



Adaptation strategies of ropeway companies in Switzerland to climate change

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The consequences of climate change are being felt disproportionately in the Swiss mountains. Melting glaciers, rising zero degrees, increasing rainfall in winter and dry summers are the consequences. Increasingly, the question arises as to whether skiing is a thing of the past. The media like to portray the image of yesterday's skiers who just can't give up their hobby. This is symbolised by the white strip of slopes in the middle of the green mountain landscape. So much for public perception.

The facts show a different picture. Thanks to the altitude of its ski resorts, Switzerland has the best conditions to be able to continue practising winter sports in the future. The trend is constant, as skier days have remained constant over the last 10 years (20-25 million first-time skiers). Covid-19 has changed the image of skiing, and for the better. A study analysing the market in Germany, Switzerland and Austria has shown that the image of skiing in terms of health has improved in Switzerland in particular. Skiing is the number one sport among children and young people. In a survey conducted by the Federal Office of Sport in 2020, 59% of young people between the ages of 10 and 14 said that they ski. So there can be no question of the end of skiing.

If you look at where skiing is developing best, a clear picture emerges: The winners are the ski resorts at higher altitudes, above 1,800 metres above sea level. The lower-lying ski resorts will struggle to be able to offer their services regularly in the future.

The sharp rise in temperature jeopardises the natural snow guarantee for destinations/activities below 1600m above sea level. In future, more rain and less snow will fall in winter. The winter snow season will continue to shorten, while summers will become longer and drier. It is expected that the current zero degree limit of 1000 metres above sea level will rise to around 1600 metres above sea level in the next 60 years.

In 2008 and now again in spring 2024, the Swiss Cableways Association conducted a study with the University of St. Gallen to find out how companies perceive climate change, what specific consequences they are already struggling with today and what measures they will take to meet the challenges.

The study generally distinguishes between small companies with less than CHF 5 million in traffic revenue and large companies with over CHF 5 million in traffic revenue. The study shows that cable car companies are highly sensitised to the issue of climate change and the implementation of strategies is now making concrete progress. Snow reliability has continued to decline over the past 10 winters and averages 6.8 winters (out of a possible 10) for large companies and 6.2 winters for small companies.

Among other things, the study analysed the question of the specific effects on companies over the next 20 years. Unsurprisingly, the decrease in snow reliability and the shortening of the season were mentioned. On the other hand, less than half of the companies assume that demand for snow sports tourism will decrease.

How do companies arrive to this conviction? What adaptation strategies are they using to meet the challenges ahead?

We divide the adaptation strategies into two categories:

1. Customisation of the offer
2. Adjustments to reduce CO-2 emissions

1. Customisation of the offer

Three key adjustments can be seen here.

Firstly, safeguarding skiing as such: Guaranteed snow or snowmaking is a key factor in safeguarding skiing operations: 67% of large and 20% of small companies have and will continue to invest in snowmaking technology. The companies are also planning further measures, such as moving to higher altitudes or improving piste maintenance and landscape interventions to reduce the required snow depth. Not mentioned and not yet a major topic in Switzerland, however, is snow farming.

Second, in addition to safeguarding skiing, the diversification of winter offers also plays an important role. A third of the large companies are planning more fun sports such as snow kiting, tubing or winter golf. A fifth of the large companies also want to organise additional winter events (open airs, shows, parties). We can observe a high degree of innovation spirit in customizing the offer in the winter.

The study also examines which strategic measures for diversification are planned or have already been introduced in winter. The decisive factor here is the cooperation of offers with ski resorts at higher altitudes. 22% of small companies state that they have expanded their ski pass offer with partners at higher altitudes. An example of this is the Magic Pass, which is mainly successful in French-speaking Switzerland with over 170,000 season passes sold, providing access to 50 small, medium-sized ski resorts and some higher-altitude ski resorts. These resorts are recording higher revenues and an above-average increase in guests. In contrast, large companies at high altitudes increasingly relied on dynamic pricing, i.e. weather and snow-dependent price incentives and early booking discounts. Thanks to their positioning, they were able to push through a higher price per entry to the ski area on the market.

Third adaptation strategy is the summer expansion. Summer is booming. Accordingly, all companies are planning to expand their offering. The spectrum for summer expansion is even broader than in winter: Here too, adventure and fun sports such as paragliding, zipline and mountain carts are the most important measure (at >40%), followed by the expansion of playgrounds, themed hikes and the expansion of catering. Events (open-air) are also central to the summer offer. Not to be forgotten are the investments in additional catering facilities and the development of new markets.

2. Adjustments to reduce CO-2 emissions

The companies have already implemented various measures to reduce their own CO2 emissions. In future, they will increasingly focus on producing their own energy on site (photovoltaics, small hydropower plants) or purchasing renewable energies as well as efficiency measures for energy consumption. But they are also focussing on mobility: Focus on travelling by public transport where possible or investing in e-mobility.



The question of financing additional investments and expansions is of course central. It is clear that the large companies are focusing on two measures here: On the one hand, investing in year-round tourism by making the infrastructure profitable for winter operations, i.e. using the reservoir for swimming in summer or using snowmaking lines to generate electricity.

On the other hand, they are relying on the public sector. In the case that self-financing is not sufficient, which is the case for 46% of large and 71% of small companies, companies are in favour of the public sector contributing more to the costs. Or try to attract new investors. It is important, that all stakeholders are called upon to jointly define clear strategies for the future, find innovative financing models and implement the measures consistently.

Despite numerous challenges and costly investments, giving up railway operations altogether is not a viable option for any company.

Thanks to their altitude, Swiss mountain railways are well positioned to continue focussing on winter sports and winter tourism despite the warming. However, winter tourism will be concentrated at higher altitudes. The expansion of snowmaking and more efficient piste preparation will become even more important in the future. The major mountain railways in particular are innovative in their product design and are looking for new activities in the snow, successful events and sporting occasions. This is a testimony to the expansion of the diversification of offers.

Summer will certainly continue to boom and generate additional revenue. The investment field is much more open here and consistent strategic positioning will be crucial in the future.

Switzerland is and will remain a strong winter destination, and if it wants to stay that way, it must be prepared to invest.

Overall, we can therefore conclude that the Swiss mountain railways are well positioned, are taking the problems very seriously and are developing innovative measures on a very broad strategic basis.