Without losing sight of the sustainability issue, the focus is on optimizing users' methods of working with each vehicle, regardless of the make and model. Prinoth is offering to come out and train drivers on site, i.e. on the slopes and in their own vehicles, in a program that could hardly be more specific to the individual.

A CHANCE TO LEARN FOR EXPERTS AND BEGINNERS ALIKE

Prinoth's individual operator training is aimed at beginners as well as experienced drivers. The entire training course targets their specific needs taking account of their current levels of knowledge and skill.

PHOTO: PRINOTH

ning

THE FOCUS IS ON THE FOLLOWING:

- Optimizing methods of working
- Detailed training on the vehicle, controls and daily maintenance
- Tips and tricks for working on the slope
- Improving efficiency and effectiveness

CLEAN MOTION - WHAT PRINOTH MEANS BY SUSTAINABILITY

- Fuel savings
- Careful handling of the vehicle
- Avoidance of damage to vegetation

LEARNING FROM BEST PRACTICE

- New drivers can be brought up to standard in a very short space of time.
- Experienced drivers can be trained quickly and easily in the use of new vehicles and new technical features.

With over thirty years of practical experience in all manner of ski resorts and at a wide range of competitions and major events, the Prinoth team has a huge wealth of knowledge. They are familiar with every vehicle, regardless of the make.

Economic solutions for special routes

SUPERSNOW **Diversity in the types of ski resorts and trails is a big challenge for producers of snowmaking systems.**

The goal of every manufacturer is to make the product that meets the wide-ranging needs and expectations of all customers, and that includes the smaller operators, too.

The needs of small customers:

- purchase with limited capital outlay
- low operating costs
- low maintenance costs
- mobility
- easy handling in difficult weather conditions
- efficiency, i.e. large amounts of snow produced at the lowest cost
- ease of transport and assembly/disassembly on the slopes

The perfect solution for this large group is a manual snow gun with a wheeled carriage. The Supersnow offering includes two models: the 600 ECO (also with integrated high pressure pump) and the 600 M.

600 ECO – EXCELLENT SNOW FOR LITTLE MONEY

The 600 ECO has been reduced to the essentials with regard to the appearance of the barrel and upper frame, but the compressor and water unit perform very well in even the harshest winter conditions. The snowgun is an unassuming design, but the solutions inside are a powerful argument: Every year the model attracts more and more customers thanks to its excellent performance and trouble-free operation. Despite the low-budget design, the 600 ECO conceals a polished water unit with four manual valves for switching the individual sections on the ring. The 600 ECO offers 15 output settings, which brings it close to the performance of automatic guns. The water unit is equipped with a slotted filter, which prevents contaminants in the water from reaching the water nozzles. The filter is 560 mm long, with a gap size of 150 microns and surface filtration up to 1,362 sq.cm. The filter used is particularly convincing in terms of durability and ease of cleaning / maintenance.

600 ECO SNOWGUN WITH INTEGRATED MP 200 MOBILE PUMP

This model came on the market in 2015 as combination of two devices: a pump and a snowgun on a single carriage. Lower production costs due to the reduced number of parts used influence the price of the product accordingly, and it has proved very attractive to many resorts. This is a 2-in-1 solution and can be considered a new hybrid. Transport and handling are significantly simplified compared with separate units without changing the parameters of the MP 200 pump and the 600 ECO snowgun.

600 M – PURE PLEASURE

This is a more aesthetic version of the 600 ECO. The fairing on the barrel and upper frame makes the snowgun an eye-catcher and gives it the look of an automatic. In addition, the 600 M in the basic version has an indicator light on the barrel and a swivel hose connector to permit free barrel movement without risking a tangled hose. As there is no change in the length of the hose, the barrel turns easily during operation with less physical effort. At 18.5 kW, snowgun power consumption is accordingly lower than with the 600 ECO for the same performance. Its weight has also been reduced. The 600 ECO uses a smaller filter with a larger gap to optimize the filtering process: length 234 mm, gap size 350 microns, filtration surface 518 sq.cm.

WATER RING WITH TWINC NOZZLES

The 600 ECO and 600 M have the same number of nozzles and nucleators on their rings. For several years now, Supersnow has been using its proprietary TwinC ceramic nozzles with an abrasion resistance that ensures constant performance characteristics for many seasons – thanks to an innovative ceramic body, which has a high resistance to abrasion caused by the flow of water contaminated with particles of sand and other precipitates that the filter fails to trap. A ceramic insert also permits accurate control of the flow of water for the optimum angle of the spraying – even after several years of operation.

MP 200 MOBILE PUMP

Ski resorts often face the problem of a lack of snow at certain points on the slopes. Sometimes the terrain does not permit the installation of conventional snowmaking components because of problems of access. In such cases, a mobile pump is a good solution. Installed on a wheeled carriage with support legs, the pump comes with a capacity of 15, 22 or 30 kW and can be used with up to four snowguns. In combination with Supersnow mobile snowguns, this is the perfect solution for cross-country trails. Its compact size permits rapid positioning for continuous operation. The Supersnow mobile pumps also have a sensor at the inlet for protection against dry running, an outlet-mounted regulating valve and an outlet-mounted 60 bar pressure gauge.

In summary, it can be said that the 600 ECO and 600 M snowguns are ideal for winter resorts where snowguns have to be moved around, including cross-country ski trails and snow parks. In view of their excellent cost-performance ratio, they constitute an investment that quickly pays off.

600 ECO

ECO with integrated mobile pump MP 200

600 M

MP 200

PHOTOS: SUPERSNOW (5)

Fully automatic snowmaking in a new perspective

DEMACLENKO Snowvisual – the control software for fully automatic snowmaking systems

Demaclenko has developed a special software by the name of snowVisual for controlling snowguns, pump stations and cooling towers.

EFFICIENCY MEETS PERFORMANCE AND DESIGN

Snowvisual is the product of many years' experience and expertise covering everything to do with snowmaking technology and automation. Snowvisual minimizes the amount of resources used while maximizing snow volumes without compromising the quality of the snow produced. This has been done by enhancing and fine-tuning its efficiency and automatic operation over the years.

Full automation allows snowmakers to make efficient use of the increasingly short windows offering suitable weather conditions. As soon as the operating conditions required for snowmaking are fulfilled, Snowvisual uses its activated automatic system to start up the snowmaking system efficiently in the blink of an eye.

SNOWVISUAL: ONE PLATFORM, VARIOUS MODULES

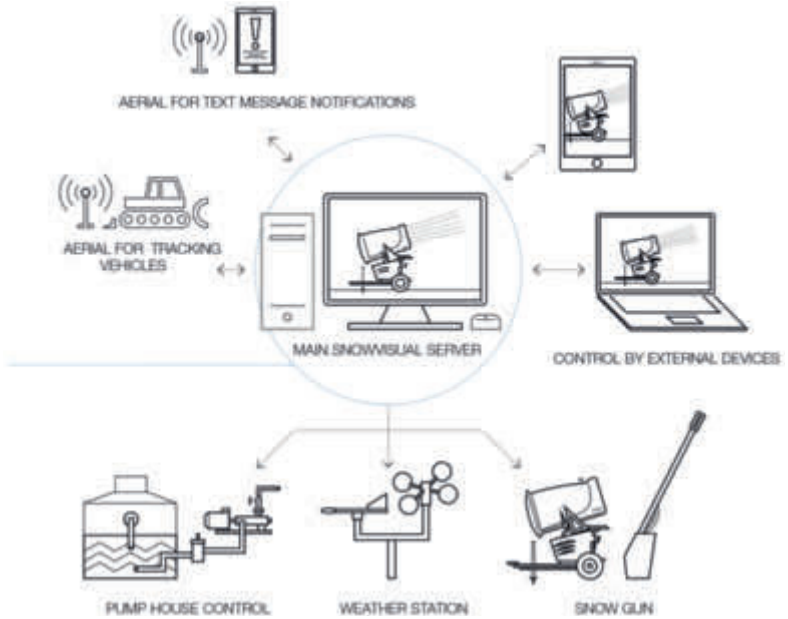
Snowvisual is the core element in the snowmaking system. Thanks to its modules, which are the result of many years' ongoing development, it can be aligned precisely with the requirements and circumstances of the mountain and its existing systems. With Snowvisual, it is possible to integrate existing snowmaking equipment and combine it all in one compact system.

Snowvisual comes with a variety of communication drivers for use with standard industrial protocols (Modbus, TCP/IP, Modbus RTU, Profibus DP, etc. as standard interfaces), enabling external systems and devices to be integrated easily. To guarantee maximum reliability and ultra-fast communication, serial field communications (optical fiber, cable, or wireless technology) are spread across multiple communications servers. Large data transmission is mainly handled via optical fiber/Ethernet, while special copper cables are primarily used to communicate along new field lines for snow guns. Existing or other large areas can be connected using wireless or radio technology. Demaclenko's technicians produce the ideal design and configuration for this process even before the planning stage is complete.

As the name suggests, Snowvisual is also strong on visualization.

RESOURCE MANAGEMENT

Handling resources correctly is extremely important for both operators and company management. Using water, air, and electricity as efficiently as possible helps to cut



Snowvisual's modular system in diagrammatic form

PHOTOS: DEMACLENKO (5)

costs and optimize snow volumes. The key to all this is resource management, which is largely provided via the following functions: reporting, rate of water consumption, snow depth measurement and priority control. The targeted use of resources forms the basis for an extremely cost-effective snowmaking setup without compromising on quality.

Snow production volume: In the detail mode, the current rate of water supply to the pit is displayed. This function allows operators to identify where more snow needs to be produced and where minimum coverage or the target has already been achieved.

CHARTS AND STATISTICS

Data analysis allows snowmaking system operators to access the right information at the right time and is the main prerequisite for increasing productivity and for identifying any irregularities quickly.

Production report: Even in the standard version of Snowvisual, customers are able to calculate consumption data for all their snow guns and pits over any desired period of time. Automatic daily reports can also be generated (and exported as CSV or PDF files).

New! Snow depth measurement: The latest version allows customers to set up an interface with their snow depth measuring system and display the corresponding data. The XML import tool prepares the XML export data from the snow depth measuring system and makes them available in numerical and chart form.

USER-FRIENDLY INTERFACE

The control software is simple to operate and has a user-friendly interface. With its intuitive and ergonomically designed graphic display, the system provides easy access to all relevant details and offers all the information required for snow production.

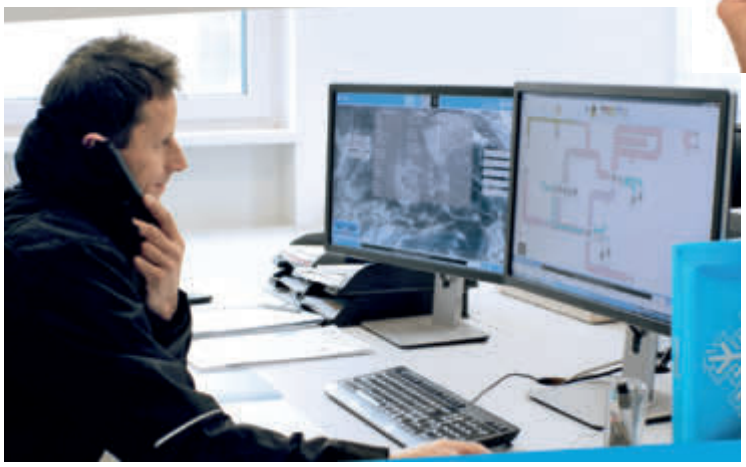
The software can be operated in one of two ways. The first is the general operating mode, which features fully automatic system startup. The second is the semiautomatic mode, in which the snow guns and pumps can be started up and monitored separately.

DEMACLENKO'S SERVICE OFFERING

Demaclenko offers a comprehensive service package that makes life easier for snow gun operators. Its service team provides round-the-clock support for efficient system operation in consultation with the dealer through either remote maintenance or onsite assistance.

Resource management is one of the keys.

User-friendly interface



Demaclenko's service offering makes life easier for operators.

The pioneering era in winter sport tourism is over

BOZEN/BOLZANO FAIRGROUNDS Tourism continues to grow worldwide, even though businesses have to constantly adapt their products and services, for example in response to the very real challenge of climate change for the winter sport industry.

Prowinter International Trade Show for Rental, Equipment and Technology for Mountain Sports

The world of mountain tourism needs to find answers to a range of questions. How are the Alps and winter sports presented in the media today, and how will the markets react? With more and more tourists and also local residents turning their backs on skiing and skiing holidays (above all as a result of demographic change), which sports and leisure activities have an attraction for customers whose lifestyles vary so strongly by target group and source country? What influence will the dynamic triggered by today's new markets have? What kind of model of development is needed for a consensus to be reached between the various actors in tourism and the local populations?

At this year's Prowinter International Trade Show for Rental, Equipment and Technology for Mountain Sports, the first step was taken towards such a reorientation. The Promountain Bike Shop Test, for example, was a significant summer sport addition to the exhibition area, while the European Academy of Bozen/Bolzano (EURAC) organized a conference entitled "Alpine Destination Leadership #2: Perspectives of Integrating Destinations".

According to EURAC's Professor Harald Pechlaner, what is needed is process and product innovation involving organizational models geared to the individual destinations, the number of their actors and the different seasons so as to create an all-season offering that encompasses summer and winter tourism. A further requirement is new governance formulae with changes in legal form and financing and a harmonized communication strategy. Pechlaner discussed two proven management systems: the resort (with a vertical structure) and the community (with a horizontal structure), in which the various local actors work together with the help of active networking to shape the identity of a single tourism destination.

A good example was provided by John Rae, Manager of Strategic Alliances at the Resort-Municipality of Whistler in British Columbia (Canada), who presented "The Whistler approach to the integration of mountain destinations: cooperation as a success factor". According to Rea, the requirement here is a clear understanding that everyone – each according to their means – must invest the time needed to develop processes for the exchange of ideas, participation and cooperation.

Integrated development is a real challenge for mountain tourism. "All tourism businesses," said Pechlaner, "must work to create new infrastructures and new services for the new markets – and find new forms of collaboration and show a willingness to combine their forces in ways that cannot necessarily be achieved through mergers."

At next year's Prowinter, which will be held on April 19 - 21, there will be a focus on additional measures needed to achieve the common goal of integrated management combining summer and winter tourism and targeting a 360° tourism that is in line with current market developments and corrects the seasonal imbalances that impose such a burden on businesses and their sales channels.

PHOTO: MESSE BOZEN

IMPRINT

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Great results

NEVEPLAST **A performance boost with Neveplast**

Neveplast is achieving great results with its Sport line. Many projects have been carried out up to 2016, one of which makes the company very proud. The Swiss champion Carlo Janka is now training on an installation specifically designed by Neveplast to improve his performance on exiting the gate. Comprised of two starting ramps of 80 meters each, the Neveplast slope will help Janka save hundredths of a second at the very start of the race, which is fundamental for victory in skiing. Special consideration was paid to the design, with a huge Swiss flag created on the slope using Neveplast modules. It is not the first time that Neveplast has been chosen by ski champions to deliver an alternative to snow; the famous Austrian ski-crosser Katrin Ofner asked for a similar solution last year. The Neveplast technology permits the athletes to work out 365 days a year without having to travel and to do so under the best possible conditions, reproducing the same results and experiencing the same emotions as on real snow.

Swiss champion Carlo Janka training on an installation specifically designed by Neveplast

PHOTO: NEVEPLAST (1)

The leading platform for tomorrow's markets

INTERALPIN From April 26 to 28, 2017, the leading international trade fair for alpine technologies will again be the world's platform for new products and innovations from the ropeway industry, attracting visitors from about eighty countries. Almost one fifth of trade visitors now come from Eastern Europe.

Big crowd at Interalpin 2015

PHOTO: C. AMTMANN

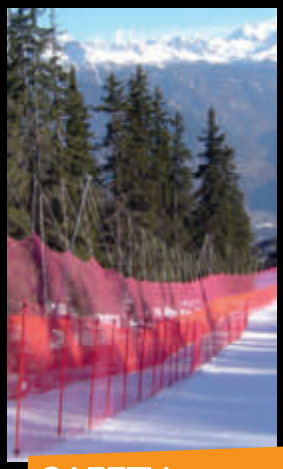
From the High Tatra in Poland and Slovakia and Sněžka in the Czech Republic to the Balkans in Bulgaria and the Carpathian Mountains in Romania, Eastern Europe is now an attractive growth market for the ropeway industry. That has long been recognized by the world market leaders Doppelmayr and Leitner, who have already built several ropeway installations there. "We are delighted to see growing numbers of trade visitors from Eastern Europe at Interalpin," says Christian Mayerhofer, managing director of the Innsbruck Fairgrounds (Messe Innsbruck), and he continues: "They are not only from the big mountain regions but also from cities where public transport solutions are on the agenda." At Interalpin 2015, Eastern Europe accounted for just under ten percent of the visitor total.

FULL OFFERING

What began as a product presentation in the framework of a ski piste conference held in 1974 has evolved over the decades into the industry's leading and most popular international trade fair. Interalpin, which is held every two years, has continually grown its exhibitor and visitor totals and established itself as the prime venue for the ropeway industry, attracting companies and trade visitors from more than eighty countries. The 650 international companies at the trade show exhibit new and innovative products and services for the entire ropeway industry, for mountain development and management, for snowmaking and winter services, for mountain safety and rescue services, and for related industries. In addition to its full winter offering, Interalpin is also a well established platform for all aspects of summer mountain leisure and tourism and has now added a third focus to take account of the latest developments such as the growing role of ropeways in urban transportation systems.

MODERN ACCESS CONTROL

Interalpin 2017 will mark the debut of a new on-line ticketing, web sales and access control system at Innsbruck Fairgrounds. Visitors can now purchase tickets for Interalpin 2017 on-line in the form of a QR code for smartphones or printing for fast admission to the trade show. The 21st edition of Interalpin will be held at Messe Innsbruck from April 26 to 28, 2017.
www.interalpin.at, WEB TV Kanal www.interalpin.tv



SAFETY

OUTDOOR LEISURE

SKI LIFTS

SNOWMAKING

MND GROUP

One partner, many solutions

Developing and designing **innovative solutions** for **mountainous areas**

MBS Mountain innovation and safety design

nas Natural Hazards Control Solutions

EHS Entreprise de Travaux Spéciaux

techfun

LST ropeway systems

SUFAG By MND Group WE KNOW SNOW

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