

24H of Finale

ASSESSMENT OF THE TECHNICAL DIFFICULTY OF THE COURSE

Premise

There follows an analysis of the technical difficulty of the course used for the event known as '24H of Finale', with the aim of producing a clear and exhaustive document to riders regarding the nature and characteristics of the track.

This analysis is to give bikers a full understanding of all the aspects they must carefully consider when they have to make an objective evaluation of whether their bike skills and experience are sufficient for them to compete on the course.

Objective of the assessment:

The classification of the difficulty of a course can:

- help bikers make informed decisions;
- encourage bikers to race the course only if they possess suitable technical expertise;
- contribute to risk management and to minimising accidents;
- improve the experience of 'outdoor' for a large number of riders;
- help with course planning.

Assessment method

The method used for the technical assessment of the course is, in summary:

- The system focusses primarily on classifying the technical level of the course, but also on an estimate of the amount of physical skill needed, which during the progress of the race will influence the rider's subjective view of the technical difficulty of the track. In fact, when dealing with a course which is used for a '24 hour' (an event in which each participant can complete a differing number of circuits and thus a varying distance) it is inevitable that the 'objective' elements of the course overlap with the 'subjective' views of the racers. For example, let's consider two riders, one of whom rides only one lap and the other who does 10 laps in a row. Objectively, the technical aspects of the case remain the same for both, but the athletic effort for the two riders is subjectively very different, as the level of effort rises in relation to the increase in distance.

Moreover, if they were riding the same distance, each biker would experience different effects, obvious only to themselves, depending on their fitness level and training. We have therefore chosen to evaluate the technical aspects of the course and the athlete's commitment as two distinct elements. We aim to provide two sets of results which can be combined by each biker to focus on aspects which relate to them and their own experience.

- To arrive at a definitive score for each track, the course assessments are combined with personal judgement as there is no prescriptive method for arriving at a final score for every track.
- The course will be evaluated relative to other tracks in the area. This makes more sense than seeking to assess a single track on its own. This approach helps to classify the relative difficulty of the course and helps riders to have an idea of the best course for them by giving them a wider view of the degree of difficulty.
- In assessing the course, other features outside the criteria proposed by the objective method will be considered. In fact, a wide variety of characteristics can contribute incrementally to increasing the perceived difficulty of a track. A good example is the going - a very low section of rocky outcrop on the course might appear to be really hard to cross if in addition there is a 100m sheer drop just to the side of it...!

Assessment scale

As much as the evaluation of technical elements is as objective as possible by virtue of the working method set out above, it is important to use a way of comparing different elements to come up with a precise and definitive scale of difficulty.

Theoretically it is possible to use different weightings, but the most reliable is that designed and used by the International Mountain Bike Association (IMBA).

IMBA is one of the most important off-road cycling associations in the world, which has always been involved in the planning, maintenance and analysis of the network of trails dedicated to mountain biking. Their method of analysis is the fruit of years of experience and represents an international point of reference. IMBA has based its work on the international course classification used in ski resorts all round the world. Lots of organisations have used this system to develop networks of tracks for mountain biking. It is particularly appropriate to mountain biking but is equally applicable to other sorts of uses, such as for bikers and hikers. The final assessment of the course is formulated by assessing it in accordance with the classification criteria proposed and combining this evaluation with personal judgments and input provided by users. The IMBA scale evaluates technical difficulty, to balance the ability of the rider to tackle obstacles of

increasing size and difficulty with their fitness.

Technical difficulty

The criteria are as follows:

- Course width > average course width.
- Course surface type >relative stability of the top surface.
- The type of going and surface stability. Track gradient (maximum and average) > The maximum gradient measured in percentages on the steepest part of the course and longer than 20m. The average gradient measured along the whole length of the course.
- Natural and artificial obstacles present on the course > elements which add difficulty by impeding the rider's progress. The height of each obstacle will be measured from the track surface to the top of the obstacle. If the obstacle is irregular in shape the height will be measured at its easiest point. Artificial obstacles on the course (Technical Trail Features or TTFs) are objects placed on the track in order to raise the level of difficulty.

To sum up, the technical difficult of the course relates essentially to the characteristics of the terrain which the riders will face, whether riding uphill or down.

Where the course contains sections which are especially difficult and dangerous (for example rocky areas), the whole course will be given the weighting of these areas, independently of how many times they occur. On the other hand, a course which overall is challenging could include short sections which are technically difficult, but the difficult sections are not continuous (which would allow the rider to avoid the obstacle) and would also take into account how dangerous the section was. So bikers may be able to improve their technical skills without running too many risks.

| | LEVEL | CHARACTERISTICS |
|--|-----------|--|
| | Very easy | Soft surface, wide and without significant obstacles |
| | Easy | Soft surface, wide and slightly rough |
| | Medium | Soft surface, with bumpy sections and narrow places, medium slopes |

| | | |
|--|-------------|--|
| | Challenging | Soft surface with narrow sections and medium sized obstacles, including on some steep slopes |
| | Difficult | Soft surface with narrow sections and big obstacles, including on steep slopes |

Athletic difficulty:

This criterion relates primarily to the type of climbs (but also descents, above all in the the case of extreme technical difficulty), and secondly the differences in altitude and how many kilometres the race covers.

| | LEVEL | CHARACTERISTICS |
|--|-------------|---|
| | Very easy | Flat or slightly sloping with gradients < 400m |
| | Easy | Slightly sloping or medium gradient between about 300/800m |
| | Medium | Long medium gradients of around 400/1000m |
| | Challenging | Medium and steep gradients of around 500/1300m |
| | Difficult | Steep, long gradients (sections where bikes must be carried). Gradients around > 900m |

The following values apply to the gradients:

- Easy gradient, up to: 7%
- Medium gradient, from 7 to 12%
- Steep gradient, more than 12%

TECHNICAL ASSESSMENT OF THE COURSE

The 24H of Finale course is around 11km long and rises by around 375 m. Certain short sections of the climb may have a gradient of around 10%. Most of the course is single track and there are sections on which there is no space for overtaking other riders, where athletes may not be able to ride to their full capacity. The surface is natural and slightly loose, with

rocky sections which are assessed as being of medium difficulty. There are also contouring sections with mixed surfaces (sand, stony) which can be hazardous for inexperienced riders.

There are no dangerous natural obstacles and the course doesn't go close to any cliffs or escarpments which could cause vertigo in track users. Taking into account the above characteristics and having assessed them according to the criteria set out here, the 24H of Finale is to be considered **MEDIUM DIFFICULTY**

COMMENTS ON THE ASSESSMENT SYSTEM

No system of assessment can be totally objective or valid in every situation and it must be approached with a degree of common sense. Every course therefore must be scrutinised carefully by a user, with a degree of subjectivity.

By virtue of subjective factors introduced into the assessment by course users, it must be taken into account that the course assessment would not be completely objective for every type of rider. Therefore it is useful to combine data (such as the course gradients, curvature of bends, conditions of the track surface etc) with subjective users' views in order to get a more rounded assessment. For example, the track may have a range of surfaces, of which most are quite easy, but some sections are more difficult. How should the course be assessed? By using personal experience, considering each element of the course and choosing an assessment which best sums up the 'style' of the course.

it is therefore important that every course user, after reading out the objective information about the event, takes a close look at the track and evaluates the course, along with all the risks inherent in mountain biking.