




GOLDENPASS
EXPRESS

MONTREUX - GSTAAD - INTERLAKEN

Facts and figures about the GoldenPass Express

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PREMIUM SWISS TRAVEL EXPERIENCE

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Prices, timetables and train composition are subject to change.
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Informations

OFFICIAL NAME

GoldenPass Express (GPX)

LAUNCH DATE

11 décembre 2022

ITINERARY

The GoldenPass Express will run unchanged from Montreux to Interlaken from 11 December 2022 with a single trip in each direction. It will be expanded to four round trips per day from 11 June 2023.

DISTANCE/TRACKS

The journey between Montreux and Interlaken covers 115.34 km, of which 62.43 km on metric gauge (Montreux – Zweisimmen) and 52.91 km on standard gauge (Zweisimmen – Interlaken).

STOPS

The GoldenPass Express stopping in:

- Montreux
- Montbovon
- Château-d'Oex
- Gstaad
- Schönried
- Saanenmöser
- Zweisimmen
- Boltigen
- Erlenbach i.S.
- Oey-Diemtigen
- Wimmis
- Spiez
- Interlaken West
- Interlaken Ost



The GoldenPass Express runs through three cantons: Vaud, Fribourg et Bern.

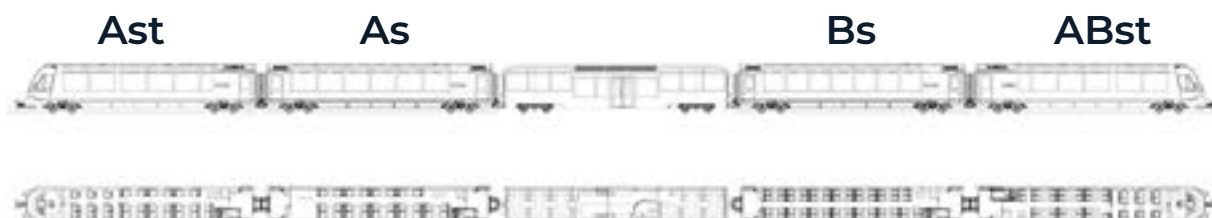
NUMBER OF TRAINS AND COACHES

The GPX consists of four trains: three in service and one in reserve and/or maintenance. The GoldenPass Express fleet consists of 23 coaches, all of which offer panoramic views.

- 4 x Ast (Prestige/1st class).
- 4 x ABst (Prestige/2nd class).
- 4 x As (1st class).
- 4 x Bs (2nd class).
- 4 x Bs (2nd class, with low floor).
- 3 x Bsi (2nd class, interface).

19 of the 23 coaches were delivered to MOB by Stadler Rail between September 2020 and the end of 2021. The low-floor coaches will be introduced during the course of 2023.

MOB has ordered 58 variable gauge bogies from Alstom (i.e. two bogies per coach plus spares). They will be delivered progressively from the spring 2022 onwards.



TECHNICAL DATA

Locomotives (all without variable gauge bogie):

- Ge 4/4 III series 8000 (MOB), i.e. Ge 4/4 III 8001, 8002, 8004.
 - Length: 16,69 m. Weight: 62 t.
- Re 465 (BLS).
 - Length: 18,5 m. Weight: 84 t.

Coaches (all with variable gauge bogies):

- As (191, 192, 193, 194). Length: 18,75 m. Weight: 26,51 t.
- ABst (381, 382, 383, 384). Length: 19,32 m. Weight: 27,01 t.
- Ast (181, 182, 183, 184). Length: 19,32 m. Weight: 27 t.
- Bs (281, 282, 283, 284). Length: 19,32 m. Weight: 25,8 t.
- Bs à plancher bas (271, 272, 273, 274). Length: 18,75 m. Weight: 25,3 t.
- Bsi (291, 292, 293). Length : 18,9 m. Weight: 25,11 t.

EQUIPMENT

The coaches are equipped with luggage compartments and ski racks. The low-floor coaches include an area adapted to passengers with reduced mobility. The low-floor coaches are equipped with toilets and baby changing facilities.

COMPOSITION OF THE TRAINS

Montreux – Interlaken:

Between Montreux and Zweisimmen (from the front to the rear of the train):

- Locomotive 8000
- ABst (Prestige/2nd class)
- Bs (2nd class)
- Bs (2nd class, with low floor) *
- As (1st classe)
- Ast (Prestige/1st classe).

The five coaches are pulled by a locomotive of the 8000 series (MOB. Length of train: 120 metres.

Between Zweisimmen and Interlaken (from the front to the rear of the train):

- ABst (Prestige/2nd class)
- Bs (2nd class)
- Bs (2nd class, with low floor) *
- As (1st classe)
- Ast (Prestige/1st classe)
- Bsi (2nd class, interface)
- Locomotive BLS

The six coaches are pushed by a locomotive BLS. Length of train: 140 metres.

Interlaken – Montreux:

Between Interlaken and Zweisimmen (from the front to the rear of the train):

- Locomotive BLS
- Bsi (2nd class, interface)
- Ast (Prestige/1st classe)
- As (1st classe)
- Bs (2nd class, with low floor) *
- Bs (2nd class)
- ABst (Prestige/2nd class)

The six coaches are pulled by a locomotive BLS. Length of train: 140 metres.

Between Zweisimmen and Montreux (from the front to the rear of the train):

- Ast (Prestige (1st class))
- As (1st class)
- Bs (2nd class, with low floor) *
- Bs (2nd class)
- ABst (Prestige/2nd class)
- Locomotive 8000

The five coaches are pushed by a locomotive of the 8000 series (MOB). Length of train: 120 metres.

* The low-floor coaches will be delivered late 2023/ early 2024.

CAPACITY OF THE TRAINS

On the metric gauge (**Montreux – Zweisimmen**), the maximum capacity of the train is **184 seats** (18 in Prestige class, 48 in 1st class and 118 in 2nd class). Once the low-floor coaches will be delivered in late 2023/early 2024, the capacity of the GoldenPass Express will be **145 seats** (18 in Prestige class, 48 in 1st class and 79 in 2nd class).

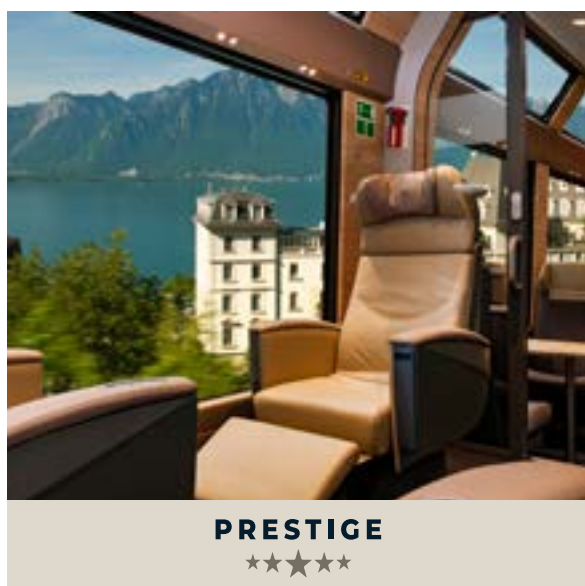
On the standard gauge (**Zweisimmen – Interlaken**), the maximum capacity of the train is **238 seats** (18 in Prestige class, 48 in 1st class and 172 in 2nd class). Pending the delivery of the low-floor coaches in late 2023/early 2024, the capacity of the GoldenPass Express will be **199 seats** (18 in Prestige class, 48 in 1st class and 133 in 2nd class).

The difference between the two trains is due to the presence of a interface coach (2nd class) on the standard gauge only. The interface wagon ensures communication between the GPX master composition and the BLS locomotive Re 465.



CLASSES

Each GoldenPass Express train offers 2nd class, 1st class and Prestige class. The Prestige class is characterised by its very comfortable, heated seats which enable the passenger to face in the direction of travel at all times. The Prestige area is raised by 40 centimetres to allow the passengers to be fully immersed in the landscape. The passenger feels like sitting in the landscape. All seats offer a panoramic view.



TIMETABLES

The journey time (Montreux – Interlaken) is approximately 3 hours 15 minutes. Main stops:

11TH December 2022 - 10TH June 2023

Montreux	09:35	Interlaken Ost	09:08
Montbovon	10:23	Spiez	09:38
Château-d'OEx	10:41	Zweisimmen	10:30
Gstaad	11:02	Gstaad	11:00
Zweisimmen	11:39	Château-d'OEx	11:18
Spiez	12:23	Montbovon	11:36
Interlaken Ost	12:50	Montreux	12:20

10TH June 2023 - 9TH December 2023

Montreux	07:35	09:35	12:35	14:35	Interlaken Ost	09:08	11:08	14:08	16:08
Montbovon	08:23	10:23	13:23	15:23	Spiez	09:38	11:38	14:38	16:38
Château-d'OEx	08:41	10:41	13:41	15:41	Zweisimmen	10:30	12:30	15:30	17:30
Gstaad	09:02	11:02	14:02	16:02	Gstaad	11:00	13:00	16:00	18:00
Zweisimmen	09:39	11:39	14:39	16:39	Château-d'OEx	11:18	13:18	16:18	18:18
Spiez	10:23	12:23	15:23	17:23	Montbovon	11:36	13:36	16:36	18:36
Interlaken Ost	10:50	12:50	15:50	17:50	Montreux	12:20	14:20	17:20	19:20

CONSTRUCTION OF THE TRAIN

All the GoldenPass Express coaches were manufactured by Stadler Rail in Bussnang (Thurgau). The nose of the train, which gives it its look, was designed by the Italian designer PininFarina. Innova Design designed the interior and some of the exterior fittings.

The concept of the variable gauge bogie was first realised by MOB in 2007, and the operating principles were verified with the first prototypes produced in house (EV09). MOB subsequently entrusted the development of the seri production of the variable gauge bogies to Alstom. This resulted in the EV18. The bogies are assembled at the Alstom/Bombardier plant in Villeneuve. They're overhaul will be carried out by the company RailTech in Villeneuve.



HISTORY OF THE GOLDENPASS EXPRESS

The idea of linking Lake Geneva, Gstaad and the lakes of Thun and Brienz dates back to 1873. Since back then the idea was to connect three of the country's economic centres by opening up the mountain regions. The railway network got built but with different gauge widths: metric gauge (1 m) between Montreux and Zweisimmen and standard gauge (1.435 m) between Zweisimmen and Interlaken. The project was rekindled several times. In 1924, the Goldenpass Association was founded. In the 1930s, the idea was to install a third rail. As a result of numerous technical and financial challenges, the project never came to fruition. The fatal blow came in 2006 since due to various factors making it impossible to cross Spiez station without an underground track. The exploding costs brought the project of the third rail to an end. In 2008, MOB relaunched the project. Since it was not possible to modify the tracks, it was decided that the coaches would be adapted instead. Thanks to variable gauge bogies and a gauge adapting ramp, the train can travel seamlessly from one gauge with to another. The dream is becoming reality.

PROJECT MANAGEMENT

MOB and BLS are jointly responsible for the planning of GPX on their respective network. MOB as owner of the rolling stock leads the project. The roles of MOB and BLS are defined by contract. The coaches are leased by BLS when running between Zweisimmen and Interlaken. Throughout history MOB has pulled the project forward (see history).

KEY DATES IN THE PROJECT

Late 19th century. At that time, railway projects were flourishing everywhere. The idea of linking the Riviera with the lakes of Thun and Brienz region existed before the creation of MOB. A first written record dates of 1873.

1901. Opening of the first MOB metric gauge section between Montreux and Les Avants adapted to the steep profile of the area. At the same time, the Interlaken – Zweisimmen line is gradually taking shape, but as standard gauge.

1916. It is possible to travel by train from Montreux to Lucerne with two changes (at Zweisimmen and Interlaken) known as the GoldenPass Line.

1928. In the period after the First World War, tourism picks up. The idea of building a third rail comes up once again. However the project never progresses beyond studies.

1986. Edgar Styger, Director of MOB, initiates the idea of a third rail once again.

2006. Combining standard and metric gauge in the station of Spiez is impossible without the construction of an underground track. The rising costs finally end the proposal for a third rail.

2008. Faced with the difficulty of adapting the tracks, MOB announces that the barrier between the standard and metric gauge will be crossed using revolutionary variable gauge bogies. The announcement stuns the railways industry.

2010. MOB having designed and developed a new variable gauge bogie (called EV09) presents it to the press in Montreux. The concept is good, but further development is required.

2018. At the initiative of Georges Oberson, Director of MOB, Alstom is entrusted with the development and construction of variable gauge bogies. The new bogie, which is more complex and heavier, is called the EV18.

2019. The initial tests on the gauge adapting ramp in Zweisimmen are successful. The new bogie is presented to the press in May.

2021. MOB begins the long approval process on the metric gauge, the standard gauge as well as over the gauge adapting ramp. The launch of the GoldenPass was planned for June but postponed due to the consequences of the pandemic.

2022. The first commercial journey on the GoldenPass Express will take place on 11th December.

PROJECT COSTS

The investment for the GoldenPass Express is worth CHF 89 million. It includes 23 coaches as well as 58 variable gauge bogies. The infrastructure costs are being financed through the Swiss Railways Infrastructure Fund.

FINANCING

To finance the CHF 89 million (see above) MOB took out a loan. The GPX transportation offer is entirely determined and funded by the cantons through which it travels (Bern, Vaud and Fribourg) as well as by the Swiss Confederation thus covering the operational costs. The costs of the Investments in infrastructure (gauge adapting ramp) are entirely financed entirely by the Swiss Confederation.

CATERING SERVICES

A catering service is a great asset on a tourist train service like the GoldenPass Express. A market survey confirmed the importance passengers give to an on-board catering service.

The following is planned:

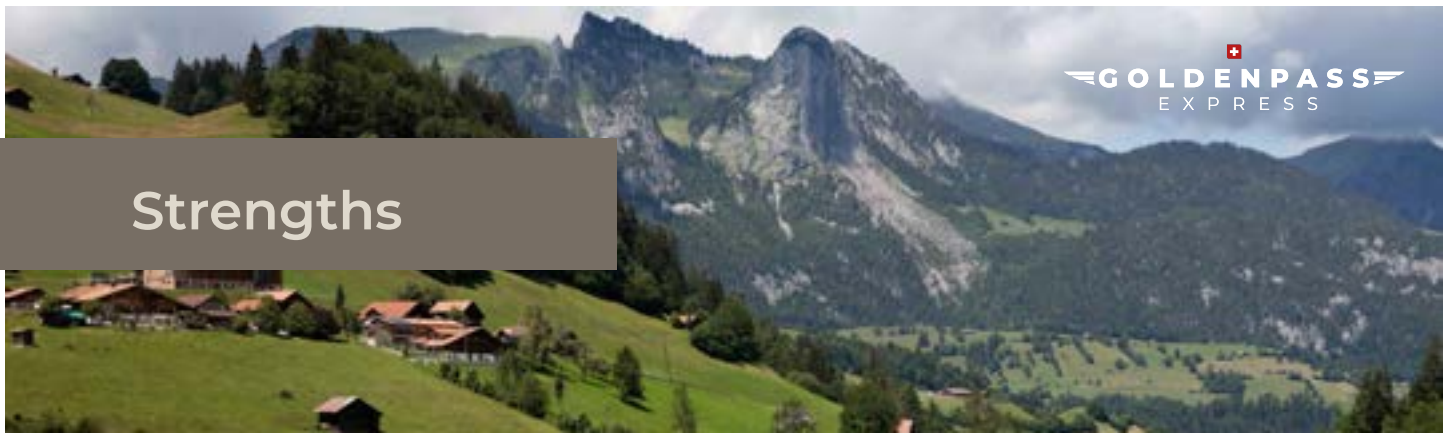
- In Prestige class: seat service for booked journey
- In 1st class: seat service for booked journey
- In 2nd class: bar service.

Catering orders will be put together in a dedicated area inside the train based on pre-cooked products. The use of local products will be favored. To be able use the catering offer in 1st class and Prestige class, reservations are required.

A call for tenders was launched in the spring of 2022.

TESTS AND APPROVALS

As with any train, the GoldenPass Express is required to pass a number of tests in order to be approved. The special feature of this train is the variable gauge technology. An appropriate approval process has therefore been created. The tests are multiple (static, dynamic) and carried out by MOB. The data is sent to the Swiss Federal Office of Transport to be approved. This test phase runs from summer 2020 until autumn 2022. A provisional licence to operate has been issued to allow the tests. Upon the completion of the approval process, which leads to an operating licence for passenger transport, the GPX coaches will be able to operate on the entire Swiss railway network. Note: the speed limit is 100 km/h.



Strengths

The GoldenPass Express is an exceptional train from several perspectives.

FOR TECHNOLOGY

To adapt to the change of the gauge width (+43%) and the height of the platforms (from 35 cm to 55 cm) is completely unprecedented. The change from one railway network to the other is also accompanied by a change in voltage, from 900 V direct current to 15 kV 16.7 Hz. This is a world's first!

FOR TOURISM

A direct train significantly increases the attractiveness of Montreux, Gstaad and Interlaken and brings Montreux closer to the Jungfrau and Lucerne. From palm trees to glaciers: the slogan becomes a reality. The GoldenPass Express is a link between the French and the German-speaking part of Switzerland, between cultures, between city and country life, between lake and mountain landscapes.

The GoldenPass Express connects several attractions along its route. A non-exhaustive list: Rochers-de-Naye with panoramic view on Lake Geneva (access from Montreux), Boat trip on Lake Geneva (CGN), Castle Chillon visit (access from Montreux), Maison Cailler chocolate tasting (access from Montbovon), Glacier 3000 with panoramic view on the Swiss Alps (access from Gstaad), Stockhorn for hiking (access from Erlenbach i. S.), Boat trip on Lake Thun (access from Thun), Jungfrau – Top of Europe (access from Interlaken).

FOR THE COMFORT OF THE TRAVELLER

The three-hour journey between Montreux and Interlaken is comfortable. All the coaches are panoramic, and a catering service will be made available to the passengers. In Prestige class, the seats can be heated and will always face in the direction of travel.

FOR COMMUTERS

The introduction of the GoldenPass Express increases the transport options for the commuters by around 15% and their leisure opportunities.

FOR THE RAILWAY NETWORK

This project removes the barrier between the metric and standard gauge. The gap between the mountain railways (metric gauge) and the long distance railways (standard gauge) will disappear and open up promising prospects.

FOR THE SWISS ECONOMY

On the GoldenPass Express, almost everything is swiss. The heart of the system, the variable gauge bogies, were designed by MOB and then developed by Alstom Switzerland and manufactured at the Alstom site in Villeneuve and will be serviced at RailTech, also in Villeneuve. The coaches were manufactured at the Stadler site in Bussnang. The 89 MCHF has largely been invested in the Swiss economy. The maintenance of the trains will be carried out by the Rolling Stock entity of MOB with facilities in Montreux, Chernex and Zweisimmen.

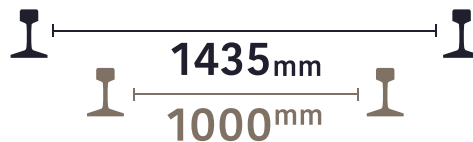




How It Works

THE VARIABLE GAUGE PRINCIPLE

The transition from the metric to standard gauge is achieved through the combination of the variable gauge bogies and the gauge adapting ramp. The main challenge is not only to change the width of the wheels, but also the height of the coach. Additionally, the difference of the electrical voltage of the network requires a change of locomotives.



THE STAGES

1. The train departs from Montreux and arrives at Zweisimmen station, the metric gauge part of the journey. Then the train passes over the gauge adapting ramp at a speed of 15 km/h and flaps are raised to allow the coach to position itself. With the weight of the coach relieved from the bogies, their wheel width can extend from 1000 mm to 1435 mm. At the same time, the body is raised from 350 mm to 550 mm to adapt to the platform height.
2. The change in gauge width and height is not the only challenge to be solved. The electrical voltage is different on the MOB and BLS railway network: 900 VDC on the metric gauge network and 15 kVAC (16.7 Hz) on the standard gauge network. Therefore, the locomotive needs to be changed, furthermore they are not equipped with variable gauge bogies. As a consequence, in Zweisimmen, the MOB locomotive (which pulled the train) hands over the train to the BLS locomotive (which will push the train).
3. The train can then resume its journey on the standard gauge track towards Interlaken East. The gauge width change takes eight minutes: only a few seconds crossing the ramp, most of the time is required for the change of locomotives and related checks. In Zweisimmen, the gauge adapting ramps are located on tracks 6 (to be installed in autumn 2022) and 7 (complete).

Frequently Asked Questions

WHY THE GOLDENPASS EXPRESS?

With the GoldenPass Express, a longstanding dream has come true to connect three major tourist centres without having to change trains: Montreux, Gstaad and Interlaken. The palm trees of Montreux are brought closer to the glaciers of the Jungfrauoch. Thanks to its variable gauge system the GoldenPass Express revives the prestigious GoldenPass Line (Montreux – Interlaken – Lucerne). Not having to change trains is a major advantage for group travels and the comfort of the passengers is increased in general. The GoldenPass Express will become an attraction in its own right. During the three hours of travel, the passenger will discover some of the most beautiful landscapes in Switzerland, while enjoying a high level of comfort and gastronomy. The GoldenPass Express is destined to become one of the legendary trains in Switzerland, such as the Glacier Express or the Bernina Express. The position of MOB and BLS in the category of premium panoramic train will be strengthened.

WHAT ARE THE GOALS IN TERMS OF AMOUNT OF PASSENGER?

The GoldenPass Express, which has been desired for more than a hundred years, will significantly increase the attractiveness of the Montreux – Interlaken trip and the regions crossed. A realistic objective for the amount of passengers cannot be fixed. The current instability in tourism due to the pandemic and the geopolitical situation makes any prediction too uncertain.

PRICES

In 2023, the price (full adult fare, individual fare) for a journey from Montreux to Interlaken will be CHF 73 (CHF 53 for the journey and CHF 20 for the reservation) in 2nd class, and CHF 113 (CHF 93 and CHF 20) in 1st class.

Reservations are strongly recommended for the 1st and 2nd classes and are compulsory for Prestige class (CHF 35).

As the GoldenPass Express is part of the swiss regional transportation offer, tickets from the Swiss assortment of tickets, such as general season tickets, ½ fare tickets and day passes are recognized and accepted.

The prices for the catering services will be defined later on.

OPERATING PRINCIPLES

The GPX will be operated based on the railway network principle. Accordingly, MOB will operate the trains on its network and BLS will do so between Zweisimmen and Interlaken. The staffing of the train will be carried out by MOB between Montreux and Zweisimmen and by BLS between Zweisimmen and Interlaken. The catering service will be subcontracted to a specialist.

WHY IS THERE AN ADDITIONAL COACH ON THE BLS NETWORK?

This is due to the change of locomotives in Zweisimmen due to two reasons:

1. The electrical voltage is not the same on the MOB and BLS network
2. The locomotives are not equipped with variable gauge bogies.

Additionally the coupling and buffers on the GoldenPass Express train are not the same as those on the BLS locomotives. The BLS locomotive equipped with an interface coach (Bsi) can automatically couple with the GoldenPass Express train. Therefore there is an additional coach on the Zweisimmen – Interlaken – Zweisimmen section.

WHEN WILL THE GOLDENPASS EXPRESS REACH LUCERNE?

The idea of the GoldenPass Line is to connect Montreux to Lucerne. As of 11th December 2022, it will be possible to travel between these cities with only one change (in Interlaken) instead of two (in Zweisimmen and Interlaken). To eliminate the change in Interlaken the GoldenPass Express should additionally be equipped to run on a cogwheel network. This would allow the same train to travel on three different networks: metric gauge (Montreux – Zweisimmen), standard gauge (Zweisimmen – Interlaken) and metric gauge cogwheel (Interlaken – Lucerne). For the time being it remains an idea. At present the focus is on the current project: the GoldenPass Express. Anyhow Interlaken (and the Jungfrau) as a major point of interest will remain a natural break point on the journey.

WHY IS THE PROJECT A WORLD'S FIRST?

Other companies have equipped their trains with variable gauge bogies, such as the Spanish Talgo. The system designed by MOB and developed by Alstom is the only one to extend as much (from 1 m to 1.435 m, + 43.5%) and to elevate the coach from 350 mm to 550 mm. No other variable gauge bogie is capable of that. The change from metric gauge to standard gauge is a world's first. The bogies on the GoldenPass Express change gauge width in a matter of seconds with the passengers on board. All in all, including the change of locomotive and required checks it only takes eight minutes.

HOW WILL THE GOLDENPASS EXPRESS REVIVE THE GOLDENPASS LINE?

The GoldenPass Line is the train trip from Montreux to Lucerne. Since 1916 the train trip has only been possible with two changes (in Zweisimmen and Interlaken). Thanks to the GoldenPass Express only one change will be necessary (in Interlaken). The attractiveness of the train trip will further increase compared to other modes of transport.

IN WHICH CATEGORY THE GOLDENPASS EXPRESS WILL BE?

The GoldenPass Express will be part of the Swiss Premium Trains of Switzerland in the category of the legendary trains in Switzerland, such as the Glacier Express or the Bernina Express.

WITH THE INTRODUCTION OF THE GOLDENPASS EXPRESS, WILL IT STILL BE POSSIBLE TO TAKE THE MOB BELLE EPOQUE AND PANORAMIC TRAINS?

Yes, nothing will change in this respect. The GoldenPass Belle Epoque and the GoldenPass Panoramic trains will continue to run on the Montreux – Zweisimmen line (without surcharge).

WILL IT BE POSSIBLE FOR THE MEDIA AND PARTNERS TO TAKE A PRE-VIEW JOURNEY ON GOLDENPASS EXPRESS BEFORE ITS LAUNCH DATE OF 11TH DECEMBER 2022?

Media enquiries on the GoldenPass Express are to be sent to : media@mob.ch The possibilities are limited.



Contact

Enquiries about the GoldenPass Express should be addressed to our press office.



MOB Press Office

media@mob.ch


GOLDENPASS
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