

KEY SUCCESS FACTORS OF POSTOJNA SHOW CAVE DEVELOPMENT IN ITS 192-YEAR-LONG HISTORY OF TOURISM

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Abstract: The Postojna Cave is an interesting case study example of a show cave which has gone through numerous changes during its 192-year-long history of tourism. The right approach to its development – with the key success factors – has brought excellent results. Its success is the result of a well thought out development strategy combined with the well used natural resources.

The advantageous geostrategic and historical position of Postojna contributed to the development of the necessary traffic infrastructure of the area. The Cave was well-known and well-visited even prior to becoming a major tourist Slovenian attraction, however, with the implementation of the basic infrastructure inside the Cave and introduction of visitor friendly technologies, the number of visitors increased rapidly. Moreover, the pleasant microclimate and accessibility of the Cave also contributed to its growing popularity. The tourist guide service was organized very early and great emphasis was put on the training of the guides and foreign language knowledge. The Cave management was aware of the importance of publicity. They advertised the Cave worldwide in guidebooks of the 19th century. The management knew how to adapt quickly to visitors' needs and requirements and, thus, promoted the development of tourist infrastructure inside the Cave, outside it, in the town and, finally, in the whole region. An important factor in promoting the Cave was associating with different tourist agencies, trade unions and joining other international organizations. A significant role in this was played out by the Karst Research Institute as well. During the long history of tourism of the Postojna Cave, different models of cooperation with the local community have been developed, and this has shown that the Cave cannot be operated separately from its local environment.

Keywords: show cave, tourism, key success factors

1. GEOSTRATEGIC POSITION OF POSTOJNA

Postojna is located nearly in the centre of the Republic of Slovenia, which covers an area of 20,273 km² and has a population of 2 million people. 46 % of the area is covered by karst and 62 % by forests. Not surprisingly, last year, a ten thousandth cave was discovered in Slovenia. Among the ten thousand, 26 caves and 3 mines (Lead Mine Mežica, Coal Mine Velenje and Mercury Mine Idrija) are open to public.

The town of Postojna is located on a strategically very important crossroad of traffic links connecting Eastern and Central Europe

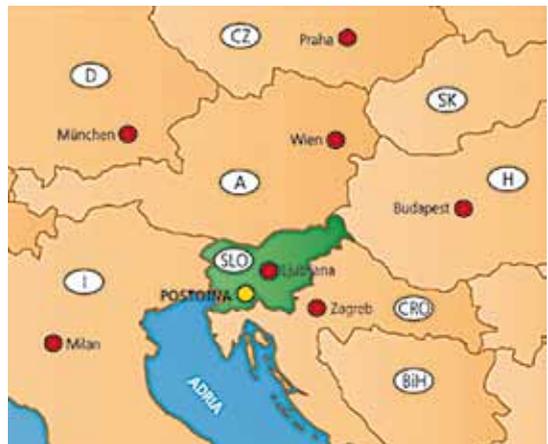


Fig. 1. Location of Slovenia in Europe.

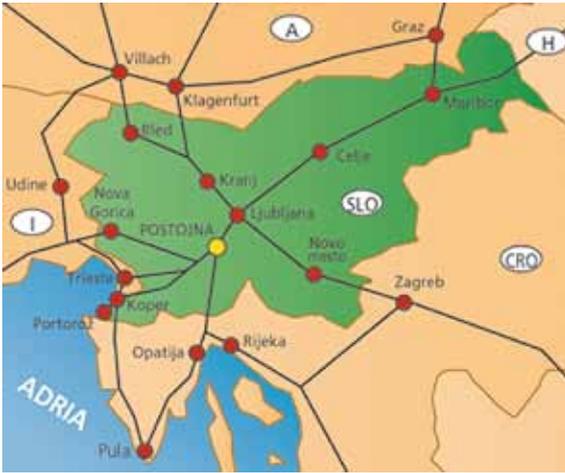


Fig. 2. Location of Postojna in Slovenia.

and the Adriatic and Western Europe, respectively. It is situated in the Pivka Valley, which opens into the neighbouring regions. In the north, between Hruščica and Javorniki, 612 m above sea level, there is a ridge with Postojnska vrata (Postojna Gate), a passage leading towards the Ljubljana Basin, Munich and Vienna into Eastern and Central Europe. The second passage is in the north-eastern part, near Razdrto, 580 m above sea level, connecting Postojna with Trieste, Koper and Slovenian and Croatian Istria, and through the Vipava Valley and Gorica with Western Europe. In the southwest and the south, there are several passages leading from Pivka towards the Rijeka Valley, Istria and the Kvarner Gulf; most typical of those are the ones near Šembije and Hrastje.

The routes and paths crossing the Pivka Basin were used in the prehistoric times already. The first roads were built by the Romans. The remains of a Roman road can be seen near Razdrto. There was another one between Primož and Šilentaber pri Pivki in the Košanska Valley. There were Roman settlements on Sovič nad Postojna. The Predjama Castle and the ruins of Sovič date from the feudalism period. Most villages were mentioned as early as the 15th century, when Postojna was mentioned as a square. Postojna was proclaimed a town in 1909 (Kovačič 2004:13).

Due to its extremely important geographical location, the area belonged to the Austro-Hungarian Empire before the World War I. In

the period between the WWI and WWII it belonged to Italy and after the WWII it became part of former Yugoslavia. On 25th June 1991, when Slovenia declared its independence, the area became part of the Republic of Slovenia.

In the areas north and south of Postojna, several different defence lines and numerous military establishments were built under the rule of different countries and governments.

2. DEVELOPMENT OF ADEQUATE TRAFFIC INFRASTRUCTURE IN THE REGION

During the Austro-Hungarian rule, the empress Maria Theresa assigned Postojna a role of the regional centre due to its geographical and strategic position. One of the factors which made Postojna's location so advantageous were the good regional roads from Ljubljana to Postojna, and through Razdrto to Trieste. In the 18th century, many people earned a living by transporting goods by horses and carts (so called 'furmanstvo'). 'Carters' inns, which offered looking after the 'carters' and their beasts of burden, were established along the roads in the direction of two major ports, Trieste and Rijeka. A significant postal connection between Trieste and Vienna also ran through Postojna, where there were inns which specialized in maintenance of postal carriage horses. These services are considered to be the beginnings of tourist services for travellers.

In 1857, the railway line connecting Vienna and Trieste, which ran through Postojna, was completed and this caused the disappearance of services such as horse and carriage transportation (furmanstvo), which were finally abandoned after WWII when the border between the zones A and B (dividing Italy and Yugoslavia) were set. During this period, the numerous inns started to lose business and closed down. At the same time, however, the number of visitors of the Postojna Cave started to increase with the so-called resort tourists, who came to the area in the summer looking for rest and fresh air. The air owns its freshness

mainly to the local wind called 'burja', which begins to blow above Postojnska vrata and blows southwards over all Karst region, the Vipava Valley and all the way across the Gulf of Trieste to Grado.

The third landmark in the history of the Cave, was the completion of the motorway from Ljubljana, through Postojnska vrata to Razdrto, in the 1970s. Recently, the motorway has been connected to the Italian motorway A4 in the west, with Austria and Hungary in the north and northwest, and in the southwest, through Croatia and Serbia towards Romania, Bulgaria, Greece and Turkey. For these countries, Postojnska vrata represents virtually the only passage via landtransport towards the Western Europe. There were streams of tourists from Central Europe towards the Kvarner Gulf and the Dalmatian islands and Istria, Grado and Venice in Italy and, thus, the number of potential visitors of the Cave grew. By now, the double track railway, modern motorway and three local roads run through Postojnska vrata. The amount of traffic on these roads and railway in both directions importantly influences the number of visitors of the Postojna Cave.

After the completion of motorway through the Kanal Valley connecting Germany and Austria through Klagenfurt, Villach, Arnoldstein, Udine and Venice in 1985 and the completion of motorway connecting Vienna, Prague, Bratislava and Budapest through Croatia in the directions of Čakovec, Varaždin, Zagreb and Karlovac, through Plitvice towards the Adriatic coast, the Kvarner gulf and Istria, there was a slight decrease in number of visitors of the Cave. The number of tourists travelling through the area dropped significantly after the Ten Day War in 1991.

It took about 15 years for the numbers to start increasing again, while the freight transport increased a bit more rapidly, mostly in the directions of the port of Koper, Trieste, and Gorizia, towards Italy, Switzerland, France and Spain.

We can see just how important good traffic connections are in relation to the number of visitors of a certain tourist attraction, by comparing the Postojna Cave and the Plitvice Lakes National Park. Prior to year 1991, the number

of visitors of the Cave used to be higher and amounted to almost a million visitors per year. Nowadays, when the motorway to the Dalmatian coast runs through Plitvice, the numbers have changed. The Plitvice National Park is visited by almost a million people a year, while the Postojna Cave is now visited by half a million tourists a year.

3. ACCESSIBILITY OF THE CAVE AND BENEFICIAL MICROCLIMATE

A cave is usually defined as an underground cavity or a hole with a more or less vertical entrance. The entrance into the Postojna Cave, however, is different. The position of the Cave is almost horizontal and the system includes five caves, namely, the Postojna Cave, the Otok Cave, the Magdalena Cave and the Black Cave which make for 20 kilometres of underground passages. Add the subterranean Pivka River and the Mountain Cave (Calvary), and the length of underground passages amounts to almost 27 kilometres. The experts explain that these passages, today admired by visitors, are old riverbeds of the Pivka River, which later submerged 25 metres further underground, approximately 3 million years ago. The passages have been flooded at least once or twice since, the results of which can be seen as special calcite formations and the so-called rings around the cave pillars. These additional layers are easily visible next to the entrance into the Biospeleological station. It is due to the horizontal position of the cave system that people had discovered it so early, which can be seen from the visitors' signatures on the walls of the cave near the entrance, dating back to 1213. And let us just mention that the Pivka River, on its 6,500 kilometre long way to the Black sea, has several different names.

4. EARLY DEVELOPMENT OF VISITOR FRIENDLY INFRASTRUCTURE AND APPLICATION OF MODERN TECHNOLOGIES IN MANAGING THE CAVES

People came to visit the Postojna Cave in the 13th century already, when it was open,

but unprotected, non-illuminated and there were no guides employed. In anticipation of a visit from the Emperor Francis I of Austria, in 1818, some local men, among them Luka Čeč, were ordered to have the section of the Cave illuminated. At some point, Čeč moved away from the group and climbed a wall leading to a passage which had previously been unknown. When he reappeared, he called out to his friends: "There is a new world here, here is Paradise!" This discovery opened the door to new underground discoveries, gradually all the way through to the Great Mountain. The following year, the Cave was already open to general public as a show cave, paths across the passages were made, the wooden bridge over the river was built, the visitors' book was introduced and visitors taken around by the guides who also took care of illuminating the cave (Borjančič 1992).

Walking through the cave was tiring. Therefore, prior to the visit by the Emperor and Empress in 1857, three sedan chairs were ordered and later carried by the porters accompanied by guides. The sedan chairs were used until 1872, when the first railway line was constructed and the tracks laid down all the way to the Great Mountain.

Anton Globočnik, who was the chairman of the Cave Board until 1885, was responsible for many innovations and improvements inside the Cave: lighting was installed in 1883, the paths to the Great Mountain improved, the cave signposting in three languages was introduced, a tree-lined avenue leading to the Cave was planted, the right side entrance was arranged and the door put up. At that time, there were carriages on the rails inside the cave which were pushed by cave guides when the cave was visited by some distinguished guests. Horses and donkeys were used for pushing the carriages with material for constructing the paths inside the caves.

In 1924, the manually operated carriages were replaced by a Montania petrol locomotive which pulled five 4-seat carriages – wagons, but that was not enough to accommodate the number of visitors. The following year, another Montania locomotive was introduced and the year after that the third one. Thus, there were three trains, with 31 carriages altogether,

which operated up to 8 times a day (Borjančič 1992).

There were a lot of improvements and developments in the Cave in the period between the two wars. Many paths inside the cave were built or reconstructed, such as artificial tunnels (1926-1927) between the Postojna Cave and Black and Pivka Caves. The works were financed by the state – Italy. The tunnels had primarily been built for the purposes of Italian army, which used them as secret passages from Italian into the Yugoslavian territory and back. The border between Italy and Yugoslavia was approximately 1 kilometre north of the entrance into the Black Cave. Besides serving the aforementioned purposes, these tunnels provided ventilation of the caves as well. Until the dissolution of Italy in 1943, the director of the Postojna Cave was professor Agnelli, who had discovered the Castellana Cave in Puglia in 1938. Later that same year, he founded the Karst Research Institute in Postojna, within the Scientific Research Centre of the Slovenian Academy of Sciences and Arts. A lot of the financial resources were provided by the state and were used for the improvements in the cave, such as renovation of the railway and installing of lighting. In 1928, the magnificent Jamski Dvorec Mansion and Restaurant were built right next to the entrance to the Postojna Cave.

After WWII, there were less visitors to the cave. However, the numbers soon started to increase again, so it was necessary to replace the old technology: the last petrol locomotive was in use no later than 1956 when it was replaced by the environment-friendly, battery powered locomotive EMAM from Milan. As the number of visitors grew, so did the number of new locomotives. In the years 1964 and 1968 The Cave Board had the 3,700metre long two-track loop railway built, which could accommodate more and more visitors. By 1978, the Cave was equipped with 12 battery powered locomotives pulling six trains which were able to seat 720 visitors and take them into the Cave every 30 minutes. Its horizontal position, the excellent footpaths covered in slip-free cement and quartz sand, without any stairs and great lighting system are all factors contributing to the fact that the Postojna show cave had become the most visited tour-

ist attraction in the former Yugoslavia and later in Slovenia, too. Those factors make the Cave accessible to visitors of all ages as well as visitors with special needs. It is possible to visit the cave in a wheelchair which is an exception among the show caves in the world.

5. EXCEPTIONAL MICROCLIMATE AND CAPACITIES OF THE CAVE

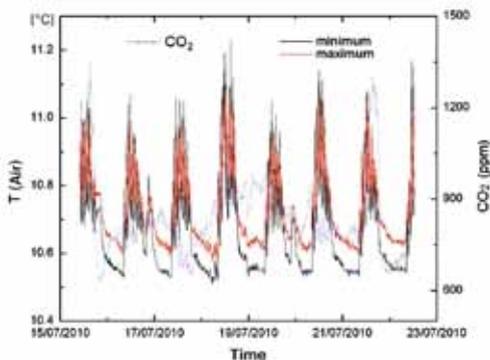


Fig. 3. Example of the increase in temperature and exhaled CO₂ during a tourist visit. Source: The Karst Research Institute, F. Gabrovšek

The third comparative advantage of the Postojna cave system is, besides its size, natural ventilation of the caves. The cave consists of three levels and is very well ventilated, thus, allowing for large numbers of visitors. The system itself has five main entrances or exits, natural airing system and ventilation through the subterranean stream of the Pivka River during the periods of relatively low level of water. When the outside air pressure is falling, the air from the cave blows out of the five exits and when the outside pressure is rising, the fresh air blows into the cave, which makes it possible for 6,000, 8,000 and even 10,000 visitors to enter the cave daily.

This exchange of pressure does not really affect the temperature inside the Postojna Cave, about 9 °C, the same as the average annual temperature of Postojna, which is situated 550 m above sea level. The relative humidity in the cave depends on the season and the amount of rainfall, and ranges between 60 % and 100 %. And it is the level of humidity that has such a beneficial effect on people with respiratory problems.

6. PROFESSIONAL GUIDE SERVICE

In order to guide and manage such high numbers of tourists, it is necessary to employ plenty of educated and trained guides. At the moment, there are 23 guides employed on a permanent basis. During high season, however, we hire over 70 guides, most of whom are students or temporary workers. The cave trains are operated by 6 to 8 train drivers, who also do maintenance and repair works during low season.

Each spring there is a compulsory training organized for the new cave guides.

Before the training, however, there is a selection process during which the candidates are tested in functional knowledge, foreign language knowledge and public speaking skills. All future cave guides need to have at least secondary school diploma, speak at least two foreign languages and have extensive knowledge of Karst, karst landforms and the Postojna Cave. As it is sometimes required of the guides to move in unsecured cave areas, they need to be acquainted with the cave etiquette and basic speleology skills.

The Postojna Cave is open to public throughout the year and there are at least three guided visits per day, at 10.00, 12.00 and 15.00, from May to September every hour between 9.00 and 17.00, and an additional guided visit at 18.00 in July and August. Out-of-hour visits are possible by prior arrangement at any time. The guided tours are available in Slovene, English, German, Italian and French and by prior arrangement in Spanish, Dutch, Russian, Croatian and Serbian as well. The guided visit lasts one and a half hours.

7. PUBLICITY AND MARKETING OF THE POSTOJNA SHOW CAVE

In the beginning of the 19th century, when the travellers started to express interest in the Postojna Cave, descriptions of the Cave were published in several international guidebooks, which was very important in terms of publicity and advertising. The descriptions included information on guided visits, entrance fees, timetables, illumination in the caves, the recommended clothing etc. In terms of promotion, the management took part in the World Fairs (Expos) in Paris, 1867, and Vienna, 1873, where

they presented the proteus (the blind amphibian, endemic to the caves). In the 20th century, many specimens of the proteus were sent to European zoos and natural science museums around the world (Savnik 1960, 107).

As long ago as in 1868, an Englishman, Thomas Cook, the pioneer of organized tourism, included the visit of the Postojna Cave in his first organized tour around Europe.

However, it was not enough to publish texts in guidebooks only, the cave management decided to advertise the Cave in popular books of that time, which were read widely, such as *The Hundred Wonders of the World (1818)* or *The Wonders of Nature and Art (1803)*, where one could read about different natural phenomena around the world. (Shaw 2010: 292)

For the purposes of promotion, the Cave Board members decided to organize an annual Whitsuntide festivity, which took place every year on Whitsun Monday in the Congress Hall (The Ballroom) of the Postojna Cave, starting in 1821.

The Cave was luxuriously illuminated for the occasion and the people danced to the sounds of several military and civilian brass bands. Special low-cost trains took people to Postojna. The trains were named Vergnügungszuge (which could be translated as Merry Trains) in 1913. There were German, Italian and Slovene people at the festivity. The cave management with Ivan Andrej Perko as manager advertised the town of Postojna and negotiated the low fares with the railway. They also offered cheap entrance fees to the Cave, for the Whitsun and the Feast of Assumption on 15th August especially, so that the less wealthy people could afford to visit it (Fikfak 2009).

In order to make the Cave even more interesting for the public, different concerts are organized in the Concert Hall of the Cave, and one of the most famous ones was the concert preformed by La Scala Milano Orchestra in the Concert Hall in September 1929, conducted by the composer and conductor, Pietro Mascagni.

8. LARGE NUMBERS OF VISITORS AND GUESTS

After the Postojna Cave had been opened to public in 1819, the number of visitors kept

increasing. In 1845 it had more than 2,000 visitors and in 1919 there were more than 10,000.

The person, whose vision of Postojna as a tourist destination was perhaps the most clear and high flying, was a Swiss man, Franz Progler. He was the one who built the first luxurious hotel – Grandhotel Adelsberghof – in 1874.

Grandhotel Adelsberghof, or Postojnski Dvor as named by the locals, was a luxurious and comfortable hotel with 65 rooms, cricket and tennis courts, electricity lighting, bathrooms with showers and a car park. The hotel, which was surrounded by the beautiful English garden, organized transfer to and from the railway station for its guests.

Postojna was famous for its climate and it was a popular summer destination for people who wanted to escape the summer heat. There were a lot of visitors from Trieste and there was even a special train connection from Vienna to Postojna. A visit to the Postojna Cave became a matter of prestige and social status. It was a golden era for restaurant and hotel owners. In 1894, Postojna was visited by 7 times more tourists than Bled, more than Lake Gardo, Bad Aussee or Villach.

However, just after the WWII, the visitors were scarce until 1960 when the number of visitors started to increase rapidly again. Two hotels in Postojna, Javornik and Tiha Dolina, which had been built before the war, were open again and there were a couple of restaurants (Jamska and Jadran) and a few inns in town.

The Kras Hotel was the first hotel built after the war and its opening in 1963 marked a new stage in the history of tourism in Postojna.

The influx of foreign currency, together with municipal funds, provided for the development and construction of municipal and tourist infrastructure.

The Postojnska Jama company funded between 70 % and 85 % of the local budget from its investments.

The growing number of cave visitors after 1974 and the increase in the number of tourists travelling through Postojna towards the seaside and back all called for development of tourist infrastructure: there had to be more parking spaces, more restaurants and accommodation capacities.

The former tourist and hotel organization POSTOJNSKA JAMA was made up of three organizational units: the Postojna Cave, Gostinstvo (Hotels and restaurants) Postojna and Skupne službe (commercial, financial and accounting service). Until the dissolution of Yugoslavia, it had 550 employees, and it was in charge of management of the Postojna Show Cave, Predjama Castle, the Cave under the Predjama Castle, Hotel Jama (A part built in 1971, B part in 1982, the swimming pool area in 1984), Hotel Kras, Hotel Šport, Motel Proteus (first pavillions built in 1958, renovated in 1984), Boarding house Erazem, Pivka Jama Camping (renovated in 1985), restaurant Jamski dvorec mansion (1928) and several canteens in Postojna. The company managed 1,260 beds and 5,500 seats in several restaurants.

as in the period before it, there appeared many who wanted to have their say and share in the management of the Postojna show cave. The company was converted into a public limited company in 1996. The major share holders were its employees and national funds. In 2003, POSTOJNSKA JAMA, turizem, d.d. was awarded a five year concession for managing the Postojna Show Cave and Predjama Cave System. The company had to pay 1,418,000 EUR of concession fee. In 2008, the company Istrabenz turizem, d.d., became the 100 % owner. Istrabenz renamed POSTOJNSKA JAMA into TURIZEM KRAS, destination management, ltd. In the same year, it was awarded the 20 year concession for managing the Postojna Show Cave and Predjama Cave System. In August 2010, BATAGEL & CO from Postojna became the owner of 74.90 % of the company, while the Municipality of Postojna has the 25.10 % share.

9. ADVERTISING AND SALES OF PRODUCTS OF THE TURIZEM KRAS D.D. (POSTOJNA CAVE)

The Postojna Cave has been one of the most visited attractions in the area for years, but now one out of five visitors decides to visit the Predjama Castle, too. There are more and more people who decide to

spend the night in Postojna and eat in local restaurants. The sales of souvenirs have been increasing. The above mentioned is the result of clever investments in advertising. As part of publicity and promotional activities, the company has been organizing different events, meetings and concerts. Promotional leaflets, posters, price lists and other printed material are available in 29 languages and distributed all over the world by different services.

The Postojna Cave is showcased at all important fairs and exhibitions for general public, workshops for people working in tourism and other promotional events around Europe. It is present on the world tourism market and sales networks of different tour operators and tourist agencies. The Cave is advertised in all available media around the world. We collaborate with over 3,000 agencies around the world. The

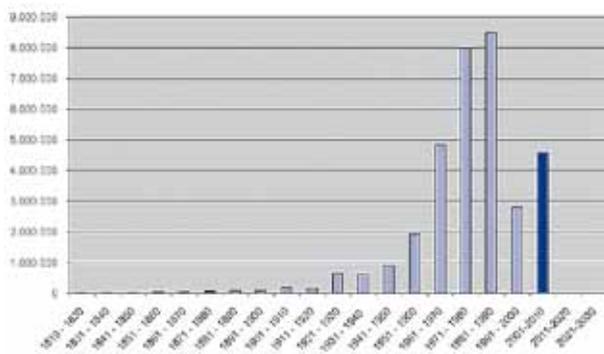


Fig. 4. Number of visitors of the Postojna Cave through decades.

The period between the years 1977 and 1990 was the period of flourishing tourism for the Postojna Cave. It was visited by 900,000 tourists per year. The largest number of tourists was recorded in 1985, when the Cave was visited by 942,256 people. The largest number of visitors in a single day was recorded on 8th July 1978, when the cave guides took care of as many as 12,025 visitors. It coincided with the spell of rainy weather in the Kvarner Gulf, Istria, Italian coast between Grado and Venice, the lakes Bled and Bohinj as well as the lakes in Austria. It means that on that day we received over 12,500 visitors who came either on their own or as guests of different tourist agencies.

In the period until the independence in 1991, THO Postojnska jama was the key element in the development of tourism in municipality of Postojna. After the independence was declared,

promotional material is delivered to over 2,500 places in the 300 km radius as we pay visits to different tourist agencies, hotels, camping sites, border crossings, tourist information centres etc. before the start of high season. We advertise on billboards, posters and banners in many tourist places. We have a well managed and attractive website with many links to other sites. We do our best in keeping the Postojna Cave the most attractive tourist destination in Slovenia.

10. FUTURE CHALLENGES

TURIZEM KRAS d.d. will soon assume the name it used to have, namely POSTOJNSKA JAMA d.d. (it was on 08. 04. 2011), as the Postojna Cave is a trademark, a landmark in Slovene tourism. The company will work towards the 10 % annual increase in the number of visitors. Great emphasis will be put on improving the quality of the services and the customer satisfaction. One of the challenges to be met in the future is the renovation of Hotel Jama, which is located in front of the entrance into the Cave. By offering more services, the company will try to transform Postojna from the transit point into a destination point.

The company will continue to invest into the cave infrastructure of the Postojna and

Predjama cave systems. The priorities include the replacement of the old lighting system with the new environment friendly light system, modernisation of the transport inside the caves, repairs of footpaths and the installation of the first purification facility inside the show cave. The guidance in the cave and marketing will be upgraded with modern interpretation techniques and tools. The goal of the company is to ensure the balance between conserving the natural characteristics of the Cave and its marketing. All activities of the Postojna Cave are subject to efficient and profitable business conducting.

The company will continue to work closely with the Karst Research Institute, which functions as a guardian of both cave systems. Their opinions and recommendations are always taken into account before making any decisions in regard with the caves. The company will continue to cooperate with international institutions such as UIS and ISCA. We will exchange opinions, expert solutions and participate in their commissions and meetings. POSTOJNSKA JAMA will cooperate with tourist agencies, tour operators, tourist organizations and institutions and work towards attracting more and more visitors, while always keeping customer satisfaction in mind.

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