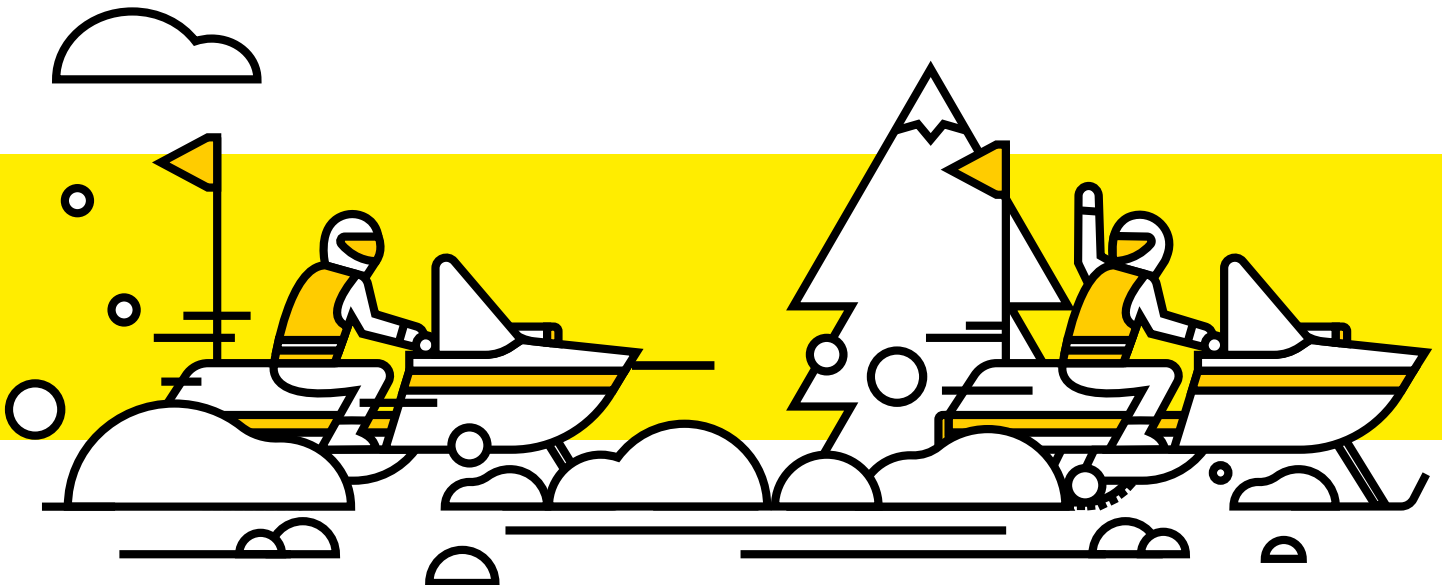


Accident investigators'
recommendations for snowmobiling entrepreneurs

**Here's how to reduce the risks of snowmobiling
through appropriate preparations**



The Finnish Crash Data Institute

In snowmobiling, first-timers have a lot accidents leading to injuries. The Finnish Crash Data Institute (OTI), which coordinates the work of road accident investigation teams, has prepared practical instructions for safari companies in cooperation with the Finnish Safety and Chemicals Agency (Tukes) to improve the safety of snowmobiling.

1/3 Prepare for the season with safety equipment and up-to-date training

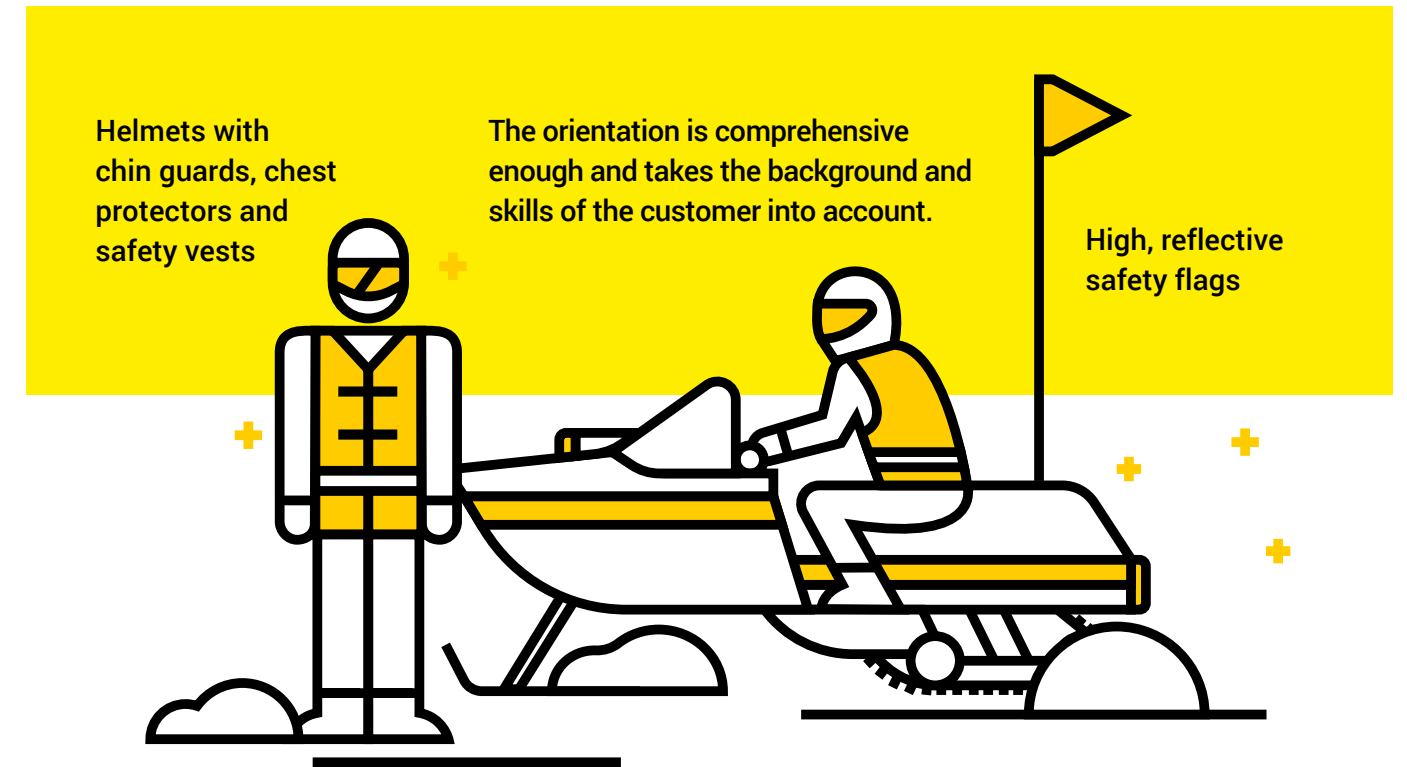
When acquiring new safety equipment, get helmets with chin guards and chest protectors that offer protection in the case of a crash. Add anti-fog goggles to helmets with chin guards.

When acquiring snowmobiles, keep in mind that narrow snowmobiles topple over more easily and the centre of gravity of a passenger sitting high increases the risk of toppling.

Ensure the high visibility of safari snowmobiles and customers. For instance, high, reflective safety flags can be installed on the snowmobiles to make them more visible at road crossings. It would be advisable to issue safety

vests to customers for the ride. This would make them more visible to others moving on roads and off-road.

If necessary, renew the content of snowmobiling training. The framework of snowmobiling training currently in use was drafted in the 1980s and 1990s, at which time the main target group was Finnish corporate customers. Today, the services are used by a large number of new target groups, such as older riders and foreign tourists who often have no experience of snowy conditions. So make sure that the orientation is comprehensive enough and takes the background and skills of the customer group into account.



Consider the pricing basis for the excess of snowmobile renting. Inexperienced riders should be advised to select a snowmobile with less power. The price can be determined by

the power settings, so that the excess is lower with a less powerful snowmobile. This way, you can reduce the accident risk of inexperienced riders.

2/3

Plan the route and speed according to the customer group

Favour unobstructed routes with as few trees and rocks along the route or in its immediate vicinity as possible. This decreases severe crashes. A snowmobile route passing through a forest is a dangerous traffic environment.

The currently recommended speed (40 km/h) on guided snowmobile safaris is often too high. There is inevitable speeding up and slowing down when riding in a line. Accidents typically happen when those lagging behind try to catch up with the others. Adjust the speed to the slowest ones in the line.

Be prepared to change the length of the safari flexibly, if the situation so requires. **For some customers, a three hour safari is way too long due to the physical nature of the sport.** Plan routes of different lengths for different customer groups. **Do not take an inexperienced customer to a riding environment that is too demanding.**



40 km/h is often too fast.



3/3 Include information on the risks of snowmobiling in the training for guides.

In addition to a good customer experience, the guide also plays an important role in preventing snowmobiling accidents. Ensure that the following items are also discussed during guide training:

Acceleration.

As a rule, a snowmobile will accelerate faster than the customer expects.

Unfamiliar traffic environment.

A snowy forest, ice, darkness and cold are quite unfamiliar for many customers. Some of the customers may never have been in a forest.

Thickness of ice.

When moving on ice, the ice thickness must be at least 20 cm of blue ice. Cracks must be avoided at a distance of at least 100 metres.

Transporting others.

A passenger on the snowmobile makes riding harder. If riding training takes place alone, there should be a section of riding with a passenger at the end of the training.

Changing riding conditions.

An inexperienced rider is slower to adapt to a change in conditions than one would expect. For instance, moving from ice into a forest or the start of snowfall during the ride take time to adapt to.

Switching the rider.

If the rider is switched during a stop, the snowmobiling training should be repeated if a first-timer is taking over the snowmobile.

Riding in lines.

When riding in a line, the speed must be adapted to the slowest customer. Typically, a crash into a tree occurs when a slow rider notices that the rest of the group are already far ahead and tries to catch up with them by accelerating.

Parking.

During stops, the guide must ensure the parking of the snowmobiles so that no collisions occur when continuing the ride.

Exceptional situations.

The guidance should include instructions on how to act in an exceptional situation, such as how to handle the snowmobile if it leaves the hard trail and ends up in soft snow, or hits a lump of snow.

Risks.

Customers should be reminded that in addition to specific snowmobiling-related risks, the same basic risks (such as errors of judgement and observation) as in other motor vehicle traffic are also present. A snowmobile is not a toy.

Ensure the customer's safety before setting off

Recommend riding without a passenger to an inexperienced or otherwise uncertain rider. If they have to ride with a passenger, pay special attention to their orientation and monitoring them when moving along the route.

Ensure that when two people ride on a snowmobile, they are close to the same size, if possible. A large difference in size or weight has a great impact on the manoeuvrability of the snowmobile.

Take the physical characteristics of an inexperienced rider into account. Recommend a sleigh ride pulled by the guide for people with physical disabilities.

If the customer has doubts about riding after the training or seems to be highly anxious about it, give them the chance to not ride. When buying the service, the customer does not always understand what the service is really like. An unfamiliar environment and a new vehicle with its controls may be so overwhelming despite the training that managing it all may prove difficult for some customers. Offer the option to participate in the safari, for instance, as a passenger in a sleigh pulled by the guide as an alternative.



The road accident investigation team of Lapland has investigated snowmobiling accidents in the area covered by the Lapland Central Hospital for years. During the season 2017–2018, 338 patients injured in snowmobiling accidents were treated at the Lapland Central Hospital. This was more than the number of people injured in road traffic during the same time period. It has been estimated that approximately half of the total number were injured during snowmobile safaris.

The Finnish Crash Data Institute (OTI) works to prevent road accidents in Finland. OTI coordinates the operations of road accident investigation teams and administers the data collected in the investigations, in addition to its other traffic accident statistics. The amount and quality of the statistical data are unique by international standards. OTI provides important information that can be used to improve traffic safety at both legislative and practical levels. The institute operates as an independent unit within the Finnish Motor Insurers' Centre.
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