



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA KOHEZIJO IN REGIONALNI RAZVOJ

Iceland
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PREDJAMA SUSTAINABLE

Challenges and solutions for high traffic loads due to visitors
to the village of Predjama

Mobility plan

IPOP Inštitut
za politike prostora
Institute
for Spatial Policies

Ljubljana, October 2022



PROJECT INFORMATION

Project	Predjama Sustainable
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Lead partner representative	Maja Piškur
Contract number	Partnership Agreement of 24/09/2021
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Introduction by the Mayor of the Municipality of Postojna

The Municipality of Postojna adopted the Comprehensive Transport Strategy in 2017. With this, we have undertaken to promote sustainable methods of mobility and provide better conditions for the balanced development and equal accessibility of all forms of transport for all citizens by investing in relevant public infrastructure. We at the Municipality are aware that sustainable mobility is also environmentally acceptable, socially just, and promotes the development of the economy.

The vision pursued within the comprehensive transport planning in the Municipality of Postojna by 2035 is as follows: "Postojna is an important crossroads for the economy, transport, infrastructure and tourism featuring sustainable links within the municipality and beyond. It is an efficient and inclusive municipality ensuring safe, connected and equally accessible transport surfaces adapted to sustainable forms of mobility. The Municipality of Postojna successfully highlights the importance of natural and cultural heritage, and provides attractively designed public surfaces for the quality of life of the citizens and a quality stay for visitors." The Municipality has defined several strategic areas of measures on its path to reaching its comprehensive transport planning vision: comprehensive planning, provisions for walking, cycling infrastructure, and gradual changes of the motorized traffic users' habits.

The adopted mobility plan for Predjama will mean getting a step closer to realising the set goals, such as improving the attractiveness and quality of life in urban areas, improving the connectivity of surrounding areas with the city, improving the utilisation of the transport infrastructure and existing links, reducing the greenhouse gas emissions and the usage of energy, as well as the improvement of transport safety. By implementing the measures from the mobility plan, we want to reduce the number of personal vehicles on the Postojna–Predjama route, as well as increase the utilisation of public transport and other sustainable forms of mobility, such as cycling and walking. Part of the mobility plan measures are also larger investment projects that will be financed by the Norwegian Ministry of Finance and the Predjama Sustainable project; the construction of a car park for personal cars and caravans near Prepih and the introduction of a new Postojna–Predjama bus line, as well as the erection of a bus stop shelter in Prepih displaying the possible sustainable connections to the tourist destination of Postojna. We will also mark cycling and walking trails leading to Predjama in order to provide environmentally-friendly access to the destination. As the Mayor of the Municipality of Postojna, I hope that every citizen of and visitor to our municipality will use the gradual and multimodal introduction of the planned mobility plan measures to find the combination of routes that is best for him/her and for the environment we live in.

Let me take this opportunity to thank all the stakeholders in the projects and especially the residents of Predjama. You are the ones providing the best information and proposals to other partners. I am certain that together, we will steer this project to the point where Predjama is a tourist destination where its own residents are taken good care of whilst enjoying the quality provided by visitors.

Igor Marentič
Mayor of the Municipality of Postojna

Sustainability – a milestone in tourism

Caves have always been an inspiration. The centuries-old paintings and symbols on their walls are a witness of their ancient visitors. Caves, however, did not only birth stories of dragons and dragon cubs, but also provided an inspiration to adventurous travellers for unconventional ways of travel. Such travellers included the Argonauts, who carried their ship along the dry riverbeds of the karst intermittent rivers – all the way to Predjama Castle as the river re-emerges on the other side of the hill, in the Vipava Valley.

The famous knight Erasmus also discovered this centuries later in his home and refuge, Predjama Castle, nestled in widened underground karst cave passages from which the rivers had long gone, providing Erasmus with a quick escape route from besiegers.

Coming from Ljubljana towards Koper, all the important road and railway links between Ljubljana and Trieste converge in one spot shortly before Postojna. This spot is called the Postojna Gate. It is still considered the lowest passage between the coast and the interior of Central Europe, making it an always-bustling transport route. This is the route of the historical Amber Road named after hard translucent fossilised resin that used to be traded.

The Romans linked our region with the centre of their empire with good roads. Roman archaeological findings bear witness to the late-Antiquity road link between Planina towards Ad Pirum in Hrušica and further to the Vipava Valley and Razdrto. Cartmen continued their transport services along the ancient Roman-built roads, mostly transporting wood to Trieste, including for ship masts. That is why the route was named after these masts.

Renaissance further encouraged people's curiosity, paving the path for the desire to travel, including under the influence of numerous travellers' journals. A decision to embark on a journey, however, required quite an adventurous spirit and finances. One of the first planners of organised trips was Thomas Cook. He guided a group of Englishmen through Europe in the mid-19th century. His itinerary included Switzerland, but also Paris, Budapest, Vienna, Venice, Florence and Postojna! That trip is considered the first organised trip in the world.

The Argonauts were not the only ones with the idea of shortening their journey by using dry underground passages. This idea re-emerged in the mid-19th century; one study quite seriously suggested routing the railway towards Trieste through the underground passages and caverns between Vrhnika and Planina Field. Naturalists rejected the proposal, so the railway now actually passes through the Postojna Gate, but the Postojna Cave still got its own cave railway. That, in return, resulted in an extraordinary development of tourism.

Monuments of national importance, such as Postojna Cave and Predjama Castle, the largest cave castle in the world, are centres of global tourism, which is constantly on the rise.

The time and environment, however, pose new challenges that we need to adapt to. Tourism has been going through its heyday in the last century and has become a lot more than just adventurism. It is an important part of the economy representing more than 10 % of the GDP and employing more than 11 % of the active population. It is an interdisciplinary industry that promotes several other activities. Tourism is not just beds, good cuisine and nice views.

Tourism is us, the people, and is created by those cohabitating in tourist destinations, such as Postojna and Predjama. Not every aspect of tourism is positive, which is why we have committed to plan it in unison and keep looking for sustainable solutions – to improve the actual experience of our guests, to improve our own quality of life in the local environment, and, last but not least, because of the responsibility to contribute to the efforts to reduce the negative impact of tourism on the climate crisis through sustainable measures.

This is why we were happy to hear the initiative of the Regional development agency Green Karst to respond to the call for tenders by the Norwegian Climate Change Mitigation and Adaptation financial mechanism together with the Municipality of Postojna.

At first sight, the measures of the Predjama Sustainable project might not seem too ambitious; but even more important than the implementation itself is the conscious decision that this is only the beginning of a change of travel habits for everyone living here and our visitors, modern adventurers who want to experience this extraordinary heritage together with us.

The originality and persistence of the Argonauts can serve us in the search for the best solutions in the future as well.

Marjan Batagelj

Chairman of the Management Board of Postojnska jama d.d.

Sustainable mobility for a better experience in Predjama

The Predjama mobility plan is a local agreement among all relevant actors on how to solve the central challenge of Predjama: how to improve the sustainable aspect of arriving at the Predjama tourist destination. The incredible Predjama Castle attracts hundreds of thousands of tourists to the remote village of Predjama year after year. Postojna Cave and Predjama are the most visited destinations in Slovenia. They represent the impression that a visitor gets about the entire country, meaning that we are responsible for showing it in the right way. Recently, the increasing number of tourists have been impacting the entire experience of visiting Predjama to a great extent. Predjama is, however, deteriorating primarily due to the difficult access and the ensuing traffic chaos. Locals themselves are also not too keen on the situation.

In general, mobility plans can contribute to unifying the relevant actors and their interests in improving the management of the tourist area, introducing sustainable types of mobility, improving the quality of the environment, and reducing crowding and loads on the infrastructure. This also impacts tourist flows by maintaining or strengthening them while simultaneously meeting the needs of the locals for a high-quality local environment and promoting the local economy.

What does this mobility plan mean for Predjama and Predjama Castle? It means that its implementation builds on the strategic focus written in the Comprehensive Transport Strategy of the Municipality of Postojna and the Tourism Development Strategy of the Municipality of Postojna 2018–2023. The action plan defines the solutions that are viable and effective in Postojna and Predjama. The reduction of the share of motorised traffic and the improvement of sustainable travel methods are crucial in order to improve the accessibility of the location and the tourist experience. The measures therefore encompass the operational organisation, promotion, infrastructure optimisation, and the introduction of new services.

How is it possible to get from the action plan to actual effects? The action plan has been designed through the close cooperation of all actors: the local administration, the operator of the tourist destination, providers of mobility services, the tourism industry, and the general local community. Their cooperation is a guarantee for the viability of measures and their effectiveness. Measures follow one another from short- to long-term, meaning that the experience from transport management will expand from year to year. We can count on the effects to improve the experience for visitors, make it easier for locals to live in the area, and provide local actors with a good starting point for synergies.

Urban Jeriha

IPoP – Institute for Spatial Policies

Preparation of the mobility plan for the Predjama tourist destination

The Municipality of Postojna wants to increase the share of sustainable mobility in the municipality with regard to the Comprehensive Transport Strategy. Postojna Cave and Predjama Castle are the main tourist attractions not only in Postojna, but also nationwide, meaning that solving the transport issues is crucial. Together with the manager of Predjama Castle, Postojnska jama d.d., and an expert in the design of mobility plans and transport strategies, IPoP – Institute for Spatial Policies, the Municipality has approached solving the problem of reducing the number of private vehicles on-site without reducing the visitor numbers. The project is co-funded by the Norwegian fund via which the Norwegian Strand Municipality has also been included in the partnership. They are facing similar transport challenges imposed by the high numbers of visitors to Preikestolen – a steep cliff towering more than 600 metres above the fjord.

The main objective of the project is to affect the mobility habits of people and, with it, to contribute to the mitigation of climate change through the mobility plan and a pilot execution of the key measures. At the end of the project, the share of sustainable mobility forms shall be increased by at least 5 percentage points.

Organisational structure

Project: Predjama Sustainable, Norwegian Financial Mechanism Lead partner: Municipality of Postojna
Project partners: <ul style="list-style-type: none">● Postojnska jama d.d.● IPoP – Institute for Spatial Policies● Strand Municipality (Norway)
Workgroup: <ul style="list-style-type: none">● Partners in the project● Local Community of Bukovje● Interested residents of Predjama and Bukovje
The following were also included in the mobility plan preparation process: <ul style="list-style-type: none">● Residents of Predjama, Bukovje, and the surrounding villages● Local societies (Kašča, Pudgura, Bike Slovenia)● Institute Znanje Postojna (Visit Postojna)● Regional development agency Green Karst● Destinations with similar transport issues

Mobility plan preparation steps

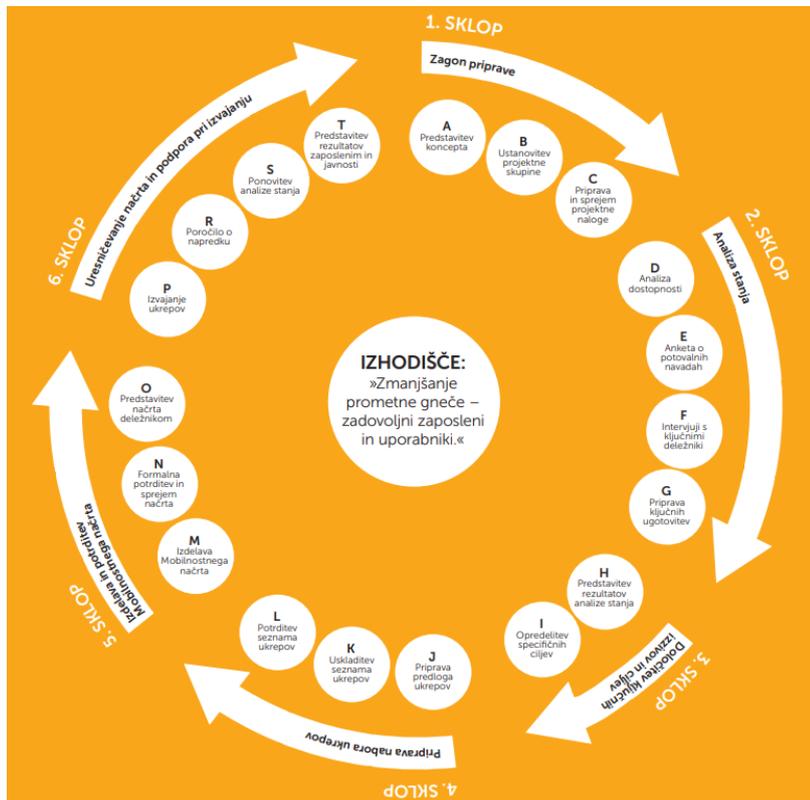


Figure 1: Schematic of the mobility plan sections and preparation steps (source: [Place mobility among the strategic opportunities, 2019](#)).

Start of preparation

- Introductory meeting of the project partners
- Introduction of the Local Community of Bukovje members to the project
- Visit by the Norwegian partner
- Formation of the workgroup

Current state analysis

- Accessibility analysis of the macro- and micro-location
- Starting point definition (number and shares of mobility of daily visitors to Predjama)
- Survey on the transport challenges that residents face
- Survey on the travelling habits of visitors
- Interviews with key stakeholders
- A walk with residents
- Interviews with destinations with similar experience
- Definition of challenges and potentials

Formation of the vision

- Formation of four scenarios – from the current state to the strict limitation of private motorised transport
- Selection of a scenario together with the residents at a public assembly
- Presentation of the scenarios to partners and then to the workgroup

Selection of measures

- Preparation of the selection of measures by individual scenarios
- Placement of individual scenarios on the timeline and harmonisation of the list of measures with partners
- Approval of the list of measures

Mobility plan drafting and approval

- Mobility plan creation
- Mobility plan approval and confirmation
- Presentation of the mobility plan to the Local Community of Bukovje

Plan implementation and support

- Introduction of the mobility plan to the public
- Implementation of measures
- Monitoring of the situation (summer of 2023)
- Presentation of results

Placement and outline of the Predjama destination

The settlement of Predjama is located in the western half of Slovenia, in the Littoral-Inner Carniola Statistical Region¹. It lies in the north-western part of the Municipality of Postojna, 9 kilometres from Postojna itself. The hamlet of Pristava also belongs to the settlement. Based on the most recent data of the Statistical Office of the Republic of Slovenia, the permanent population of Predjama is 85 people² in approximately 50 households. It is accessible from two directions. There is a local road from Postojna via Bukovje³ from the northeast that was paved in 1992⁴, whereas there is a forest road approaching from Landol in the south. The visitor numbers to Predjama have increased significantly in recent years, which means an increase in traffic. Due to sightseeing attractions, among which Predjama Castle clearly stands out, Predjama has become a globally recognisable tourist destination. Traffic planning has not managed to keep up with the rapid increase of visitor numbers, which is causing a range of inconveniences for the locals and visitors alike.

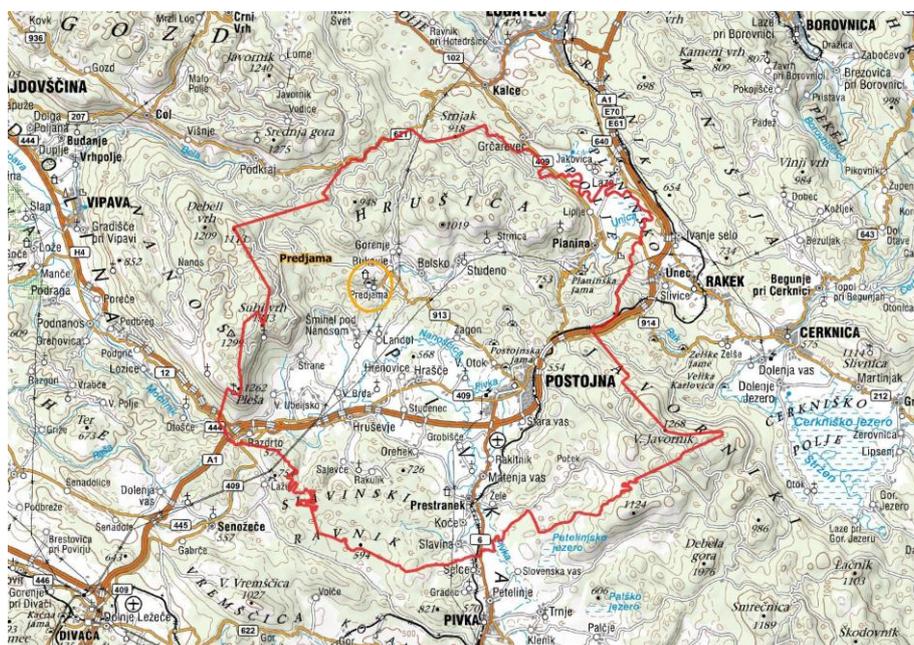


Figure 2: Location of Predjama (highlighted in orange) within the Municipality of Postojna.

Predjama is most famous for Predjama Castle, the largest cave castle in the world⁵, which attracts around 300,000 visitors annually with its image and the stories about the famous Erasmus of Predjama. Between 2012 and 2017, the number of visitors grew from 130,000 to 240,000 per year (Table 1). The cultural monument is owned by the state and rented out to the best bidder under the conditions of a public call for tenders⁶. For the period from 2013 through 2028, that is Postojnska jama d.o.o., which also manages the Predjama cave system⁷.

Table 1: Number of visitors to Predjama Castle between 2012 and 2017 (data source: MoP TDS, p. 43).

Year	2012	2013	2014	2015	2016	2017
Number of visitors	128,714	140,215	159,126	175,595	200,043	239,808

In addition to the castle itself, tourists often also visit the Cave under Predjama Castle, which is a shelter for several species of bats⁸ and is also an archaeological site, in addition to being a cultural heritage monument. Some homesteads in the village are also interesting as heritage structures in addition to Predjama Castle. One of them (Pri stari dami, meaning At the Old Lady) features a hunting museum collection and a collection of objects from World War I. The Church of Our Lady of Sorrows belongs among the sacral heritage structures⁶. The information on the church dates back to the 15th century when it was consecrated by Pope Piccolomini⁹. An important landmark in connection with Predjama Castle is a natural monument, the Erasmus of Predjama linden tree next to the church. There is also a memorial⁶ in Predjama in remembrance of the national liberation movement.

Several times a year, there are events taking place in Predjama that attract numerous visitors, especially locals. We can highlight the Medieval Days taking place in August ever since 2018 and organised by the members of the Kašča society from Predjama. The lawn in front of Predjama Castle is the site of numerous concerts and events in the summer with the nice ambience and the castle serving as the backdrop. Other events taking place in Predjama annually: Walk from Erasmus to Ravbar, Modrijan's Walk, and the mountain bike event Cycling on the Paths of Erasmus of Predjama. Numerous hiking and cycling trails are also routed through Predjama. The Via Dinarica, Via Adriatica, Way of St James, Castle Bike Trail, Cave Bike Trail, and Erasmus Bike Trail. Another important historical road passing nearby is the Ship Mast Road. Today, there is a memorial circular hiking trail passing through Predjama¹⁰. There are also other natural and cultural sights around Predjama. Among them are the double toplar hayrack in Prepih with its exhibition and a ship mast model, the Betal Rock Shelter along the Postojna–Bukovje road, Pivka Cave and Black Cave, the Hrušica plateau with Nanos, as well as the oldest Slovenian yew in Strane¹¹.

Visitors to Predjama Castle and other sights, hikers and bikers can find sustenance in Predjama in the Predjamka inn, in the Pri stari dami bar, and in the Požar inn, which offers accommodation in addition to food and beverages. Accommodation in Predjama is also possible in the Jager Apartments, while other nearby providers can be found in the villages of Bukovje, Studeno, Landol and Zagon.

Obisk Predjamskega gradu v posameznih mesecih

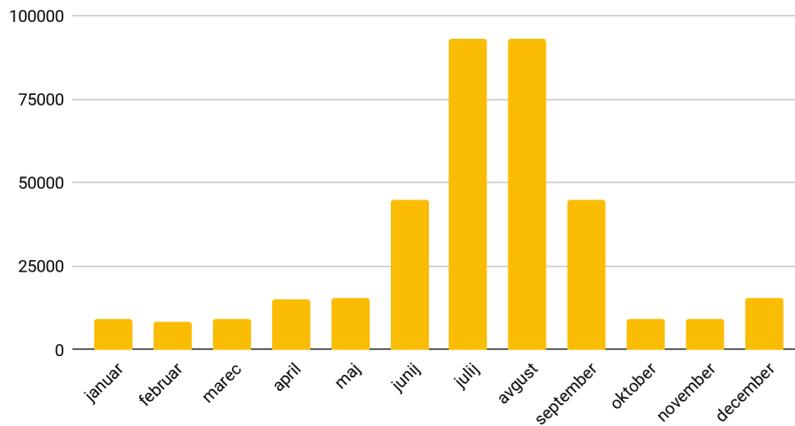


Figure 3: Estimation of the allocation of Predjama Castle visitors by month.

Predjama Castle is the main tourist attraction in Predjama. It receives visitors throughout the year, with the majority arriving in July and August. Most visitors arrive thanks to visiting the Postojna Cave. Predjama can be visited in two ways – individually or in a group. Young families, couples and retirees mostly opt to tour the castle individually. They use their own or public transportation to reach Predjama, which is extremely rare outside the main season as the only public transport option is a taxi. Group tours are a popular choice with societies, retirees, exchange students, companies, trade unions, and school groups arriving in Predjama with their own organised transport.

Outside the main tourist season (January to March), Predjama Castle is open from 10 a.m. to 4 p.m. Foreign visitors mostly come from Italy, Belgium, Poland, Austria, Hungary, France, Croatia and Serbia, mostly combining Postojna Cave and Predjama Castle.

At the beginning of the tourist season (April to June), the opening times of the castle are extended by one hour with most foreign visitors coming from Italy, England, Scotland, Belgium, Poland, Austria, Hungary and France.

Visitors in the main season from June to August visit Postojna Cave as part of day-trips with approximately a third also visiting the castle. However, the number of people only visiting the castle is increasing. Guests also frequently arrive from the Slovenian or Croatian coast and from Ljubljana as part of daily excursions, especially on rainy days (MoP TDS, p. 112). In the high season, the castle is open from 9 a.m. to 7 p.m. During this time, there is a tourist shuttle bus providing transportation between Postojna Cave and Predjama. Before the coronavirus pandemic, the majority of summer visitors were guests from Asian countries. Their numbers, however, dropped significantly after 2019. Most visitors from European countries come from France, Belgium, the Netherlands, Germany, Spain, England and the rest of the United Kingdom. There are also many visitors from the United States of America. Even though there is a shuttle bus transporting guests between Postojna Cave and Predjama, most individuals opt to use the car. There are various reasons for this, with the most common ones being limited time, the desire to continue a trip from Predjama Castle, the heat, crowds in the bus, or lack of information about the option to use organised transport.

The number of visitors slowly decreases between September and November with the fewest in October and November. These are mostly individual visitors with most groups represented by schools. Foreign visitors mostly come from neighbouring countries.

December is the month of the Living Nativity in Postojna Cave. That is why many visitors buy a combo ticket and also visit Predjama Castle. The majority of guests are from Slovenia, but also from Italy, Croatia and Austria. All of them mostly use private transportation¹².

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- ¹ GURS [Surveying and Mapping Authority of the Republic of Slovenia], 2022. Register of spatial units Settlements. URL: <https://gis.iobcina.si/gisapp/Default.aspx?a=Postojna>.
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- ⁸ Visit Postojna, 2022. Cave under Predjama Castle. URL: <https://www.visit-postojna.si/si/kaj-videti/skrivnostna-predjama/jama-pod-predjamskim-gradom>.
- ⁹ Studeno Parish, 2022. Predjama: Affiliate Church of Our Lady of Sorrows. URL: <https://zupnija.studeno.com/members/predjama/>.
- ¹⁰ Visit Postojna, 2022. Ship Mast Road. URL: https://www.visit-postojna.si/si/files/default/OE_Turizem/Dokumenti/Jamborna_cesta_Slo.pdf.
- ¹¹ Visit Postojna, 2022. Yew in Strane. URL: <https://www.visit-postojna.si/si/kaj-videti/drugi-biseri/tisa-v-stranah>.
- ¹² TIC Postojna, 2022. E-mail correspondence.

Current state analysis

Starting destination accessibility analysis: Postojna

The main reason for visiting Postojna is the Postojna Cave, meaning that the visitor numbers are based on the cave's visitor numbers. A visit to Postojna Cave is considered cave tourism, which is – according to some – the most promising tourism sector since Postojna is surrounded by several caves that are attractive to visitors (the cave under Predjama Castle, Pivka Cave and Black Cave, as well as Planina Cave). Most visitors are day-trippers, which means that Postojna is a transit destination with the number of overnight stays not reflecting the number of actual visitors¹. The data of the statistical office on tourist arrivals states that the Municipality of Postojna was visited by approximately 116,000 domestic and foreign guests² in 2019 (overnight guests) with the Postojna Cave receiving approximately 900,000 visitors³ (number of tickets sold) in the same year. This means that a large share of visitors only visits the sights in Postojna and then continue their trip.

Postojna Cave gathers information on visitors to Postojna. Roughly a half are organised arrivals by busses and a half are individual guests, whose number keeps increasing. They mostly arrive in Postojna by car, followed by public transportation¹. Visitors arriving in Postojna by private vehicle can leave them in the car park in front of Postojna Cave, which accommodates 1,414 vehicles (Table 2). Larger car parks in Postojna are in front of the Primorka Commercial Centre, the medical centre, and next to the cemetery.

Another option to reach Postojna is public transport, i.e. busses and trains. Long-distance busses link Postojna to Ljubljana, Nova Gorica, and Koper. The main bus station is in the centre of Postojna, a 15-minute walk from Postojna Cave. Regional busses between Ljubljana and the coast also make stops at the Postojna Cave car park several times a day. The railway links Postojna to Ljubljana and Koper. It is 15 minutes on foot from the Postojna centre and 30 minutes from Postojna Cave.

Within Postojna itself, there is a free bus called the Furman. It links various parts of town with the lines and schedules mostly catering to school children and workers; however, it is also a good alternative for visitors. The city bus is sadly not connected to the railway station (the closest station “Pod kolodvorom” is down a steep set of stairs, 5 minutes from the railway station on foot) or Postojna Cave (the closest station, “Jamska”, is one kilometre away). The Furman is therefore not suitable as a tourist link between the public transportation stations and the tourist attractions.

Postojna also offers regular or electric bikes POSbikes, which complement the public transport in Postojna⁴.

Postojna is approximately 10 kilometres from Predjama and therefore the main starting point for visitors to Predjama.

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¹ MoP TDS, 2018. Tourism Development Strategy of the Municipality of Postojna 2018–2023. URL: <https://www.postojna.si/DownloadFile?id=230940>.

² SURS, [Statistical Office of the Republic of Slovenia], 2022. SiStat. Tourist arrivals and overnight stays by country, municipalities, Slovenia, per year. URL: <https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/2164526S.px/table/tableViewLayout2/>.

³ Dnevnik, 2021. Postojna Cave with new records and investments. URL: <https://www.dnevnik.si/1042913849>.

⁴ POSbikes, 2022. About the service. URL: <https://www.posbikes.si/o-storitvi>.

Final destination accessibility analysis: Predjama

Access on foot

There are several long-distance hiking trails passing Predjama (the Notranjska Mountain Trail, Via Dinarica and Via Alpina). Tourists who prefer to move around on foot have the option of the more suitable Dragon's Path. This easy 7.2 km trail goes from Šmihel pod Nanosom towards Predjama and returns via Landol. There are several sights along the trail. Information on the trail can be found on the Visit Postojna website; however, the trail itself is not marked and does not have any special provisions for hikers. The Postojna Cave Park, however, does not promote walking access to Predjama Castle.

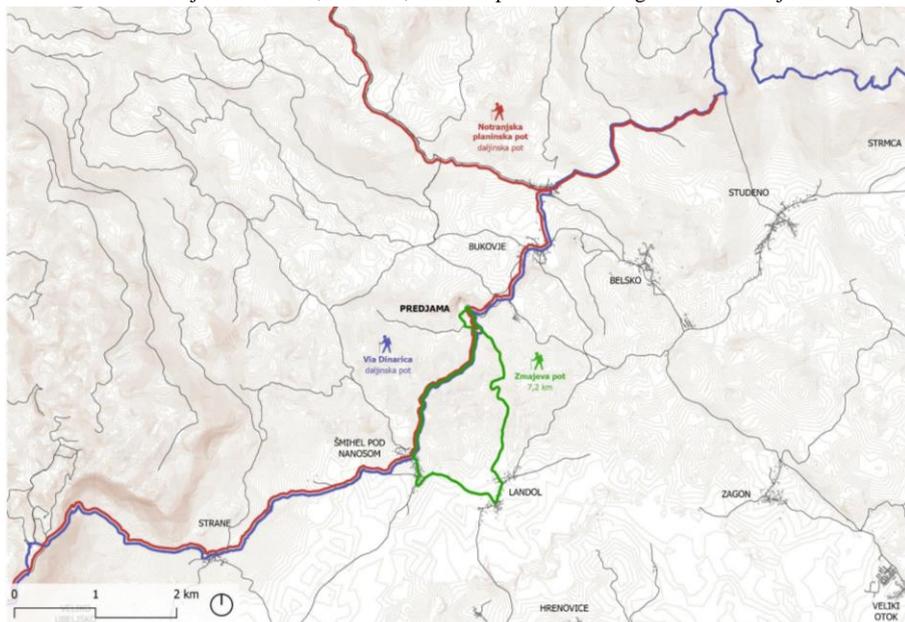


Figure 4: Map of the hiking trails passing Predjama. (green) Dragon's Path – circular, 7.2 km; (red) Notranjska Mountain Trail – long-distance; (blue) Via Dinarica – long-distance.

Accessibility by bike

The Visit Postojna website provides a lot of suggestions for bike tours with good descriptions and GPS tracks. The Cave, Castle, Erasmus', and Nanos bike trails pass Predjama. Some of them are signposted with a small reference number. Sadly, the signposting is not sufficient help for cyclists when navigating to Predjama Castle without good preparation.



Figure 5: Cave Bike Trail marking (source: [Visit Postojna, 2022](https://www.visitpostojna.com)).

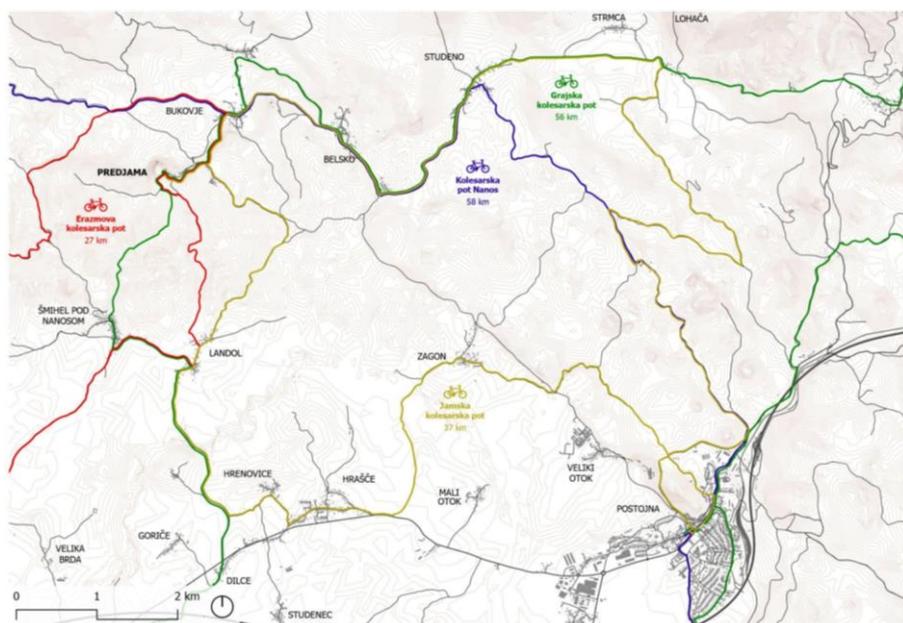


Figure 6: Map of the bike trails passing Predjama. (yellow) Cave bike Trail – 37 km; (green) Castle Bike Trail – 56 km; (blue) Nanos Bike Trail – 58 km; (red) Erasmus' Bike Trail – 27 km.

More direct cycling links can also be selected using sections of existing trails. All the links could use parking options at the starting point, clear signposting and promotion. This last is lacking when it comes to bike access to Predjama for tourists.

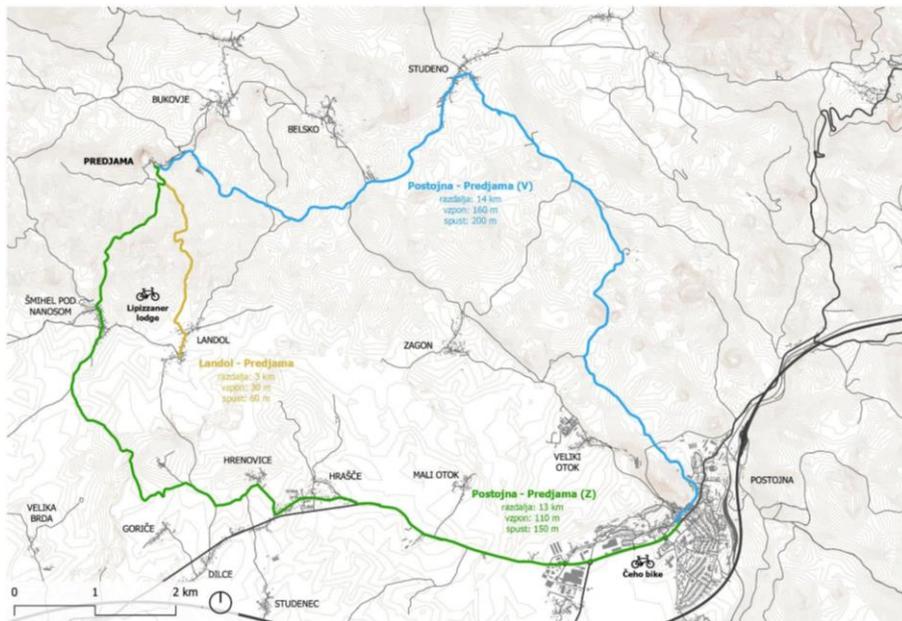


Figure 7: The most direct cycling links from Postojna and Landol to Predjama. (yellow) Landol–Predjama: 3 km, gravel road; (green) Postojna–Predjama on the west side: 13 km, on emerging bike trails, quieter roads, and gravel roads; (blue) Postojna–Predjama on the east side: 14 km, on gravel roads, quieter roads, a suitable cycling path away from the road needs to be constructed between Prepih and the Landol/Bukovje/Pristava intersection.

Public transport accessibility

There is a shuttle bus with approximately 55 seats operating between Postojna Cave and Predjama in July and August. Regular busses (at least once per hour with the highest frequency every 15 minutes) between the location operate from 11:00 a.m. to 7:30 p.m. A return ticket costs €1. The transport option is supposed to be available to everyone who purchases tours of Postojna Cave and Predjama Castle.

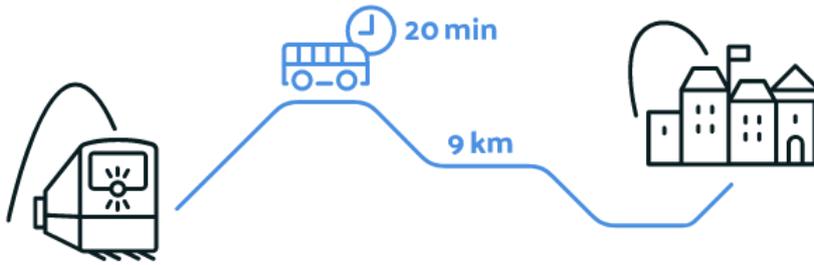


Figure 8: Diagram of the shuttle between Postojna Cave and Predjama Castle (source: [Postojna Cave, 2022](#)).

Accessibility by car

There are numerous roads leading to Predjama, all freely accessible using all types of motorised vehicles. The main route goes from Postojna 10 km away and passes Postojna Cave, Prepih and Bukovje. The road from Planina joins this road in Prepih and the road from Landol joins it in Vrhe. These two links are also frequently used by tourists. There are also two gravel shortcuts from Landol through Pristava. Tourists occasionally end up on these two roads, which is inconvenient for locals and presents an issue for the traffic flows.

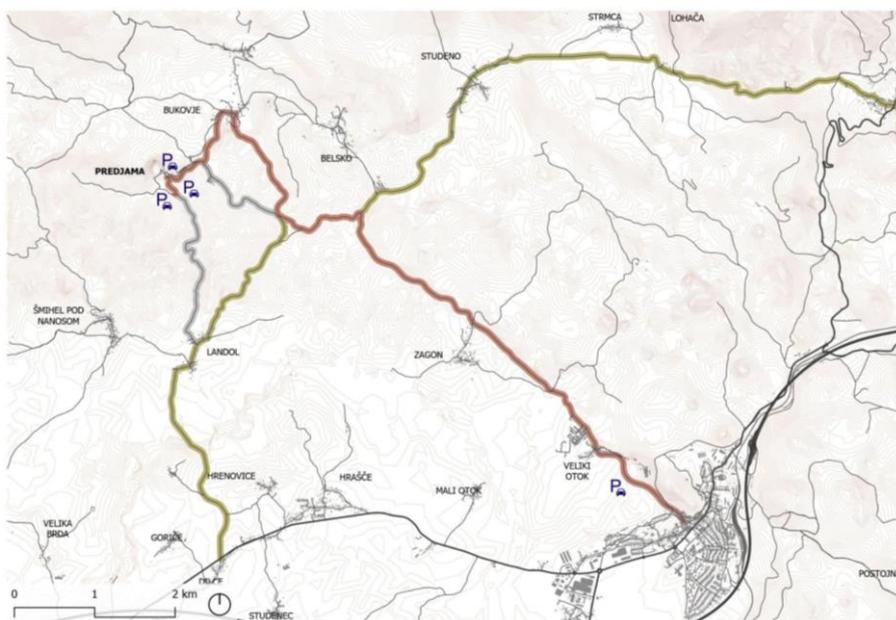


Figure 9: Access to Predjama with motor vehicles. (red) Postojna–Predjama main road; (yellow) access from the regional road, via Strmca and Landol. (grey) gravel roads from Landol via Pristava.

Travelling habits of visitors

We analysed the travelling habits of Predjama visitors in August 2022 by recording arriving and departing vehicles. The majority of visitors, i.e. 74 %, reached Predjama in their own motorised vehicle – car, caravan, van or motorbike. Almost a quarter (24 %) used the tourist shuttle bus for the journey. The smallest share of visitors to Predjama – fewer than 2 % – selected an active way to get there (on foot or by bike). Sustainable forms of mobility at the Predjama destination therefore represent a quarter (26 %), which is the foundation for measuring changes in the project.

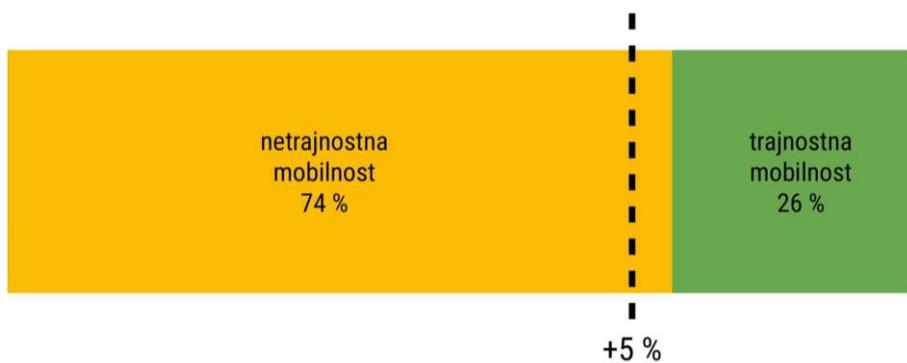


Figure 10: Travelling habits of visitors to Predjama.

The average visit duration of visitors to Predjama who arrive in their own motorised vehicle (the rest could not be tracked) is 1 hour and 35 minutes with the most visitors arriving between 11 a.m. and 1 p.m. as well as 2 p.m. and 4 p.m., when 350 visitors arrive in Predjama per hour.

More detailed results of the analysis of the travelling habits of visitors to Predjama can be found in Annex 2.

References:

¹ Visit Postojna, 2022. Markings. URL: <https://www.visit-postojna.si/si/kaj-poceti/kolesarstvo/jamska-kolesarska-pot/oznake>.

² Postojna Cave, 2022. Predjama Castle. URL: <https://www.postojnska-jama.eu/sl/predjamski-grad/>

Final destination accessibility analysis: Predjama (micro-location)

All mobility challenges come together at the final destination, in the village of Predjama. The constrained space is a meeting point for busses, cars and cyclists, visitors and locals, causing frequent conflicts between various users.

The source of the registered challenges at the micro-location of the tourist destination are public discussions with the locals, fieldwork, and the observations of the workgroup. We marked points on the map for every mobility method to highlight where these conflicts arise. The conflicts themselves were described in the text under the same number. The photos attached depict the current state on site.

Walking and cycling infrastructure in Predjama



Figure 11: The locations of the problematic points in terms of walking and cycling infrastructure, highlighted in yellow.

1. The entire area between the linden tree and Stara dama is dangerous for visitors because all types of traffic converge here – pedestrians, cyclists, bikers, cars, caravans, busses...
2. Pedestrians are forced to walk along the road from the car parks to the linden tree even though the road itself is a challenge for oncoming vehicles alone, let alone with pedestrians and cyclists on both sides.



3. The path from the lower car park to the road is steep, without a fence, and also slippery when wet.

4. There is no pavement from Predjama to Bukovje. It could be used by school children on the way to the school in Bukovje and also by tourists arriving on foot.

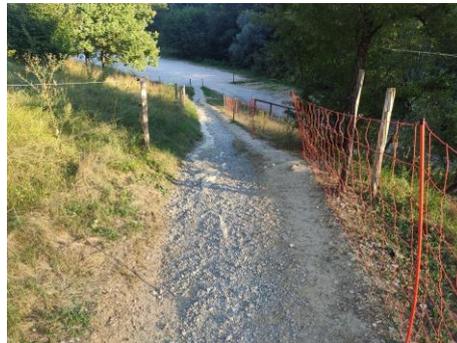
5. Pedestrians need to squeeze past the parked employees' or delivery vehicles.

6. The path to the castle is not well maintained.

7. There are no bike stands in Predjama.

8. There are no pedestrian crossings on the main road in Pristava in order to continue the trip to Predjama on the upper road. Once the planned bus stop is completed, a crosswalk will be even more urgent.

9. The bike trail to Predjama is insufficiently marked forcing the cyclists to follow signposts to Predjama for cars and riding on the main road.



Public transportation infrastructure in Predjama

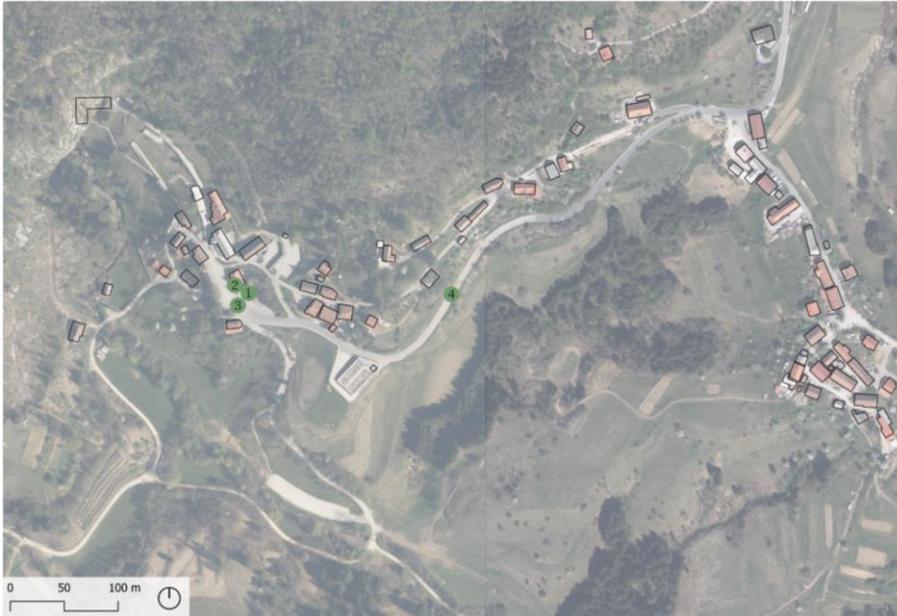


Figure 12: The locations of the problematic points in terms of public transportation infrastructure, highlighted in green.

1. Busses need to manoeuvre among people in order to park.
2. There is no space for people waiting for the bus. They need to queue on the platform by the linden tree, where there are many cars, busses turning around, etc.
3. The bus schedule is barely visible and not up-to-date.
4. The entire route between the Postojna Cave and Predjama is too tight for busses and other large vehicles to comfortably meet. The worst issue is large vehicles not operated by professional drivers, such as caravans.



Infrastructure for cars



Figure 13: The locations of the problematic points in terms of the infrastructure for cars, highlighted in red.

1. The insufficient infrastructure and lack of traffic signs cause a lot of chaos among drivers arriving at the platform; they do not know where to go and need to pay attention to the oncoming vehicles and pedestrians.
2. The turning radius to reach the lower car parks is very tight, which makes meeting oncoming traffic very difficult.
3. Vehicles are guided along a one-way road from the upper car parks to the platform used by pedestrians and those waiting for the bus.
4. The parking flow in the municipality-owned car parks (from the linden tree to Stara dama) is very unclear. Some parking spaces are reserved for people with disabilities, but they are not clearly marked.



5. There are traffic jams at the parking payment spots. This causes some vehicles to turn around. Those paying move their vehicles closer to the left side of the road where there is a parking supervisor, forcing departing vehicles to wait.
6. Vehicles are parked next to the cemetery or roadside – to avoid paying the parking fee. Difficulties when meeting oncoming traffic next to these parked vehicles cause traffic jams.
7. It can happen that car drivers and motorists inadvertently end up on the upper road between Pristava and Predjama, which is unsuitable for tourist access.
8. Support walls next to the road make it look narrower than it is causing vehicles to move towards the middle of the road, making it very difficult for vehicles coming from opposing directions to pass.
9. During rush hour, GPS systems lead tourists from Predjama to Postojna along the gravel road through Pristava, which is not suitable.
10. Some people even access Predjama along the gravel road from Landol. This way, they avoid paying the parking fee.
11. There are two parking areas used during the high season. One is gravel-covered, the other one grass. The unsuitable layout makes it difficult for vehicles to use all the available space.
12. The upper lots only fill up in the mornings. Later on, the lower car parks are utilised as well. The car parks could be better utilised.



13. The site for the Medieval Days is unsuitable and right by the road.
14. Motorbike parking is not marked. Bikers need to park in the available space on the platform and do not pay for parking.
15. There are no charging points for electric vehicles.

Predjama offers several car parks for tourists. Paved car parks can be found above the access road (37 parking spaces, hereinafter: PS) and on the platform next to the linden tree (23 PS), where busses, travel organiser vans, and employee cars are also parked. There are also two gravel or grass car parks in the valley beneath the village in high season accommodating approximately 180 vehicles.

Table 3: Number of parking spaces in Predjama.

Number of parking spaces in Predjama							
Car park	Number of marked spaces	Number of unmarked spaces	Busse s	Grass	Peopl e with disabil ities	Motor bikes	Total parking spaces (cars)
Above the granary	37	0	0	0	0	0	37
Bus parking	4	0	5	0	0	0	9
From the linden tree to the shop	11	0	3	0	0	0	14
Gravel	0	80	0	0	0	0	80
Grass	0	100	0	0	0	0	100
Total	41	80	5	0	0	0	240

The parking fee for cars is €5 per day and €10 per day for caravans. The parking fee on the lots operated by Postojnska jama d.d. is collected by their employees, while parking is free in all other locations. This is why some tourists decide to park on the gravel car park next to the cemetery at the beginning of the village (approximately 15 PS) or along the main access road. The lack of traffic signs and supervision of such behaviour is not sanctioned and frequently causes chaos. Parking is also confusing before the Postojna Cave parking supervisors start their shift, i.e. start collecting the parking fee and directing traffic. Signposts do feature the locations of the car parks; however, the unclear parking and traffic flows make many tourists slow down or drive recklessly.

Cooperation of various public groups in the preparation of the mobility plan

The participation of various public groups:

- Public discussion with residents

- Field visits with a traffic expert and residents
- Survey on the transport challenges that residents face
- Survey on the travelling habits of visitors
- Interviews with key stakeholders
- Interviews with representatives of destinations with similar experiences

Locals

The mass tourism at Predjama Castle has a positive (income for hospitality and accommodation providers) and a negative (crowding, noise, traffic jams, pollution) impact on the population of Predjama, Pristava, Bukovje and other nearby villages. That is why cooperation with the locals is crucial – they know the situation best, which contributes to the general understanding of it. At the same time, they are the key actors when it comes to planning the measures that will impact their quality of life even more than the tourist experience.

We met with the locals at two public discussions and walked through Predjama with individuals. We wanted to find out from the locals what issues they are facing in their environment because of tourism and what solutions they propose. The stakeholders also took part in the mobility plan preparation workgroup.

Within the Predjama Sustainable project, there was also a prize survey among the residents of Predjama, Bukovje and the surrounding villages in September 2022. Its aim was to learn about their mobility issues and become familiar with their view of any mobility measures.

The residents of Predjama and the surrounding villages, who more or less feel the impact of tourism at Predjama Castle, have expressed pretty satisfactory support for the measures in the survey since they could provide more sustainable travel on the Postojna–Predjama route for them and for tourists. Most want better links from the countryside to the city by public transportation and bikes. They are also partially in favour of limiting access for tourists to Predjama by car.

With regard to their personal mobility, we were surprised that most who currently commute to work by car would prefer another method – on foot, by bike, bus, or carpooling. They also wish that their children could go to school on foot or by bike.

More detailed results of the survey can be found in Annex 3.

Visitors

We obtained the opinion of the visitors whose mobility habits we want to impact the most through a survey. The survey for visitors about sustainability at the most visited points in the region was executed by the Institute Znanje together with the Regional development agency Green Karst in the summer of 2022. Questions about mobility when reaching Predjama were added for visitors of Predjama Castle.

Two-thirds of visitors would prefer to arrive in Predjama by car whereas 13 % would choose something else over a car. Bus transport shows the greatest potential. 35 % and perhaps also an additional 24 % (undecided) would choose the shuttle bus to reach Predjama. The shuttle bus is currently used by 24 % of visitors. Since access to Predjama Castle by bike currently has a really low share (1 %), there is an opportunity for 12 % (and maybe even up to 26 %) of visitors to switch to this type of active mobility.

Kako bi šli iz Postojne na obisk Predjamskega gradu?

(10 km v eno smer, razgiban teren s klanci)

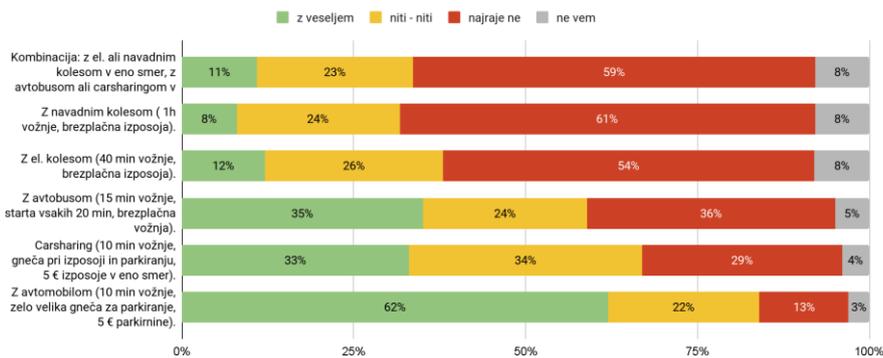


Figure 14: How would you get from Postojna to Predjama Castle (10 km each way, uneven and hilly terrain)?

Visitors are not hesitant about using the bus with regard to the risk of infections and are increasingly prominently sustainable. The shuttle bus service could, however, be improved if the passengers learned more about the area during the ride.

Koliko se strinjate z naslednjimi izjavami o potovalnih načinih?

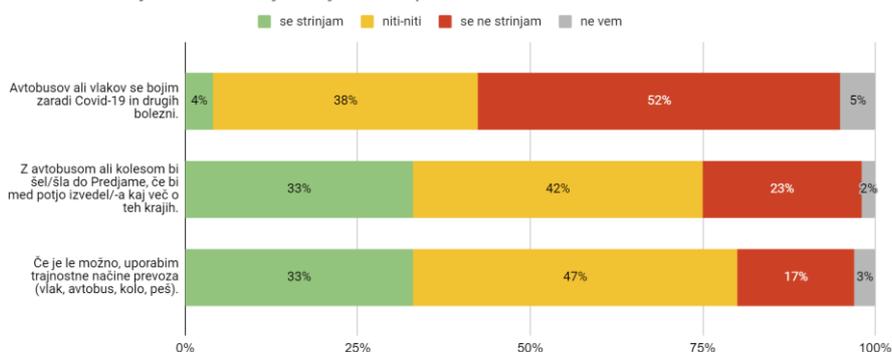


Figure 15: How much do you agree with the following statements about travel methods?

Key stakeholders

In addition to the visitors and locals, Predjama features some other stakeholders who are more or less linked to the project. We wanted to learn about their view of life, work and tourism in Predjama. That is why we executed 11 interviews. We talked to individuals participating in the project through the lead partner – the Municipality of Postojna – and through the partner Postojnska jama d.d. An interview was also conducted with the manager of Predjama Castle, the Local Community of Bukovje and local institutes, as well as the organisations RDA Green Karst, TIC Postojna, TS Kašča and TS Pudgura.

Examples of good practice of mobility measures at tourist destinations

The mass tourism at Predjama Castle, which is located in a remote area with access via a narrow road without many alternatives to travelling by car, is not an isolated example. There are many similar situations in Slovenia and abroad. We wanted to know how they are tackling the high traffic loads and what good practices could be transferred to Postojna. We talked to the representatives of the tourist destinations Logar Valley, Bohinj, Golica and Vrata Valley.

Logar Valley

By paying an entrance fee (€7 for a car), visitors entering the Logar Valley Landscape Park with a motorised vehicle obtain the right to use car stopping and parking areas in the valley within 5 metres from the road, except in areas where stopping and/or parking is forbidden. The entrance fee is waived for electric vehicles, pedestrians and cyclists, residents of the municipality of Solčava, people with disabilities, and members of the Alpine Association of Slovenia before 8 a.m. Guests overnighing in the valley pay the entrance fee only once for their entire stay.

This policy has been applied since 1992. The valley has been facing unorganised mass tourism putting a burden on the nature and the locals ever since the 1960s. That is why residents and entrepreneurs joined forces and founded the company Logarska dolina d.o.o., which was granted a concession by the Municipality of Mozirje (when it still had not separated to form the Municipality of Solčava) for the management of the valley. The entrance fee did not reduce visitor numbers, but it did improve the quality of life and visitor experience.

Nowadays, peak times in August can see up to 1,000 cars simultaneously in the valley. There is a desire to reduce this number to 300 in the years to come. An alternative to cars could be busses from surrounding towns and from P+R car parks before entering the valley.

Bohinj

Lake Bohinj and the mountains towering above are one of the most popular summer destinations in Slovenia. Numerous mobility challenges in the car parks by the lake and on the roads leading into the mountains prompted the authorities years ago to respond to the rising mobility needs by offering sustainable mobility instead of numerous invasive infrastructural projects.

Car parks can now be used for a fee, which provide funding for nine free bus lines. Between 700 and 800 thousand passengers use bus transportation around Bohinj every year. There are dedicated cycling and walking paths, and visitors can inquire about all the mobility options on a dedicated webpage called "For a Blooming Bohinj". When you open the webpage on a sunny summer day, you first see a warning popup with information on the availability of parking spaces and an invitation to use the bus.

Access to higher starting points for mountain hikes, such as the Voje, Vogar and Blato mountains, is limited to 300 vehicles a day. When you want to reach these points among the first 300, it will cost €15 a day. You can, however, use the free bus that operates from 6 a.m.

There is a desire to limit private traffic in Bohinj even further, especially on the roads leading into the narrower valley, which effectively makes them "dead ends" that need to cope with large numbers of parked vehicles. The aim is to limit the number of vehicles on the roads to the aforementioned mountains to 90 and to remove 500 parking spots in the valley. Tourist providers in Bohinj support such initiatives

and are focussing on sustainable tourism as well. The Municipality of Bohinj also cooperates well with the providers of regional bus transportation and the Slovenian Railways.

Golica

When the daffodils are in full bloom under the peak of Golica in the municipality of Jesenice in May, the mountain faces mass tourism. The pandemic drove domestic tourism in 2020 and every available surface in the villages at the foot of Golica turned into a car park, effectively bringing the traffic to a standstill. The management of the municipality, the local community, police, fire service, tourism and mountain associations joined forces because they knew that the conditions next year would be the same and measures need to be taken. Limitations of private vehicles would be inevitable.

Access to the starting points at the foot of Golica was limited for private cars with barriers and supervisors the following year. Passage was allowed for residents and their visitors, guests with dining and accommodation reservations, busses with organised tour groups, and disabled persons. Everyone else could park in Jesenice and catch a free bus in front of the railway station taking them to Planina pod Golico and Javorniški Rovt. The bus operated every 30 or 60 minutes from 7 a.m. to 5 p.m. The access limitation did not reduce visitor numbers, though.

The project coordinated by the Regional Development Agency of Upper Gorenjska is named “To the Daffodils by Bus”. The public has been invited to go see the daffodils via print, the internet and radio. At the same time, people were notified on how to reach the trailhead. There is a desire to flatten the visitor curve in the future. It can happen that a bus is completely full even when leaving the first stop in the car park near the municipal building, even though it then has additional stops near the grammar school, where locals usually board, and at the railway station.

Vrata Valley

One of the most attractive Slovenian valleys, Vrata Valley, is famous for its nature – forests, a river, a waterfall, and surrounding cliffs. With the growing number of visitors, it is becoming increasingly evident that personal traffic will need to be limited in order to preserve the unspoilt nature, for which the residents, local community and the public institute Triglav National Park have been fighting for many years. At the moment, anyone can reach Aljaž Lodge in the Vrata Valley by car. There is a parking fee at the car park in the summer and a traffic light at the entrance into the valley informing visitors about the availability of parking. There is also a bus transporting passengers into the valley with limited efficiency due to the busy roads.

In order to prevent dust rising from the surface, the road was paved in 2022, which further increased traffic through the valley. Regardless of numerous legal limitations, a new traffic flow needs to be implemented based on the nature protection agreement, which will limit personal motorised vehicles to at least some extent.

Review of existing documents on the municipal level

Our review of the municipal strategies and plans focussed primarily on any mention of access to surrounding places or tourist attractions. The village of Predjama is a good representative of both criteria.

Comprehensive Transport Strategy of the Municipality of Postojna

The purpose of the Comprehensive Transport Strategy of the Municipality of Postojna, drafted in 2017, is to contribute to the development of urban mobility and to help establish a sustainable traffic flow. The remaining goals are the improvement of links between the surrounding area and the city and the tourist development of the municipality.

The analytical part of the Strategy establishes that the conditions for walking and cycling between smaller settlements are insufficient, and the bus is predominantly used by school children. There are in general very few alternatives to car travel. The development of cycling is recognised as a great opportunity, especially from the point of view of tourism.

Tourism Development Strategy of the Municipality of Postojna 2018–2023

This strategy outlines the tourism profile of the municipality featuring two of the five most visited sightseeing attractions in Slovenia (Postojna Cave and Predjama Castle) as follows: “Mass tourism on the one hand and a lack of development of the remaining infrastructure on the other, as well as a strategic location along the main route towards the Slovenian coast, Istria, and Kvarner, attracts visitors in transit and day trippers to the municipality”.

There were two workshops for interested parties and the general public executed during the drafting of the Strategy. The Strategy expects that tourism will also contribute to sustainable mobility and the quality of life of the residents in the municipality in the future. This could also be achieved by improving signposting and markings, cycling infrastructure, and improved sustainable mobility throughout the year for everyone (rentals, e-bikes, bike transport, a shuttle, hop on/hop off).

Cycling strategy is recognised as one of the most promising tourist products. Among the measures related to this, there is the intention to plan a more ambitious project, i.e. the planning of a Postojna–Predjama recreational cycling trail.

Predjama is also mentioned in the infrastructure section: dealing with the traffic and parking flows in Predjama belongs among the four investment priorities. The comprehensive organisation of access to Predjama Castle encompasses car parks, the introduction of alternative options for transport to Predjama in place of cars, and the signposting of a walking trail nearby. The Municipality is the responsible authority for these measures. This section also features important measures for the city of Postojna. Two public transportation entry points are supposed to be introduced – the bus and railway station, from where signposted routes would lead to the city and the Postojna Cave.

The measures of green mobility and accessibility include local circular transport between all the tourist sights (Postojna – Postojna Cave – Predjama – Planina Field – Postojna, Postojna – Razdrto/Strane – Predjama – Planina – Postojna) and the extension of the Furman city bus route to include the railway station and the Postojna Cave.

Vision of the development of the traffic flow to Predjama Castle

Changing the mobility habits of daily visitors, employees, and residents who are in Predjama every day requires time for the development and gradual implementation of changes. These need to be adapted later on, monitored, changed and upgraded. At the same time, all public groups need to be notified and cooperated with.

Increasing the sustainable mobility for trips to Predjama without actually reducing the number of visitors to Predjama Castle thus needs to be gradual, starting with simpler and softer measures, which are then logistically upgraded and extended through four phases.

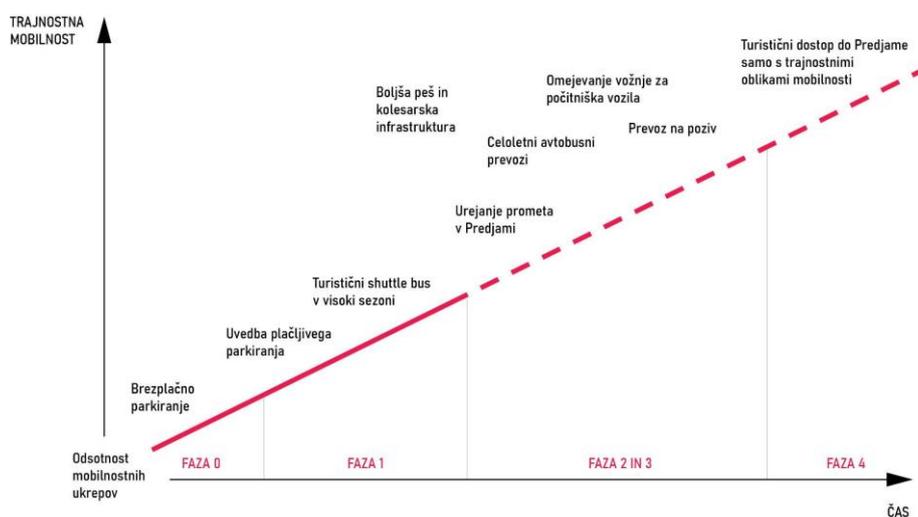


Figure 16: Possible development of traffic flows in Predjama.

STAGE 0 – NO MOBILITY MEASURES

Stage 0 envisions no organisation of mobility for access to Predjama. Because the visitor numbers to Predjama Castle keep increasing and because there is a lack of infrastructure and information on other access methods, an increase in car traffic can be expected, which in turn means more traffic jams, parking chaos, and reduced traffic safety. This all means worsening the experience of visitors and the dissatisfaction of residents.

State/operation:

- Free parking.
- There are almost no alternative forms of mobility.

Expectations:

- Increasing car traffic with growing visitor numbers due to the lack of alternatives.
- The experience of tourists to Predjama Castle is worsening.
- Dissatisfaction of residents due to chaotic traffic.

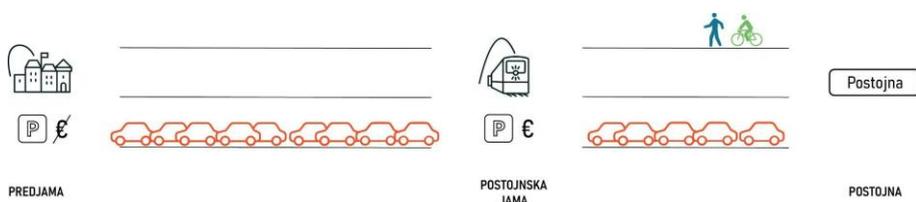


Figure 17: Traffic flow on the way to Predjama in absence of mobility measures (Stage 0).

STAGE 1: MEASURES DURING HIGH SEASON (CURRENT STATE)

The current state with some mobility measures is stage one – the first step to a better mobility management on the way to Predjama. Directing vehicles to the car parks reduces the confusion of drivers and slightly relieves the traffic chaos. Paid parking encourages visitors to use the shuttle bus from Postojna Cave. More active visitors can also utilise circular cycling and walking trails.

If this state remained unchanged, car traffic could be reduced a little due to parking limitations and the option to use the shuttle bus. The tourist experience would remain insufficient, predominantly due to the chaotic traffic in the village, the complete separation of various providers of public transportation, and the lack of information on alternative travel options.

State/operation:

- Directed parking.
- Paid parking.
- Tourist shuttle bus providing transportation between Postojna Cave and Predjama.
- Partly organised walking and cycling links.

Expectations:

- Slow reduction of car traffic due to the lacking situation on the roads and the increasing awareness of visitors.
- Mass usage of the bus during rush hours.
- Few hikers and cyclists.
- Dissatisfaction over the lack of transport links between the city of Postojna and the main two tourist sights.

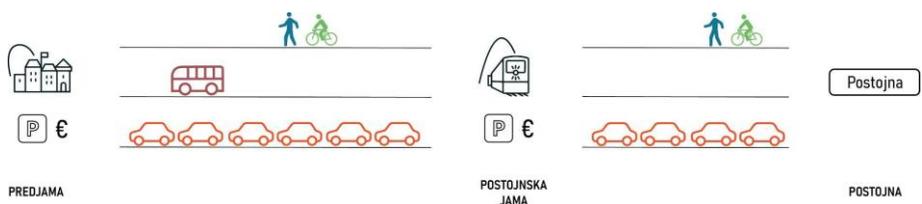


Figure 18: Current traffic flow state on the way to Predjama during high season (Stage 1).

STAGE 2: IMPROVEMENT OF ALTERNATIVES TO CAR TRANSPORT

A better management of the car traffic and the removal of cars from pedestrian surfaces to provide more safety and space to the latter could vastly improve visits to Predjama. Additional bus links with Postojna could provide car-free travel for visitors. More information and promotion would also provide more spontaneous travel. The parking fees in Predjama with advance information on the rates would further encourage that. More trails with better signposting would encourage more cyclists and hikers. Such an improvement of alternatives to car travel envisions a reduction of car traffic by 15 % in stage two.

State/operation:

- Well-developed public transportation infrastructure in Predjama.
- Dedicated pedestrian surfaces.
- Improvement of cycling links.
- Bus transportation between Postojna, Postojna Cave, and Predjama for tourists and residents throughout the year.
- Discouraging car travel to Predjama through parking rates and information.
- Promotion of sustainable mobility forms.

Expectations:

- Reduction of car traffic by 15 %.
- Increased bus usage due to better information and convenience.
- More cyclists due to the better promotion and attractiveness of cycling.

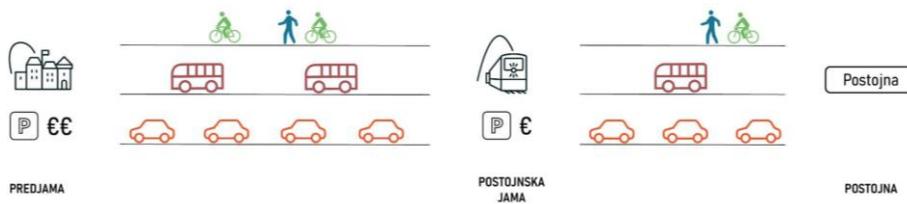


Figure 19: Traffic flow state on the way to Predjama with the improvement of alternatives to car travel (Stage 2).

STAGE 3: STAGE 2 UPGRADE – THE NORWEGIAN PROPOSAL

Visits to Predjama are concentrated in the summer months and afternoon hours with even more visitors when the weather is not good. The management of castle visits in the peak hours, which cause the most traffic problems, could be distributed over other parts of the day and year. This would also make the management of parking lots and bus transportation easier. Stage 3 also envisions an increase in parking fees in Predjama to encourage car-free travel. The castle’s car parks would be used by 60 % fewer vehicles than they are currently as visitors would be informed about the parking in advance in Postojna or next to Postojna Cave.

Stage 3 is also called the “Norwegian proposal” since the Norwegian partners would approach the traffic issues this way in the Predjama Sustainable project – with premium parking rates and timed tickets distributed throughout the day.

State/operation:

- Managing castle visits – the re-distribution of the peak hours to the parts of days and the year with fewer visitors.
- Additionally discouraging parking in Predjama through parking rates.

Expectations:

- Reduction of car traffic by 60 %.
- Most visitors travel by bus and the share of cyclists increases.

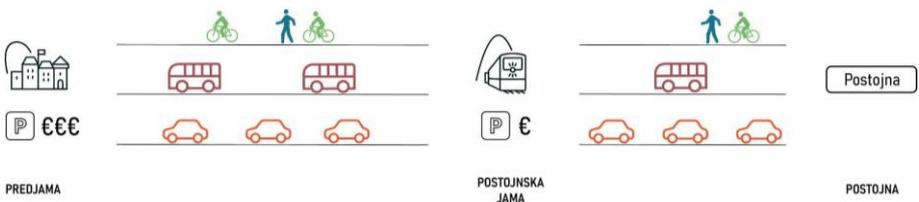


Figure 20: Traffic flow state on the way to Predjama upon the introduction of mobility measures according to the Norwegian proposal (Stage 3).

STAGE 4: CAR-FREE PREDJAMA CASTLE VISITS

The long-term mobility vision for travel to Predjama is as sustainable as possible. The remote village with cultural and natural attractions could only be visited in a sustainable way – by bus, bike or on foot. A simple change from the car to sustainable mobility options would be ensured by a consistent information system and well-developed infrastructure. The remaining vehicles arriving in Predjama would be those of persons with disabilities, residents and company/commercial vehicles.

State/operation:

- Car access for tourists is limited.
- Car access is always possible for residents and their guests, employees, organisations, and persons with disabilities.
- Improvement of other sustainable mobility forms.

Expectations:

- Reduction of car traffic by 95 %.
- Visitors use sustainable mobility options.
- A vast majority of visitors travel by bus with a large share opting for active mobility.

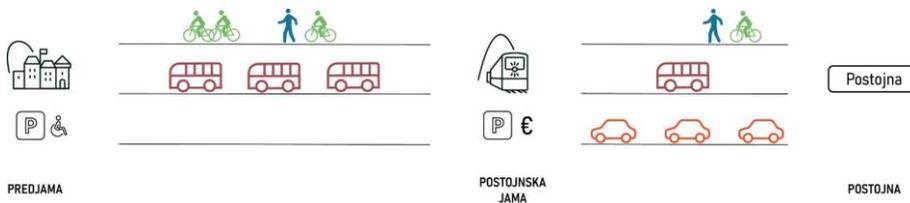


Figure 21: Traffic flow state on the way to Predjama with a total ban of access with cars for visitors (Stage 4).

Predjama Sustainable project objective

The Predjama Sustainable project aims to solve the challenges posed by heavy traffic loads due to the high visitor numbers at Predjama Castle in order to reduce non-sustainable mobility forms on the way to Predjama and in Predjama itself. Such a development of the tourist destination also follows the general trends of Slovenian tourism, which aims at sustainable, responsible, inclusive and resilient tourism. The partners have set an objective that needs to be achieved within one year for the project to be successful:

The drafted mobility plan and the implemented measures from the project will improve the utilisation of sustainable mobility forms by the end of the project by at least 5 percentage points within the Predjama Sustainable project.

The initial state as a benchmark for travel habits when accessing Predjama was measured before the introduction of the first mobility measures in Predjama in the summer of 2022. Back then, 74 % of visitors to Predjama arrived with their own motorised vehicles – a car, van, caravan or motorbike. The remaining 26 % arrived at the castle mostly by bus, but also by bike or on foot. To reach the goal in 2023, this share must increase to 31 %.

The goal will be achieved by following the vision of the development of more sustainable traffic flows on the way to Predjama Castle. The first step in this direction is the implementation of Stage 2, which aims at improving alternatives to the car.

Sustainable mobility pillars

The project goal and the ambition of the Municipality and the Postojna Cave Park, as well as the desire of the residents, is the improvement of the quality of the environment, living, and visiting the Predjama area. Acting towards more sustainable mobility can contribute to that with improved accessibility, traffic safety, reduced emissions, and better spatial planning. The current Stage 1 in the development of the traffic flow towards something more sustainable will be just the starting point for the implementation of Stage 2 measures, from where the aim is operations in Stage 3. Further on, the document outlines the measures that the stakeholders in Predjama will implement in the short-term (before the coming tourist season), mid-term (in the coming two years), and in the long-term (in the coming five years). The measures are distributed over five pillars – active mobility with an emphasis on walking and cycling, public transportation, motorised public transport, information and promotion, as well as management and planning.

PILLAR 1: Walking and cycling

ACHIEVEMENTS

The trip to Predjama will not pose much of a challenge to experienced hikers and bikers who prepare for the trip in advance. Predjama can be reached on foot via the Dragon's Path and it is also passed by other long-distance trails; cycling access is possible via the Cave, Castle or Erasmus' Bike Trail. Electric bikes can be rented in Postojna (Čeho bike sport centre) and Landol (Lipizzaner Lodge).

CHALLENGES

Less experienced hikers and cyclists will find it harder to find the hiking and bike trails since they are marked insufficiently or unclearly. This is the reason why many cyclists end up on the main and busy Postojna–Predjama road, where cycling is neither pleasant nor safe. Once cyclists arrive in Predjama, there is nowhere to safely park the bikes, there are few resting points with benches, and no drinking stations to quench their thirst. The ones arriving by car need to make the trip from the car park to the castle among moving cars. There is also no safe walking link from Predjama to Pristava and Bukovje with its affiliated primary school.

SPECIFIC PILLAR OBJECTIVE

To establish three cycling and one walking link to Predjama, and to improve the walking conditions in Predjama.

MEASURES

WALKING AND CYCLING						
Collection of measures	Measure	Carrier	Implementation schedule			Financial frame
			2023	2024	2027	
Pedestrians in Predjama	Walking links in Predjama.	MoP PJ				€15,000.00
	A pleasant and safe space between the linden tree and Stara dama.	MoP PJ				€40,000.00

	Urban facilities in Predjama.	MoP PJ		Other sources
	Pavement between Predjama and Bukovje.	MoP LC		€300,000.00
Cyclists in Predjama	Cycling infrastructure on the platform between the linden tree and Stara dama.	MoP PJ		€12,000.00
Actively to Predjama	Dragon's Path marking and setting up rest points.	MoP		€18,000.00
	Cycling links between Postojna and Predjama.	MoP		€75,000.00

PILLAR 2: Public transportation

ACHIEVEMENTS

The regional bus stops next to Postojna Cave in agreement with the public passenger transportation provider. Visitors can continue their journey to Predjama Castle in a shuttle bus operating every 20 minutes during the high season to visit both attractions. Schoolchildren are transported to the primary school in Postojna by a school bus. The Furman city bus provides transportation through Postojna, linking various parts of town.

CHALLENGES

The journey to Postojna Cave and Predjama Castle is a unique challenge for travellers arriving in Postojna by public transportation. During the low season, the trip is practically impossible without private transport. The Furman city bus is not connected to the railway station or Postojna Cave. All public passenger transportation stops feature insufficient infrastructure and information. Locals have no suitable alternative to car transport, except the school bus.

SPECIFIC PILLAR OBJECTIVE

To increase the number of passengers on busses to Predjama by improving the service.

MEASURES

PUBLIC TRANSPORTATION						
Collection of measures	Measure	Carrier	Schedule			Financial frame
			by 2023	by 2024	by 2027	
Public passenger transportation on vehicles	Busses with provisions for the transport of bikes.	MoP PJ				Included in Measure 2.4.
	Bus stops in Predjama, next to the Postojna Cave, and at other locations.	MoP PJ				€30,000.00
Public passenger transportation on stations	Improvements to the bus and railway stations in Postojna.	MoP PJ SŽ Provider of public passenger transportation				€20,000.00
Public passenger transportation on links	Regular busses between Postojna and Predjama.	MoP				€100,000.00
	Furman line to Postojna Cave.	MoP PJ				€62,000.00

PILLAR 3: Motorised traffic

ACHIEVEMENTS

The company Postojnska jama d.d. especially is already tackling tourist peak times, which also mean heavy traffic loads near Postojna Cave and Predjama. Postojna Cave itself responds to increased visitor numbers by increasing parking capacities on nearby grass surfaces. In case of prolonged rain (when the grass surfaces are soaked), P+R lots are organised in Postojna. There is paid parking at the Postojna Cave and in Predjama. The traffic chaos in Predjama is controlled by traffic supervisors who collect the parking fees.

CHALLENGES

Large vehicle numbers on the way to Predjama and in Predjama itself cause problems on the road and in car parks. When large vehicles meet on the narrow road, it causes traffic jams, further exacerbated by illegal parking. The parking enforcement authority, who could organise the parking better, has insufficient staff and supervising foreigners is difficult from an administrative point of view. There have been frequent conflicts in Predjama due to the unsatisfactory traffic flow and common surfaces that pedestrians and vehicles need to share. The space is dangerous and unpleasant for both.

SPECIFIC PILLAR OBJECTIVE

To reduce the share of motorised traffic on the way to Predjama by 15 %.

MEASURES

MOTORISED TRAFFIC						
Collection of measures	Measure	Carrier	Schedule			Financial frame
			by 2023	by 2024	by 2027	
Parking	Comprehensive management of stationary traffic in Predjama.	MoP PJ				€3,000.00
	Reduction of incorrect parking along the road.	MoP Private owners				€30,000.00
	Control over incorrect parking by the parking enforcement authority.	MoP				Other sources
	Setting up P+R lots in Prepih.	MoP Private owners				€34,000.00
	Setting up the lower gravel car park.	PJ				Other sources
Traffic direction	Traffic direction in Predjama.	MoP PJ				€15,000.00
	Introduction of floor markings for bus stops and turning areas.	MoP PJ				€30,000.00

PILLAR 4: Information and promotion

ACHIEVEMENTS

Various actors in the Postojna area already have well-designed websites (Postojna Cave, Visit Postojna, Green Karst) providing information on access to Postojna, as well as various recreational and cycling trails.

CHALLENGES

The access information focuses on arriving by car, of course, due to the current state of sustainable mobility. Once the conditions and the user experience with public transportation improve, there needs to be a stronger focus on different access to Postojna, Postojna Cave and Predjama Castle. There is currently insufficient information for visitors on parking and its availability at various locations, as well as alternatives to car travel. Bus stops do not provide up-to-date information on bus arrival and departure times. The Postojna tourist destination shall find its promotional niche in sustainable tourism, and shall look for entrepreneurial opportunities and innovative tourist offerings in the sustainable mobility of visitors.

SPECIFIC PILLAR OBJECTIVE

To highlight sustainable arrival methods to Predjama Castle on all promotional channels.

MEASURES

INFORMATION AND PROMOTION						
Collection of measures	Measure	Carrier	Schedule			Financial frame
			by 2023	by 2024	by 2027	
Information and promotion	Information on sustainable mobility options when reaching Predjama.	MoP PJ RDA GK				€25,000.00
	Promotion of parking at the Postojna Cave.	MoP PJ				€13,100.00
	Interactive display for the promotion of sustainable mobility forms.	MoP				€19,000.00
	Sustainable mobility slogans.	MoP PJ				€1,500.00
	Mobile app for the promotion of walking and cycling.	PJ IZ				€12,000.00
	Short film about sustainable mobility in Postojna and Predjama.	MoP PJ IZ RDA GK				€8,900.00

Journalistic study tour.	PJ MoP				€5,000.00
Online sale of timed tickets.	PJ				€0.00
Digital displays on the availability of parking spots in Predjama.	PJ				€7,000.00
Accessibility of information on public transportation.	MoP PJ Public passenger transportation provider				€50,000.00

PILLAR 5: Management and planning

ACHIEVEMENTS

A workgroup comprising the Municipality of Postojna, Postojnska jama d.d., the Bukovje local community, and the locals of Predjama was established within the preparation of the mobility plan. In addition to the mobility plan, the group also focussed on the wider topic of Predjama as it is in the best interest of everyone to maintain this new cooperation after the end of the Predjama Sustainable project.

CHALLENGES

The main challenge partly addressed by the workgroup at the meetings is the cooperation among various actors and the harmonisation of the management of Predjama Castle, including the entire village of Predjama. Common interests are already crucial to be maintained among the residents alone since they act in various roles – as residents, providers of tourist services, and members of various societies operating in the area of Predjama. It is crucial to connect with the municipality to tackle bureaucratic obstacles. Connections with Postojnska jama d.d. is crucial for better synergy among providers of tourist services. Co-dependence is also present between the municipality and Postojnska jama d.d., other providers of tourist services, and providers of public transportation.

SPECIFIC PILLAR OBJECTIVE

To establish a society management system among all the stakeholders in Predjama.

MEASURES

MANAGEMENT AND PLANNING						
Collection of measures	Measure	Carrier	Schedule			Financial frame
			by 2023	by 2024	by 2027	
Cooperation	Predjama workgroup	MoP PJ LC RDA GK				€0.00
	Cooperation with railway actors.	MoP				€0.00
	Inclusion of local communities in the sustainable mobility offerings.	MoP				€9,000.00
Development	The medieval festival schedule contributes to a more balanced visit during the season.	PJ Kašča Society MoP				€0.00
	Field development counselling service.	MoP AU Institute Znanje				€3,000.00
	Counselling service.	MoP Institute Znanje				€8,000.00

List of abbreviations

CTS	Comprehensive Transport Strategy
PPT	Public passenger transportation
LC	Local community
MC	Ministry of Culture
MP	Mobility plan
MoP	Municipality of Postojna
PC	Predjama Castle
PJ	Postojnska jama, d.d.
PC	Parking space
PCP	Postojna Cave Park
P+R	Park & ride
RDA GK	Regional development agency Green Karst
MoP TDS	Tourism Development Strategy of the Municipality of Postojna
SŽ	Slovenian railway company Slovenske železnice
IZ	Institute Znanje

Annexes

Annex 1: Description of measures

Annex 2: Report on the analysis of daily visitors to Predjama [Predjama Sustainable – vehicle counting in Predjama](#)

Annex 3: Report on the survey for the residents of Predjama and surrounding villages [Predjama Sustainable – report on the survey for residents](#)

Annex 1: Description of measures

WALKING AND CYCLING

No.	1.1
Measure	Walking links in Predjama.
Description	Marking pedestrian surfaces to establish safe links between the car parks and Predjama Castle (a blue belt along the road, pedestrian crossings, a safe and well-maintained gravel path). Pedestrian surfaces shall be set up to provide universal accessibility.
Carriers and their roles	The MoP sets up pedestrian surfaces on their property. PJ sets up a gravel link between the lower car parks and the road.
Schedule	Until 2024
Cost estimation	€15,000.00

No.	1.2
Measure	A pleasant and safe space between the linden tree and Stara dama.
Description	Setting up a platform between the linden tree and Stara dama to provide a safe car-free space. Removal of parking spaces (except for people with disabilities) and the interruption of the one-way loop from the upper car parks. Setting up pedestrian-friendly areas – village square.
Carriers and their roles	The MoP leads the activity, obtains a project solution, manages the traffic signs, and coordinates the activities for the MDSP. PJ cooperates in the space utilisation agreements.
Schedule	Until 2024
Cost estimation	€40,000.00

No.	1.3
Measure	Urban facilities in Predjama.
Description	Unified urban facilities are installed on the platform – benches, drinking stations, signposts, information boards, etc.
Carriers and their roles	MoP leads the activity. PJ cooperates.
Schedule	Until 2024
Cost estimation	Other sources

No.	1.4
Measure	Pavement between Predjama and Bukovje.
Description	Construction of a pavement between Predjama and Bukovje for improved traffic safety. It would be used by tourists and locals.
Carriers and their roles	MoP leads the activities.
Schedule	To obtain plots of land along the road by 2024, pavement construction by 2027.

Cost estimation	€300,000.00
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No.	1.5
Measure	Cycling infrastructure on the platform between the linden tree and Stara dama.
Description	Installation of bike stands and e-bike charging stations on the platform between the linden tree and Stara dama.
Carriers and their roles	MoP leads the activities, purchases and installs. PJ cooperates.
Schedule	Until 2024.
Cost estimation	€12,000.00

No.	1.6
Measure	Dragon's Path marking and setting up rest points.
Description	Signposting of the Dragon's Path from Landol on the field by means of signposts or markings. Setting up resting points with information boards and similar infrastructure that is interesting for hikers.
Carriers and their roles	MoP leads the entire activity.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€18,000.00

No.	1.7
Measure	Cycling links between Postojna and Predjama.
Description	Better marking of the existing cycling trails and setting up separate cycling trails where these run along main roads.
Carriers and their roles	MoP takes on the entire activity.
Schedule	The marking is included in submitting the Predjama Sustainable project – execution in 2023. New cycling infrastructure by 2027.
Cost estimation	€75,000.00

No.	1.8
Measure	Cycling infrastructure at key spots between Postojna and Predjama.
Description	Installation of bike stands and e-bike charging stations at key locations, e.g. transfer points, tourist attractions, accommodation and dining facilities...
Carriers and their roles	MoP installs a charging station in Prepih. PJ installs a charging station on their property. Other providers of tourist services install charging stations on their property.
Schedule	The Predjama Sustainable project submitting envisions this activity at the Prepih location – execution in 2023. Execution at other key locations by 2027.

Cost estimation	€9,000.00
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Pillar 1 value	€469,000.00
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PUBLIC TRANSPORTATION

No.	2.1
Measure	Busses with provisions for the transport of bikes.
Description	Shuttle buses shall be equipped with bike holders or trailers in order to increase the interest of cyclists, at least for one-way trips.
Carriers and their roles	MoP and PJ require transportation providers to install additional bike transport facilities.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	Included in Measure 2.4.

No.	2.2
Measure	Bus stops in Predjama, next to the Postojna Cave, and at other locations.
Description	Setting up bus stops in Predjama, next to the Postojna Cave, and at any other shuttle bus stop with floor markings, covered shelters, seats, bus schedules, bike stands... The stops shall be unified for all types of bus transport: tourist shuttle bus, regular Postojna–Predjama busses, and the Furman city bus.
Carriers and their roles	MoP sets up public stops. PJ sets up stops at the Postojna Cave Park.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€30,000.00

No.	2.3
Measure	Improvements to the bus and railway stations in Postojna.
Description	Improvement of the user experience at the Postojna bus and railway stations, and the development of these points into multimodal points for seamless transfers. The provision of additional information, installation of lockers, up-to-date information on mobility options and schedules.
Carriers and their roles	MoP coordinates the activity and the information. PJ cooperates. SŽ and the PPT enable the installation of information and lockers.
Schedule	Until 2024.
Cost estimation	€20,000.00

No.	2.4
Measure	Regular busses between Postojna and Predjama.
Description	Free bus transport between Postojna and Predjama for school children, employees and tourists throughout the year.
Carriers and their roles	MoP organises the transportation.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€100,000.00

No.	2.5
Measure	Furman line to Postojna Cave.
Description	Connection to the Postojna Cave by the Furman city bus line in order to make the tourist destination better accessible for visitors and employees.
Carriers and their roles	MoP organises the new Furman line. PJ provides the stop.
Schedule	Until 2024.
Cost estimation	€62,000.00

No.	2.6
Measure	Frequent tourist shuttle bus operation organised by PJ
Description	The tourist shuttle bus between Postojna Cave and Predjama Castle operates in the high season. The frequency is adapted to the number of visitors. The shuttle bus shall also be available with a sufficient frequency outside the high season in the future.
Carriers and their roles	PJ organises the transportation.
Schedule	Until 2027.
Cost estimation	€62,400.00

Pillar 2 value	€274,400.00
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MOTORISED TRAFFIC

No.	3.1
Measure	Comprehensive management of stationary traffic in Predjama.
Description	<p>High-season parking is organised in the following way:</p> <ul style="list-style-type: none"> – Tourists in the lower car parks – Locals (residents and employees), tourist organisations, and motorbike drivers in the upper car parks entering and departing at the same spot below the cemetery (and not departing past Stara dama onto the platform) – Persons with disabilities and busses at the beginning of the platform between the linden tree and Stara dama <p>Low-season parking is organised in the following way:</p> <ul style="list-style-type: none"> – Cars in the upper car parks – Persons with disabilities and busses at the beginning of the platform between the linden tree and Stara dama <p>Introduction of a more stringent parking flow in Predjama (parking rates). Marking of parking spaces for people with disabilities at the beginning of the platform. Delivery and utility vehicles are limited to morning hours when the castle is not yet open to visitors. The car park at the cemetery is only dedicated to cemetery visitors and not visitors to the castle.</p>
Carriers and their roles	<p>MoP sets up parking on their property providing traffic signs for delivery and utility vehicles.</p> <p>PJ sets up parking on their property.</p>
Schedule	Until 2024.
Cost estimation	€3,000.00

No.	3.2
Measure	Reduction of incorrect parking along the road.
Description	Reduction of incorrect parking risk along the road between Bukovje and Predjama, including clear traffic signs on where parking is not allowed. Installation of barriers along the road (such as boulders connected by chains that can be unlocked by landowners) and clear traffic signs on where stopping and parking are not allowed.
Carriers and their roles	<p>MoP sets up the signs and installs the barriers.</p> <p>Private owners provide their consent.</p>
Schedule	Already in discussion between the local community and the Municipality's operations. Execution by 2024 at the latest.
Cost estimation	€30,000.00

No.	3.3
Measure	Control over incorrect parking by the parking enforcement authority.
Description	Regular control by the authorities over incorrect parking by the cemetery, along the road, and on other locations.
Carriers and their roles	The Municipality of Postojna has already obtained the workforce for the reinforcement of parking supervision for Postojna from the Inter-Municipal Inspectorate and Parking Enforcement Authority of the municipalities of Postojna, Cerknica, Pivka, the Lož Valley and Bloke. It would have to be mostly present in Predjama.

Schedule	From 2023.
Cost estimation	Other sources

No.	3.4
Measure	Setting up P+R lots in Prepih.
Description	Setting up P+R lots in Prepih, in the Veliki Otok commercial zone or at a third location. Parking provisions for tourists for transfer to the newly set-up bus.
Carriers and their roles	MoP carries out the investment.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€34,000.00

No.	3.5
Measure	Setting up the lower gravel car park.
Description	Setting up the lower car park in Predjama with oil traps, a high water level alarm, and parking meters.
Carriers and their roles	PJ takes on the entire activity.
Schedule	The activity is already in progress and will be finished in 2023.
Cost estimation	Other sources

No.	3.6
Measure	Traffic direction in Predjama.
Description	Reorganisation of the car turning radius by the church to enter the lower car parks and clear ground markings to direct the traffic.
Carriers and their roles	The authority lies with MoP. PJ cooperates.
Schedule	Until 2024.
Cost estimation	€15,000.00

No.	3.7
Measure	Introduction of floor markings for bus stops and turning areas.
Description	Setting up and marking the space on the platform used by busses for manoeuvring and parking.
Carriers and their roles	MoP leads the activity for providing ground markings. PJ and MC cooperate.
Schedule	Until 2024.
Cost estimation	€30,000.00

No.	3.8
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Measure	CP on the site of the former Erazem motel
Description	Setting up a CP (caravan park) on the site of the former Erazem motel and limiting further approach for caravans.
Carriers and their roles	MoP sets up traffic signs informing on the limits. PJ sets up the CP.
Schedule	Start of the negotiations regarding the land by 2024, execution by 2027.
Cost estimation	€150,000.00

Pillar 3 value	€262,000.00
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INFORMATION AND PROMOTION

No.	4.1
Measure	Information on sustainable mobility options when reaching Predjama.
Description	Priority for sustainable mobility forms in the information on access to Predjama. Information on sustainable access shall be given priority in the promotion on websites, in social media, at the bus and railway stations, at local public transport stops, within the POSbikes system, and on poster sites along the roads to Postojna Cave.
Carriers and their roles	MoP coordinates the information in all communication channels. PJ provides information in their promotion materials. RDA GK takes care of the
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€25,000.00

Pripombe dodal [A1]: Manjka nadaljevanje besedila v izvorniku.

No.	4.2
Measure	Promotion of parking at the Postojna Cave.
Description	Promotion of parking at the Postojna Cave in order to continue the journey to Predjama without the car: by shuttle bus or by active mobility. Information makes sense within the initial information on Predjama Castle, i.e. during online ticket purchase, at the car parks at the Postojna Cave, etc.
Carriers and their roles	PJ leads the promotion of parking at the Postojna Cave. MoP cooperates.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€13,100.00

No.	4.3
Measure	Interactive display for the promotion of sustainable mobility forms.
Description	Interactive graphics or a map accessed via a QR code that provides information on and promotes sustainable mobility on the way to Predjama.
Carriers and their roles	MoP takes on the entire activity.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.

Cost estimation	€19,000.00
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No.	4.4
Measure	Sustainable mobility slogans.
Description	Marketing statements or slogans for the promotion of sustainable mobility used by the relevant actors in Postojna and Predjama, especially at PJ.
Carriers and their roles	PJ leads. IPoP and MoP cooperate.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€1,500.00

No.	4.5
Measure	Mobile app for the promotion of walking and cycling.
Description	Mobile app for the promotion of walking along the Dragon's Path and cycling on the Erasmus' Trail.
Carriers and their roles	PJ is responsible for the development of the app. IZ cooperates.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€12,000.00

No.	4.6
Measure	Short film about sustainable mobility in Postojna and Predjama.
Description	Promotional video for encouraging sustainable mobility when visiting Predjama and the Postojna Cave.
Carriers and their roles	MoP is responsible for the preparation. PJ, IZ and RDA GK participate.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€8,900.00

No.	4.7
Measure	Journalistic study tour.
Description	A visit by journalists who can be shown the opportunities for sustainable arrivals in Predjama and the Postojna Cave, as well as progress in this field as a result of the Predjama Sustainable project.
Carriers and their roles	PJ is the responsible partner. MoP cooperates.
Schedule	Included in submitting the Predjama Sustainable project, execution in 2023.
Cost estimation	€5,000.00

No.	4.8
Measure	Online sale of timed tickets.
Description	Timed tour of Predjama Castle. Promotion of morning and out-of-season visits to the castle.
Carriers and their roles	PJ takes on the entire activity.
Schedule	Until 2024.
Cost estimation	€0.00

No.	4.9
Measure	Digital displays on the availability of parking spots in Predjama.
Description	Digital displays at the Postojna Cave informing about the availability and rates of parking in Predjama, as well as an invitation to park at the Postojna Cave and use the shuttle bus.
Carriers and their roles	PJ takes on the entire activity.
Schedule	Until 2027.
Cost estimation	€7,000.00

No.	4.10
Measure	Accessibility of information on public transportation.
Description	Setting up digital information displays at bus stops. Transportation information shall be available on Google Maps and transport search engines, such as ijpp.si.
Carriers and their roles	MoP leads the implementation. PJ and the PPT provider cooperate.
Schedule	Until 2027.
Cost estimation	€50,000.00

No.	4.11
Measure	Inclusion of PPT, cycling and walking in tourist products.
Description	Preparation of tourist products linked to arrivals/departures by train/bus, cycling and walking.
Carriers and their roles	PJ, RDA GK and others develop the tourist products independently or in cooperation.
Schedule	Until 2027.
Cost estimation	€0.00

Pillar 4 value	€141,500.00
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MANAGEMENT AND PLANNING

No.	5.1
Measure	Predjama workgroup
Description	Monthly coordination of the workgroup made up of institutional and local actors.
Carriers and their roles	MoP leads the activity. PJ, RDA GK, and residents cooperate.
Schedule	In progress. Ensuring its upkeep.
Cost estimation	€0.00

No.	5.2
Measure	Cooperation with railway actors.
Description	Improved cooperation with the infrastructure division of the Slovenian railway company and the Slovenian Infrastructure Agency. Introduction of coordination meetings, planning and monitoring.
Carriers and their roles	MoP leads the activity.
Schedule	Included in submitting the Predjama Sustainable project, start in 2023.
Cost estimation	€0.00

No.	5.3
Measure	Inclusion of local communities in the sustainable mobility offerings.
Description	The inclusion of local community actors in the cooperation with their services, such as the transportation of visitors to Predjama with a carriage, bike rental, the organisation of bike tours, guided walking tours, etc.
Carriers and their roles	MoP leads the activity. IZ cooperates.
Schedule	Included in submitting the Predjama Sustainable project, start in 2023.
Cost estimation	€9,000.00

No.	5.4
Measure	The medieval festival schedule contributes to a more balanced visit during the season.
Description	Rescheduling the medieval festival to another date outside the main season. This could improve the visibility, recognisability and publicity.
Carriers and their roles	Kašča Society leads. PJ cooperates.
Schedule	Execution in 2023.
Cost estimation	€0.00

No.	5.5
Measure	Predjama and Bukovje development programme.
Description	The preparation of workshops on the development and potentials of Predjama and Bukovje in other areas in line with the mobility plan preparation.
Carriers and their roles	MoP leads. RDA GK and IZ cooperate.
Schedule	Beginning of execution in 2023.
Cost estimation	€0.00

No.	5.5
Measure	Field development counselling service.
Description	Counselling service made up of the Municipality, administrative unit, and providers of consent, which would help people implement their initiatives or understand administrative options.
Carriers and their roles	MoP leads. IZ and the Postojna Administrative Unit cooperate.
Schedule	Beginning of execution in 2023.
Cost estimation	€3,000.00

No.	5.6
Measure	Counselling service.
Description	Counselling service for the support of entrepreneurial initiatives, e.g. on how to operate as a society, provide complementary activities, operate as a sole entrepreneur in addition to the regular job, etc., as well as on the development and potentials of Predjama and Bukovje in other areas in line with the mobility plan preparation.
Carriers and their roles	MoP leads. RDA GK and IZ cooperate.
Schedule	Beginning of execution in 2023.
Cost estimation	€8,000.00

No.	5.7
Measure	Sustainable tourism initiatives.
Description	Initiatives for sustainable and boutique tourist products.
Carriers and their roles	MoP leads. RDA GK and IZ cooperate.
Schedule	Start of execution by 2027.
Cost estimation	€10,000.00

Pillar 5 value	€30,000.00
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Total project value	€1,176,900.00
Predjama Sustainable project funds	€214,995.00
Funds provided by the carriers of measures	€961,905.00