Guidelines

Orienteering for Youth Development

Orienteering Guidelines for Participants, Coaches, Instructors and Youth Workers

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4C Cooperate Communicate Create Change | Project Coordinator | Greece
Smart Nest | Partner | Latvia
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Contact Person: Danai Papadaki
Email: project.4corg@gmail.com

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1 Introduction

1.1 Purpose of the Guidelines

These guidelines are developed in the frame of the *Beyond Maps* project, with the wider goal to promote orienteering as a tool for youth development in Greece, Austria, and Latvia. The main purpose is to provide practical and also research-based advice on how to organise orienteering activities, so that they help young people to improve physical health, strengthen mental resilience, and also support inclusion in the community. The guidelines also reflect the project's objectives, which are to raise awareness and better understanding about orienteering in partner countries through research, trainings, and outreach activities. At the same time, it is important that the project results do not stay only inside the project, but also can be used later on; therefore, this document is created as an adaptable and easy-to-use resource. In such a way, the guidelines can be used as a toolkit for youth workers, teachers, and coaches who want to bring inclusive orienteering activities into their daily work with young people.

1.2 Target Audiences

These guidelines are made to help many different people who are involved in promoting orienteering as a tool for youth development and also for inclusion. The idea is that not only one type of user will benefit, but several groups.

- **Youth workers** – people who usually work in non-formal education and support the growth and well-being of young people.
- **Coaches** – trainers and teachers who want to use orienteering inside their sports or physical activity programmes.
- **Beginners** – organisations or individuals who are completely new to orienteering and need clear, simple, step-by-step advice on how to start.
- **Underrepresented groups** – this can be young people from low-income families, minority groups, refugees, as well as girls and women, who sometimes meet barriers when trying to join sports.

All of these groups are important because the main goal of the project is to make orienteering more inclusive and accessible, and also to bring a positive impact in very different local contexts.

1.3 Project Overview

Beyond Maps: Orienteering for Youth Development is a joint European effort within the Erasmus+ Sport Small-Scale Partnership programme. The project connects three organisations – from Greece, Austria, and Latvia – with the aim of promoting orienteering as a sport that is easy to access, does not need high costs, and still gives strong physical, mental, and also social benefits.

The idea of the project comes from real problems seen in all partner countries: young people sitting too much and not moving, feeling disconnected, and not having enough inclusive opportunities in sport. To answer this, Beyond Maps organises research, international training, local-level competitions, and workshops in communities. Through these actions, youth and professionals who work with youth receive knowledge and practical tools to bring orienteering back into both city and countryside environments.

The Guidelines, together with the **Beyond Maps Handbook**, were created as the main results of the project. They are important to keep the impact lasting and to make sure that orienteering continues to be used also after the official project period is finished.

2 Orienteering Basics

2.1 What is Orienteering?

Orienteering is a sport where people get a map and a compass and try to find several checkpoints. The task is to finish the course quickly, but also correctly, without missing any points. It can be done alone, but also together in small teams. The place is not always the same – sometimes in a forest, sometimes in a city park, on school territory, or even inside a building.

What makes it interesting is the mix. You need physical strength, but you also need to think and make decisions very quickly. Because of this, the sport is suitable for young and older people, beginners, and also experienced ones.

Some of the official definitions of orienteering:

- Orienteering is a sport where racing and navigation come together. You don't only run – you also have to find your way. It is open for everyone, no matter the age or level. The task is simple to explain: move from one checkpoint to another, using a special orienteering map. The controls are marked there, but how you get between them is your choice (International Orienteering Federation (IOF))[1]
- Orienteering is a sport where people use a special map and a compass to find their way. The maps are made in different scales – usually something between 1:4.000 and 1:15.000. With these tools, participants try to complete different kinds of courses, each with its own challenge. (Latvian Orienteering Federation)[2]
- Orienteering is a sport where you move through a terrain using only a map and a compass. The task is to find several checkpoints. How you get from one point to the next is your own choice. Everyone makes their own route, and that is what makes it interesting.[3]
- Orienteering is a race, but not only about speed. You must also find your way around a course with the help of a map. Some people walk, others jog, and many will run. The pace is your own choice, and the route you take is also free to decide [4]

Orienteering brings many kinds of benefits to people who join. On the physical side, it helps to build fitness, stamina, and good coordination, because you are always moving and often in natural places. For the mind, it is also strong – you need to focus, read the map, decide fast, and solve problems as you go. Socially, it gives a lot too. In clubs or team events, people learn to cooperate, communicate, and they feel part of a group.

Another important thing is confidence. The sport reduces stress and gives positive energy, because it mixes exercise with being outdoors. And since orienteering is flexible and inclusive, it fits many different people – young and old, beginners and experienced, from all kinds of backgrounds.

- I**nternational Orienteering Federation**: Orienteering builds not only the body but also the mind. You need to read maps, make decisions, and at the same

[1] https://orienteering.sport
[2] https://lof.lv/kas-ir-orientesanas
[3] https://orienteeringusa.org/new-to-orienteering
[4] https://www.maprunner.co.uk

time move fast. It is a sport where your brain is working just as much as your legs.

- **Latvian Orienteering Federation**: Orienteering is a good way to stay fit and to practice navigation. It also trains logical thinking, because while you move, you must keep your focus, decide quickly, and maintain endurance.
- **British Orienteering Federation**: Orienteering can be done alone or with others. It gives physical activity but also a mental challenge. People improve their map reading, decision-making, and also their sense of space and direction.

2.2 Types of Orienteering

The most popular form of orienteering is **foot orienteering**. People run or walk with a map and a compass, moving from one checkpoint to another. A faster version is **sprint orienteering**, usually in urban areas, with shorter distances and a quicker pace.

There are also other types of orienteering. **Mountain bike orienteering** is done on trails with a bike. **Ski orienteering** takes place on cross-country skis in snowy landscapes. **Trail orienteering** is made to be fully inclusive. Here, the focus is on very precise map reading, and not speed, which is beneficial for people with limited mobility.

In some places, you also find **indoor orienteering** or **urban orienteering**. These are adapted for schools, events, or city spaces, so that more people can try the sport in their own environment.

- **Foot Orienteering (FootO)**: The classic form, on foot in forest or urban terrain.
- **Mountain Bike Orienteering (MTBO)**: On bicycles, using trails and paths.
- **Ski Orienteering (SkiO)**: On cross-country skis, in snow-covered areas.
- **Trail Orienteering (TrailO)**: Emphasises precise navigation and is accessible for participants with physical disabilities.

2.2.1 Foot orienteering

Foot Orienteering
Foot orienteering is the oldest and still the most common type of the sport. Participants move through unknown terrain with the help of a special map and a

compass, visiting a number of control points in the right order. What makes it special is the mix: physical effort, route planning, and quick decision-making in an environment that always changes. You can walk, jog, or run – the focus is not only speed but also accuracy. Over time, many smaller formats have developed within foot orienteering, so that it fits different places, ages, and levels of experience.

Sprint Orienteering

Sprint orienteering is like the "fast version" of foot orienteering. Courses are short, normally 2–4 km, and usually held in parks, campuses, housing estates, or city centres. The pace is high, and decisions must be made very quickly. Here, the challenge is not the steep hills or deep forests, but the tricky route choices and sharp turns in a busy map. Sprint orienteering is most commonly used in schools and youth programmes, as it is safe, short, and easy to organise.

Middle Distance Orienteering

Middle distance focuses less on pure speed and more on technical navigation. The courses are between 3–6 km, often set in dense forest, rough terrain, or hilly areas. Runners must change rhythm all the time because the ground is uneven and the map details are fine. This format is popular among experienced orienteers who like the mental side of the sport. Every mistake costs time, so precision is very important.

Long Distance Orienteering

Long distance – also called classic – is about endurance and route choice. For adults, the courses are 8–15 km, usually in forests or mountains. Here, participants must plan long legs, choosing between fast but longer routes, steep climbs, or easier navigation lines. This format is the most demanding physically. Success often comes from balancing speed with clever planning.

Rogaining

Rogaining can be compared to an adventure race, which usually consists of teams of 2–5 people. The time limit is 6, 12, or 24 hours. Instead of one fixed course, the map shows many controls, each with its own points depending on difficulty and distance. The team plans its own route to collect as many points as possible. Controls can be taken in any order. Strategy is as important as strength: planning, pacing, food, and rest are part of the challenge. In long events, teams often cover 50–100 km. And because everyone must stay together, there is a common saying: *the team is only as fast as its slowest member.* Rogaining is often organised outside of the official orienteering federations, but it follows the same spirit.

Urban & Photo Orienteering

Photo orienteering is often used in cities, schools, or public events. Instead of punching controls, participants must match photos to locations, or take a picture,

answer a question, or do a small task. This type is great for newcomers and families. It is easy to organise because no forest is needed, and it can also have an educational purpose, for example, discovering a city district, a cultural site, or even learning about sustainability.

Indoor Orienteering
Indoor orienteering takes place inside buildings such as schools, sports halls, or public spaces. Maps are specially drawn and can include several floors, stairs, and long corridors. Organisers sometimes make it harder by drawing labyrinths in gyms or turning some stairways and corridors into “one way only.” Distances are short, but intensity is high, because map reading must be quick and without mistakes.

2.2.2 MTBO – Mountain Bike Orienteering

Mountain bike orienteering is an endurance sport attracting both orienteering and mountain bike enthusiasts. The most important orienteering skills needed are **route choice and map memory**.
Extremely good bike handling and ability to cope with steep slopes both up and down is an absolute must for a top-level athlete. As an environmental safeguard, competitors may not normally leave paths and tracks, though it can exceptionally be permitted in some countries.
Mountain bike orienteering is one of the newer forms of the orienteering disciplines administered by the International Orienteering Federation. It started in the late 1980s at the club level in countries where mountain biking was a popular outdoor sport.

Figure 1 Mountainbikers in the forest. Source: storyblocks.com

2.2.3 SkiO – Ski Orienteering

Ski Orienteering is an endurance winter sport that combines navigation and cross-country skiing across rough terrain, utilising prepared cross-country ski tracks. A ski orienteer combines high physical endurance and strength, excellent technical skiing skills, and the ability to choose the best routes.

Ski orienteering events are designed to test both athletes' physical strength and navigation skills. Ski orienteers use a map to navigate in a dense network of ski trails and to visit control points in the right order. Route choices are made on the basis of the quality of the ski tracks, gradient, and distance, all of which can be read from the map.

Ski orienteering is time-measured and objective – the fastest time wins. An electronic card verifies that the athlete has visited all control points in the right order.

Figure 2 Skier in the forest. Source: storyblocks.com

Ski orienteering is mentally and physically challenging. The sport demands and develops mathematical and spatial ability, short-term memory, and other mental capabilities in addition to the physical capabilities of a cross-country skier. In comparison with cross-country skiing, ski orienteers are faster on technically challenging, narrow, soft tracks. The athletes need to read a map and make hundreds of route choices on a course while skiing at full speed.

Ski orienteering uses no fixed structures; the natural environment is the arena. Ski orienteering events can be organised from an existing ski stadium utilising the permanent or specially designed network of ski tracks for biathlon and cross-country skiing.[5]

2.2.4 TrailO – Trail Orienteering

Trail Orienteering is a special type of orienteering that focuses on very precise map reading, in both natural and city environments. It was made to give an equal chance for everyone, also for people with limited mobility. In this format, moving fast does not bring any advantage. Results are based only on accuracy. Participants can use wheelchairs, walking aids, or even personal assistants if needed. In this way, the sport stays open and accessible.

[5] Ski Orienteering, International Orienteering Federation. https://orienteering.sport/skio/

The main challenge is to pick the correct control marker using the map and descriptions. This is usually done from a fixed place, along a road or path, so there is no need to leave accessible ground. No punching or physical skills are required, which means even people with strong movement limitations can compete equally.

Trail Orienteering is divided into two classes:

- **O-class** – open for all, no matter the physical condition.
- **P-class** – only for competitors with permanent mobility disability, where foot orienteering would not be fair.

There are also three main competition formats:

- **PreO (Precision Orienteering)**: Participants follow a route, identify controls correctly, and stay on paths with a time limit.
- **TempO**: A quick version, where competitors sit still and solve timed map-reading tasks. It is about the speed of thinking.
- **Relay**: Done in teams, combining both accuracy and a bit of speed.

In recent years, a virtual version also appeared – **E-TrailO**. Here, the tasks are done online, from your own computer.

Trail Orienteering was officially accepted by the International Orienteering Federation in 1992. The first World Cup happened in 1999. From 2004, it changed into the World Trail Orienteering Championships (WTOC), organised every year until 2019. Starting in 2023, these championships will be held every two years.

2.3 Key Terminology

Orientation sport maps are detailed, usually with a **scale** of 1:10.000 (1 cm = 100 m) or 1:15.000 (1 cm = 150 m). In addition to roads, trails, and paths, densely populated areas and open spaces, they also include detailed relief features and various objects (trees, rocks, large stones, anthills, etc.).

Orientation sport maps usually have six different colors in them:

	The white colour contrasts with the background, a forest that is easily visible and does not obscure the view.

	Black colour is used to depict man-made objects (buildings, paths, fences, hedges, trees, bushes) and natural objects that cannot be moved (rocks, stone piles, large stones).
	The brown colour on the map shows the relief lines - horizontal lines representing hills, peaks, slopes, and shapes on them, depressions, and pits.
	Blue colour on the map shows everything related to water – rivers, lakes, swamps, and ditches.
	Yellow colour marks areas that are not covered with forest - clearings, dunes, and overgrown clearings.
	Green also characterises forests, but with impeded running. The more intense the green colour, the lower the visibility and running speed.
	Purple colour (or red) represents the distances to be covered by participants - start, CP, finish, detailed CP descriptions (legends). Prohibited areas are also marked in red or purple.

Table 1: Description of colours used in orienteering sport maps. Source: Latvian Orienteering Federation: https://lof.lv/kas-ir-orientesanas

2.3.1 Compass

Orienteering maps are always drawn with North at the top. Most of them also have North–South grid lines. To set the map the right way, use your compass. Let the needle show North, then turn the map until its top is in the same direction as the needle.

When you move, keep adjusting the map so it fits the way you are facing. If you get confused or lose direction, no problem – just repeat the same step with the compass, and the map will be correct again.

2.3.2 Landforms

The shape of the land is shown with contour lines, and extra symbols are used for small details like smaller hills, dips, or pits. Black symbols are added to show rocks and cliffs. It is important to include small features, but they should not hide the main landforms such as hills, valleys, and large slopes. Too many extra contour lines can make the map confusing and give a false idea of the height differences. There is usually a height scale, e.g., a line is being drawn for every 2.5 of elevation increase. Then the closer the lines to each other, the steeper the climb.

Figure 3Landforms in foot orienteering map: Source:https://orienteering-sport.com/foot-o-map-symbols/landforms/

Every fifth contour line is drawn thicker to make it easier to quickly see the height differences and the overall shape of the terrain.

Figure 4 Contour line in landform. Source: https://orienteering-sport.com/foot-o-map-symbols/landforms/

2.3.3 Course planning symbols

Symbol	Explanation
	Start point of the orienteering race
	Location of the control point

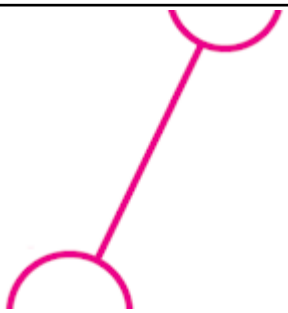
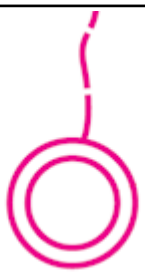
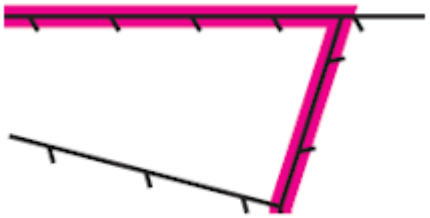
	Number of the control point
	When controls have to be visited in a predefined order, the sequence is shown using straight lines from each control to the next one. In some events, participants have to draw these lines themselves.
	The end of the orienteering race
	A boundary that is not permitted to cross.

Table 2 Course planning symbols, source: https://orienteering-sport.com/foot-o-map-symbols/course-planning/

2.3.4 Control Descriptions

Control descriptions provide details about the type of feature and the exact location of each control point in the terrain. They also show where the control flag is placed in relation to the feature and include a code, which allows the orienteer to confirm that they have found the correct control. The symbols used in control descriptions should not be confused with map symbols, even though many of them look similar and correspond to features shown on the map. Control descriptions must always appear with the course on a Foot Orienteering map, and at most official events, an additional control description sheet is given to competitors. For convenience, athletes usually

carry this sheet in a special holder worn on the forearm. In Latvia, these Control descriptions are unofficially called “Course Legend”.

Learning and understanding Control Description, their distribution in the card, and transferring that to the environment is probably the hardest part in the foot orienteering. However, many amateur orienteers participate without this knowledge, which is slightly harder to find the control when arriving, however, not impossible.

The control descriptions are listed in the same order that the controls should be visited during the course. They may also include extra details, such as the length or type of taped routes along the way. To make them easier to read, a thicker horizontal line is placed after every four controls, and also before and after any line that contains special information.

Control descriptions are presented in columns:

A – Control number

B - Control code

C – Which of any similar feature: These symbols are only used when it is necessary to clarify which of the identical elements the control point is placed on, i.e. the elements are so close to each other that the correct location is not evident.

This symbol is not necessary if, for example, a second identical element is close to the edge of the control point circle.

D – Control Feature (Landforms, Rock and boulders; water and marsh, Vegetation, Man-made features or special items)

E – Appearance: These symbols can be used when required to add clarity to the map in order to allow the competitor to better visualise the control site.

F – Dimensions / Combinations / Bend: The dimension(s) of the feature(s) must be given when they add clarity to the map to allow the competitor to better visualise the control site; e.g., from a visibility point of view, it is important to know if a boulder is 1m high or 3m high.

G – Location of the Control Flag: No symbol is required to describe the location of the control flag in relation to the feature if the control flag is positioned at, or as near as possible to, the centre of the feature (or the centre of the foot in the case of the cliff).

H – Other information: Other information that may be important for the orienteer; e.g., refreshment point, aid station

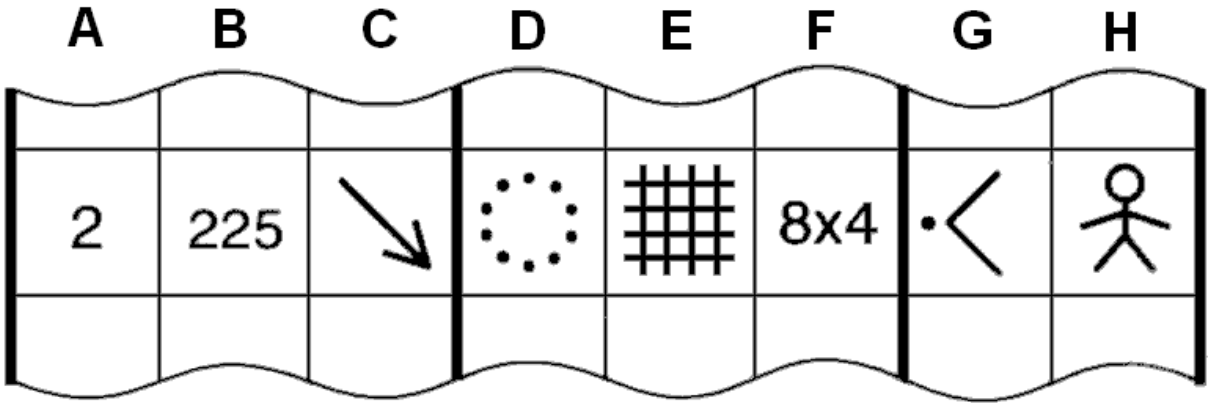


Figure 5 Example of information given in each of the columns of the control card. Source: https://orienteering-sport.com/control-descriptions/

3 Organising Orienteering events

Before taking the role of organiser, it is important that every event leader first gets solid experience as a participant. Orienteering is not only about putting checkpoints in the forest. It is a complex sport that mixes endurance, careful map reading, planning, and fair competition rules. To understand what people expect, you need to go through the process yourself – reading terrain, seeing how controls are placed, how timing is set, and how the whole event feels from start to finish. Without this background, it is very hard to organise something safe, enjoyable, and motivating.

Classic foot orienteering – the most traditional form – is also the most difficult to organise. Making a fair course in natural terrain asks for deep knowledge: mapping rules, contour lines, route choices, safety planning, and control placement. It also takes a lot of time. Maps must be prepared, controls must be set out and checked, timing needs to be arranged, and results managed. For a beginner, this can feel overwhelming, and the risk for mistakes is high.

That is why newcomers are advised to start with simpler formats. Photo orienteering or urban quests are excellent entry points. They are easier to prepare, since they need less technical mapping and fewer details to manage. For example, a photo orienteering event can be set up in a city area, using existing maps and pictures of landmarks. A quest can lead participants through a storyline with tasks or questions.

Both formats keep the joy of discovery and navigation, but without the heavy work of drawing precise maps or handling forest safety issues.

Starting with smaller and easier activities gives new organisers confidence. They learn the basic skills step by step – how to prepare clear instructions, how to welcome people, how to manage start and finish, how to keep fair play, and also how to ask for feedback. With more practice and personal experience, they can slowly move to bigger challenges. From photo orienteering or simple quests, to sprint races in the city, and later to full forest competitions.

This gradual path keeps quality high for participants and lowers the stress for the organiser. Knowledge grows naturally, not all at once. In the end, to become a good organiser, you first need to be an active participant, and then build experience through these smaller formats before taking the big step to classic events.

3.1 Event Planning

Photo orienteering may look simple, but it still needs good preparation. Without planning, even small events can go wrong. The organiser should think about three things first: safety, clear instructions, and that people enjoy the activity. A well-prepared event feels smooth and welcoming, both for newcomers and for those who already know the sport.

The first step is always to pick the right place. Photo orienteering works best in urban or semi-urban areas, where there are many details to see – landmarks, architecture, or cultural spots. A district of a big city, an old neighbourhood, or a popular park are all good choices. The location must combine safety, accessibility, and visual interest. A smaller area is better, since it keeps walking distances short, but at the same time, it should have enough details to make checkpoints challenging and enjoyable.

Step two is to check what rules apply. Local regulations can be different everywhere. Some towns are strict, some are more relaxed. In many places, permission must be obtained before holding gatherings in public areas. In Latvia, for example, when the group is more than 50 people, the municipality or even the police usually must give approval. (Riga City Council, n.d.[6]). Organisers also need to think about traffic and how the event may affect the local people. Routes should not cross busy roads or go into restricted zones. Safety always comes first.

Property rights are another important point. Never use private land without clear permission. Even in public spaces, it is good to check if some limits apply, especially with bigger groups. Working together with local authorities, museums, or cultural centres can also help. It adds value to the game and gives the event more legitimacy. (International Orienteering Federation, n.d.[7]).

After permissions are sorted, the next step is planning the course and logistics. This means picking photo checkpoints, preparing maps that are easy to read, and choosing the format – for example, team play or individual, competition, or just for fun. Before the start, organisers should always give a short briefing. Rules, safety, and how to record answers or photos must be explained clearly. At the end, it is good to have a short feedback round. People can share what they liked or what was challenging, and organisers can use this to improve the next event.

This reflection part is important. In non-formal learning, it is not only about joining the activity but also about taking skills and insights that can be used later in other situations. (European Commission, 2017[8]).

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[6] Riga City Council. (n.d.). *Permit for public events in Riga*. Source: https://www.riga.lv/en/permits-public-events

[7] International Orienteering Federation. (n.d.). *Guidelines for organisers*. Source: https://orienteering.sport/iof/organising

[8] European Commission. (2017). *Youth work and non-formal learning in Europe's education landscape*. Publications Office of the European Union. Retrieved from: https: //op.europa.eu/en/publication-detail/-/publication/86a959a6-0fcb-11e7-8a35-01aa75ed71a1

3.2 Course design principles

3.2.1 Selecting photo checkpoints

When picking photo checkpoints, the first rule is simple: the object must be permanent. Something that will not change before or during the event. Avoid cars, flower pots, small decorations, or seasonal displays. They may disappear, and then the checkpoint is gone. Better choices are details on buildings, sculptures, fountains, bridges, benches, or other fixed elements. Permanent objects provide participants with equal chances and reduce confusion. Additionally, the location should allow people to stop safely without causing obstruction or standing in traffic.

Another point is uniqueness. A common mistake is choosing an object that appears multiple times, such as identical benches, lamp posts, or park decorations, which can make it unclear to participants which one is correct. To prevent this, always look around carefully. Make sure the chosen feature cannot be mixed up with another. If there is doubt, select a different object, or focus on one special part – for example, not just any lamp post, but the lamp post with a sign on it. Clear and unique checkpoints make the game fairer and more fun for everyone.

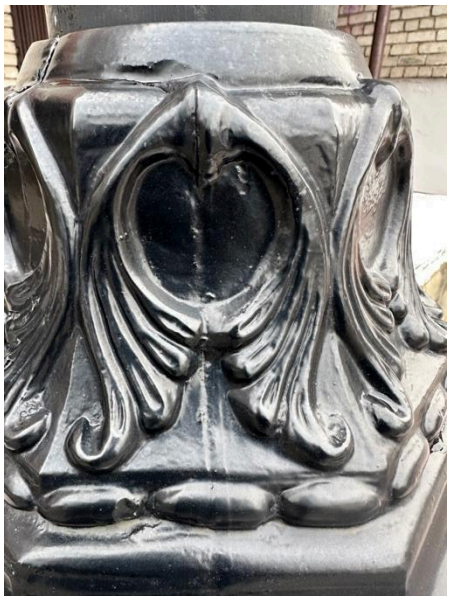


Figure 6 An example of a "bad" object for a photo orienteering.

This is a lamp post in the park. Looks beautiful, but the problem is that there are tens of such lamp posts in the park, and the event has several other checkpoints in the park, and thus, at those other points, the correct answer can be misunderstood with these posts. Source: Archive of the author

The size and how easy an object is to see also matter. Big and clear features are better for beginners and keep the game moving smoothly. Smaller items, or small details of bigger objects, can add challenge – but they should be used carefully. This

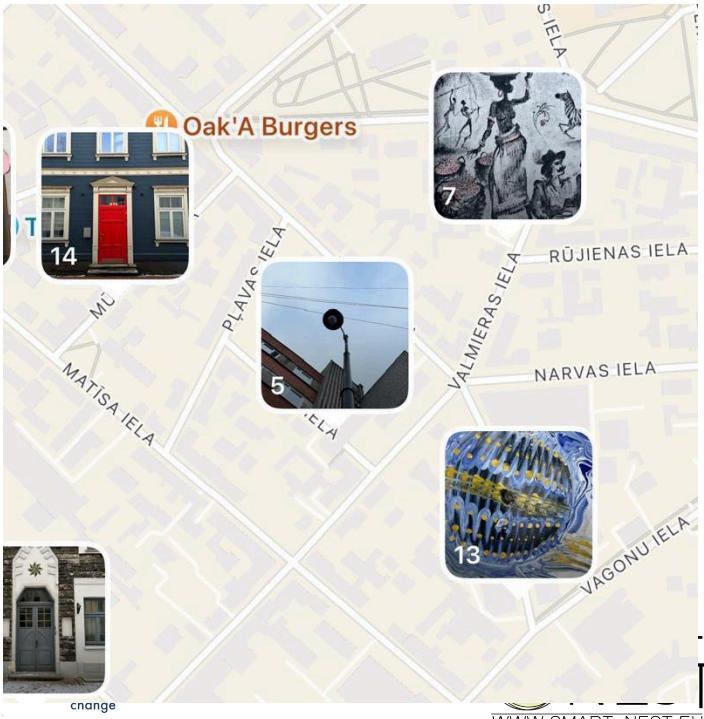
is especially true in places with many distractions, where too much visual “noise” can confuse participants.

A good course usually mixes both: some easy checkpoints that everyone can spot, and some harder ones for more experienced players. Organisers should also look at the visual quality of what they choose. Graffiti, murals, or street art can work very well, but in general, it is better if the object is pleasant to look at. Colourful, artistic, or unique features improve the atmosphere of the event. They also make the photo sheets or digital materials look more attractive.

3.2.2 Map preparation

A good map is one of the key parts of a successful photo orienteering event. Without it, even a simple activity can go wrong. In classic orienteering, organisers use very detailed maps made by professional cartographers. In photo orienteering, the situation is different. Most of the time, it is based on maps that already exist online. This makes the job easier and more flexible, but the organiser must still choose carefully: which map source to use, how to cut out the right area, and how to place the control points correctly.

The first step is to pick a reliable map provider. It is not only about the quality of the map but also about whether you are allowed to use it legally, especially if the event is repeated or has commercial use. One of the best and most common choices is **OpenStreetMap**. It is open-source, free to use and edit, and covered by the Open Database License (ODbL). Maps are updated frequently by volunteers and are available almost everywhere. This makes them very practical, especially for urban and semi-urban areas.



Once the map provider is picked, the next step is to cut out the event area. The simplest way is to take a screenshot at the zoom you need. Check that the quality is high enough – street names, symbols, and details must stay clear on paper. Zoom balance is important. Too close in, the area is too small. Too far out, and you lose the details.

Before the map is finished, think about clarity. Too much information makes it hard to read. Remove what is not needed – ads, random labels, extra background details. A clean map is easier for participants to use during the event..

When going out to take photos of the checkpoints, it helps to switch on the location tagging function on the phone camera. Then each picture automatically gets GPS coordinates. Later, when making the event map, you can use this data to confirm the exact spot of each checkpoint.

For even more accuracy, open the live map from the same provider on your phone. Right after you take the photo, make a screenshot of your position on that map. This is useful because sometimes the GPS tag from the camera does not match perfectly with the map system. With the screenshot, you have a second reference, and you can place the control point in the right place when preparing the materials. This step saves time and avoids mistakes, especially in places where the GPS signal may jump a little.

In photo orienteering, checkpoints do not need to be all the same. They can have different values, depending on how easy or difficult they are to find. A big building or monument can be worth fewer points, but a small detail or hidden spot can be worth more. A simple way is to use the first digit of the control code as the score. For example:

- Control 41 = 4 points
- Control 15 = 1 point
- Control 63 = 6 points

This system helps both sides. For participants, it is easier to plan their own strategy. For organisers, it makes building fair challenges simpler. Different values also open the event to more people. Beginners can go for the easy checkpoints, while advanced players will try for the harder ones with higher points.

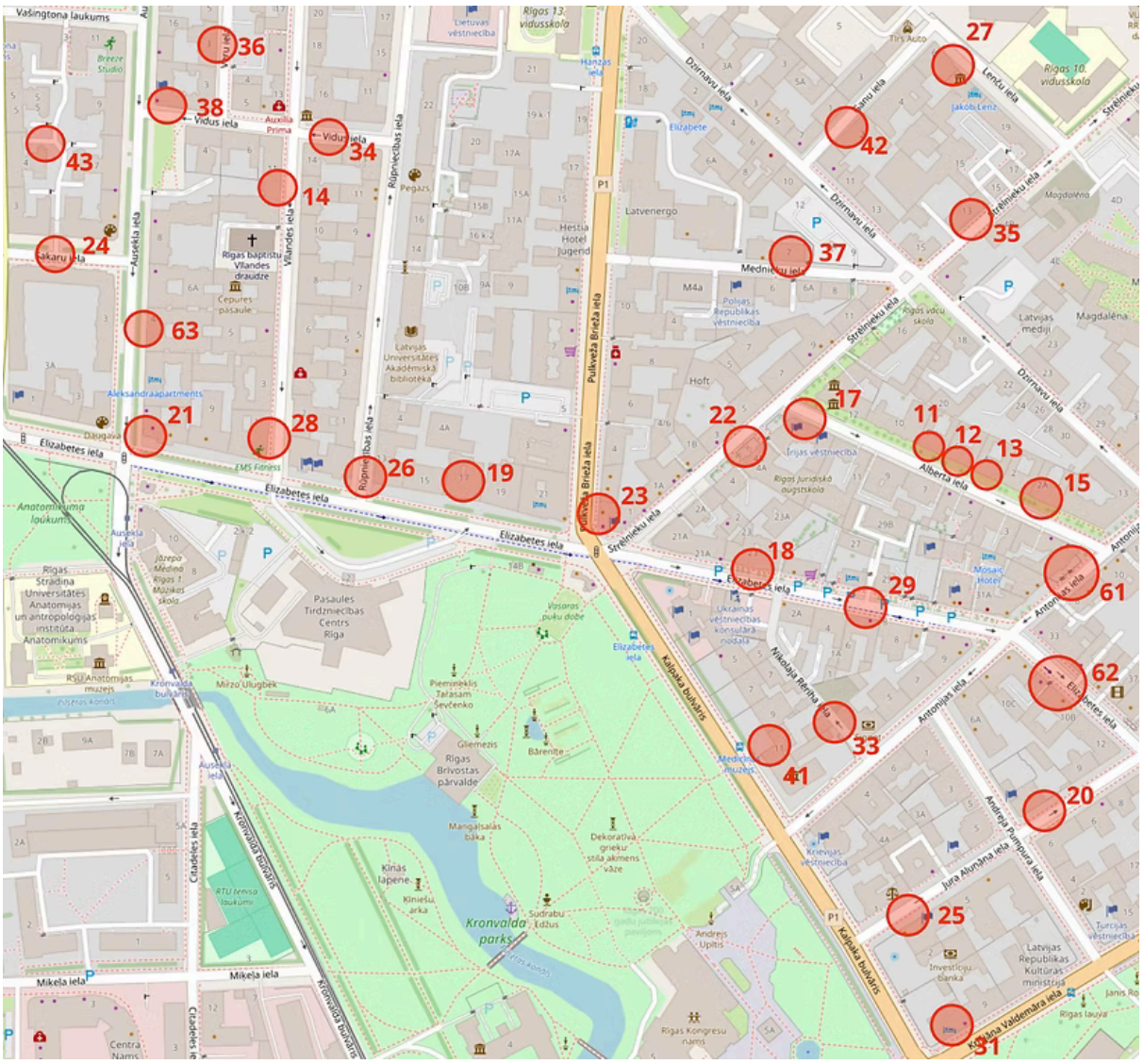


Figure 9 Map example with checkpoints of value starting from 1 to 6 points. Source: Made by author for www.kontrolpunkti.lv

When all checkpoints are placed, the map needs a final check. Look at clarity and consistency. Symbols, photos, and numbers must be easy to see. Avoid overlap or messy layout.

If the map will be printed, always make a test print to check if it is readable. For digital use, test it on different screens, especially on phones, since many participants will use them.

3.2.3 Checking-in

An important part of photo orienteering is the system for checking in at each checkpoint. Unlike classic orienteering, where participants use an electronic chip or a manual punch to mark their visit, photo orienteering requires more creative methods adapted to urban environments and visual tasks. The checking-in method should be

simple for participants, reliable for organisers, and flexible depending on the size and purpose of the event. Below are some of the most commonly used approaches.

One of the simplest and most popular ways to confirm visits is by taking a **selfie photo** at each checkpoint, with the chosen object visible in the background. To ensure that teams do not split up, all team members (or at least one representative) should appear in each picture. This method is very easy for participants to understand and requires no special materials. However, it takes time for organisers to review all the photos after the event, especially when there are many participants. To simplify this process, organisers may set up rules such as “only one phone per team” or “upload all photos into a shared folder immediately after the event.”

Another effective option is to prepare a **questionnaire** that lists all the checkpoints. Participants must connect each checkpoint with the correct photo, often using numbers or indices to identify them. To make the game more challenging, organisers can insert **extra (fake) photos** that do not correspond to real checkpoints. This method reduces the need for organisers to check hundreds of selfies and instead allows for quicker marking of results. It works particularly well for larger groups, such as schools, youth workshops, or public city events.

In this version, each checkpoint has a few photo options. Participants must choose the one that matches what they saw in the field. To stop people from just ticking everything, organisers add some fake photos. Wrong answers can give penalties.

This makes the game more strategic. Players must think carefully and be sure before they mark an answer. For organisers, it is easier as well, since they only need to check answer sheets instead of going through hundreds of photos.

One option is to put small QR codes near the checkpoint object. Participants then scan them with their phone to prove they were

there. The good part is that scanning gives an automatic time stamp, which makes result processing faster.

But there are also limits. QR codes must be printed, placed, and protected before the event. In open public spaces, they can be damaged or even removed, so it is advisable to avoid. They are most practical in schoolyards, parks, or other semi-private places where the codes will stay safe.

3.2.4 Event format

Photo orienteering can be set up in many ways. It depends on the goal of the event, how many people take part, and where it takes place. One of the first choices is the format – individual or team. Teams bring cooperation, communication, and learning from each other. Individual play shows independence and personal navigation skills.

The next choice is the start. A mass start gives excitement because everyone begins together, but it can also cause a crowd at the first checkpoints. An interval start is calmer and more fair, as people go one by one, and the flow is easier to manage.

Time rules are also flexible. Some organisers give a fixed limit, like 60 or 90 minutes, and the aim is to collect as many checkpoints as possible before the finish. Others allow a free start and a free finish within a wider window. That version works well for informal games, school events, or festivals.

This flexibility is the reason photo orienteering can fit both competition and fun activities.

3.2.5 Briefing and feedback

A good event doesn't really begin at the first checkpoint. It starts earlier, when the organiser gathers everyone together for a short talk. Before anyone sets off, the organiser explains the rules, safety points, and the purpose of the activity. This way, everyone begins with the same understanding, and small mistakes can be avoided.

In the briefing, a few key points must be covered:

- **Purpose** – is the activity for fun, learning, or competition?
- **Rules** – how checkpoints are found, how to check in, and how scoring works.
- **Safety** – traffic, private property, staying in safe areas.
- **Time and finish** – when and how to return.
- **Respect** – towards locals, the environment, and other players.

It also helps to provide the participants with an example. For instance, a checkpoint photo and how to record the answer. Short and clear instructions keep confusion low and make the event smoother. To avoid people forgetting, the main rules should also be printed on maps, photo sheets, or a leaflet, so they can check them anytime.

After the activity, a feedback round is just as important. Participants can share what they enjoyed, what was difficult, and what could be improved. This can be done in different ways – open discussion, quick survey, or even a simple “good / could be better” exercise.

Both sides get something out of this. Participants think back on their strategy and what they learned. Organisers pick up ideas for making the next event better. In youth or school settings, feedback also links the game to bigger learning goals like teamwork, communication, problem-solving, and observation skills.

With a clear briefing, simple written rules, and a bit of time for feedback, the event feels safe, fair, and enjoyable. It becomes more than just a game – it turns into an experience where people learn, share, and have fun.

3.3 Inclusivity Practices

Inclusivity is one of the main values in youth work and non-formal education. Photo orienteering fits this idea well, as it can be shaped in many different ways. The goal is simple: make sure people of all ages, abilities, and cultural backgrounds can join and enjoy. A good event gives equal chances for everyone, no matter their starting point.

When planning the course, think first about accessibility. Avoid barriers if possible, and choose areas that are safe for wheelchair users or parents with strollers. A smart way is to offer more than one route – for example, a short and easy track, and another one longer or more technical. The checkpoints can also be mixed. Some should be very clear and visible, others smaller and more demanding. This way, beginners and advanced players each find something interesting. Time limits should be flexible too, so slower participants can still complete without stress.

Clear instructions are another step towards inclusion. Rules should be written in simple language and, where possible, supported with visuals such as icons or photos. If people from different countries take part, providing information in more than one language makes the event more welcoming. To reach different learning styles, all key points should be shared twice – first orally during the briefing, and then again in written form on the maps or photo sheets.

Inclusion also grows through teamwork. Mixed groups – different ages, skills, or backgrounds together – encourage support and peer learning. A buddy system helps beginners gain confidence by pairing them with more experienced players. Designing checkpoints that are safe, fun, and suitable for families means children can also join, making the event attractive to a wide audience.

Cultural sensitivity should be part of the event. Picking checkpoints that show local history, creativity, or community values adds meaning. At the same time, organisers should remind participants to act respectfully towards residents, property, and nature. Inclusivity also means balance inside teams – making sure roles are shared and everyone is encouraged to take part.

Technology can make things even more accessible. Selfies are common for checkpoint proof, but organisers can also allow QR codes, stamps, or verbal check-ins for those who cannot or do not want to use smartphones. Assistive tools like magnifiers, audio description apps, or GPS hints can help people with special needs. Even feedback can be adapted – some may prefer to speak, some to fill in a digital survey, and others to draw their impressions.

Prepared like this, photo orienteering becomes more than just a game. It turns into a tool for inclusion, cooperation, and equal chances. This matches perfectly with the values of Erasmus+ and non-formal education, where activities are not only about sport but also about building communities and bringing people together.

4 Training & Coaching Resources

4.1 Teaching Orienteering Fundamentals

Teaching the basics of orienteering is the first step for two things: bringing newcomers into the sport and preparing future coaches who can later guide others. A good starting point is the material already covered in the earlier chapters of these guidelines. These parts explain the main definitions, types of orienteering, map reading, event formats, and also different check-in systems. Trainers working with beginners can use these sections directly as ready-made introductions.

However, going more in-depth is needed if someone wants to really understand the sport and be able to coach others. The International Orienteering Federation (IOF) website offers a wide range of useful material – official rules, mapping standards, training advice, and good practice examples from many countries. National federations also prepare resources suited to their own context: beginner booklets,

school packs, and event calendars. For example, the Latvian Orienteering Federation has collected methodological materials written in Latvian or developed locally. These are practical tools for trainers who want to connect theory with real events.

Local clubs and event organisers are another strong source of learning. Many countries have regional orienteering schools or beginner programmes where people can practice navigation in a safe, friendly setup. In Latvia, for instance, the club **Magnēts** runs its own orienteering school. It combines weekly training with accessible competitions, giving participants both structured learning and real practice at the same time. (Magnēts, n.d.[9]).

Figure 11 Orienteering school activity in Latvia. Source: https://www.magnets.lv/macies-orienteties/skolina

In Austria, many orienteering clubs give strong support to beginners and young athletes. They do this through regular training and youth-friendly events. For instance, **OLC Graz** runs weekly sessions for school pupils. These trainings introduce basic map reading and navigation, both in the city and in nearby forests (OLC Graz, n.d.[10]).

OC Fürstenfeld is well known for its school-level championships. The club also provides structured opportunities for young people to get into the sport in a more systematic way (OC Fürstenfeld, n.d.[11]).

[9] Magnets, orienteering school. Source: https://www.magnets.lv/macies-orienteties/skolina
[10]OLC Graz. (n.d.). *Schülertraining*. Source: https://www.olc-graz.at
[11]OC Fürstenfeld. (n.d.). *OC Fürstenfeld – Orientierungslaufclub*. Source: https://www.ocff.at

Near Vienna, **OLC Wienerwald** often hosts sprint races and competitions designed for younger participants. These events are popular entry points for newcomers (OLC Wienerwald, n.d. [12]).

All of these efforts together create a supportive space for young people in Austria who want to start their orienteering journey.

These kinds of initiatives make learning more engaging because they mix theory with practice in real environments – forests, parks, and also city areas.

Future coaches should use both self-study and practical involvement. Reading guidelines, watching videos, or exploring online map tools can build up the theory. Although it is just as important to take part in real events. Joining different formats as a participant gives hands-on experience that no book can replace.

By looking back on their own experiences, new trainers can better understand what beginners need. This reflection helps them adapt their teaching methods and become more effective in guiding others.

4.2 Safety Protocols

4.2.1 Navigation and “Not Getting Lost”

One of the key parts of safety in orienteering is ensuring people know how not to get lost – and what to do if it happens. Before the start, organisers should explain clearly that everyone must always carry a map, and when needed, also a compass.

In the briefing, the boundaries of the competition area should be pointed out. Use clear, visible features such as roads, rivers, or fences as “safety lines.” Participants should be informed that they should not keep walking if they are lost. Stop, re-orient the map, and head back to a safe place you already know – maybe a road or a checkpoint you visited before.

For bigger events, extra safety points can be set up. Volunteers or marked stations along the edge of the map can help guide people back to the event centre. In photo orienteering inside towns or cities, participants should also carry a phone. It can help with navigation and be used to call for help if needed.

[12]OLC Wienerwald. (n.d.). *Vienna Orienteering Challenge*. Source: https://olc-wienerwald.at

Every map or instruction sheet must include an emergency contact number. That way, anyone in trouble can quickly reach the organisers. And there should be a strict rule: everyone must return to the finish and check out, even if they didn't complete the course. This is the only way to be sure that no one is left behind.

4.2.2 Environmental and Terrain Hazards

Orienteering can be done in many places – small parks, city streets, and deep forests. Each place has its own risks. In nature, the dangers are obvious: steep slopes, cliffs, swamps, rivers, and thick bushes. Best to leave these out of the course. If you are unable to do so, then mark them clearly on the map with purple or red. Then tell the people about them in the briefing. Better to warn twice – once before the start, once on the map.

In towns, the danger is traffic. Cars, bikes, scooters. Participants should be told: use crossings, follow the rules, and stay alert. Organisers can make it safer by keeping checkpoints away from busy streets. Parks, squares, and pedestrian areas are much better choices.

In addition, the weather can make things more difficult. Rain makes hills slippery. Snow and ice hide stones, roots, and holes. The organiser has to adjust the course of the day and provide clear warnings if conditions are tricky.

Think ahead. Say it clearly. If hazards are managed well, the event can stay fun, challenging, and safe.

4.2.3 Health and Nature risks

Orienteering in nature is great, but let's be honest – there are risks too. Ticks are probably the most common problem in Europe. They spread Lyme disease and tick-borne encephalitis. It is advised to wear long sleeves and trousers, spray some repellent, and after the race, check your skin. It is simple, but people tend to forget.

Then there are insects. A wasp sting hurts, but for others it can be worse – allergies can be serious. Those who know they react badly should always carry their own medicine. It could be antihistamine tablets or an EPI-PEN.

Weather can mess things up as well. Hot days bring dehydration and heatstroke.

Organisers should remind people to bring water, wear light clothes, a hat, and sunscreen. Cold or rain brings the opposite – risk of hypothermia, especially for kids or new participants. One extra layer of clothing can really help.

At the event centre, there should always be a first aid kit. And if someone with first aid training is available, even better.

So – ticks, insects, weather. If organisers keep these in mind and talk about them clearly, the race stays fun and safe.

4.2.4 Emergency Preparedness

Every orienteering event needs an emergency plan. No exceptions. A first aid kit should always be at the start or finish area. Organisers should also assign at least one person who knows basic first aid.

The map given to participants should have the organiser's emergency phone number printed on it. If something happens, people must be able to call quickly.

For forest or rural events, it helps to have a small team ready. They should be able to move fast – with a bike, a car, or at least on foot into the terrain. Their job is simple: reach and assist.

There should also be a clear timeline for checking returns. Many events set a "course closing time." After that, volunteers sweep the area and make sure no one is still out there.

In bigger or tougher events, working with local rescue services is a smart step. Especially if the terrain is remote or risky.

The whole emergency plan should be reviewed in the organiser's meeting before the start. Everyone needs to know their role.

Good planning keeps small problems from becoming big ones. And it shows the participants that safety is taken seriously.

4.2.5 Communication and Rules

Clear communication and simple rules are the backbone of safety. The rules must be explained in the briefing. They should also be written on the event materials, so people can check them anytime.

Participants need reminders: respect private property, stay inside the marked boundaries, and follow local laws and customs. In photo orienteering, carrying a phone should be a strict rule. The phone is both a camera for check-in and an emergency tool if something goes wrong.

There must also be a reporting system. Every participant or team has to return and check in at the finish, even if they quit the course early. Without this, organisers might think someone is still out in the terrain.

In youth or school events, a buddy system works well. No one should be left alone.

The rules should also encourage responsible behaviour. Don't drop litter. Don't damage nature. Show respect for local communities.

Clear rules and good communication build trust. And they make safety part of the event culture, not just an extra.

4.2.6 Inclusivity and Participant Awareness

Safety also means understanding that participants are different. Not everyone has the same age, strength, or experience. Courses should reflect that. Kids, first-timers, or people with limited mobility need shorter, simpler routes.

For children or anyone vulnerable, a buddy system works best. Nobody should wander around alone unless they really know what they are doing.

Organisers can also ask ahead of time if someone has health conditions — allergies, asthma, or mobility issues. Better to know before, therefore, support can be ready.

Clear communication is part of safety. Rules should be written in plain, simple words. If the group has mixed languages, give translations. Visual symbols can help too. A picture is often understood faster than text.

When inclusivity is built into safety rules, the event becomes safer and fairer. Everyone understands what to do. Nobody is left at risk because of unclear words or wrong expectations.

4.3 Engaging Diverse Participants

4.3.1 Adaptions for Age

Orienteering is one of the few sports where all ages can take part in the same event. However, it only works if the courses are adapted to the different needs.

For children and younger kids, the event should be short, simple, and playful. Big, visible checkpoints, safe terrain, and small tasks such as collecting characters or answering easy questions help keep them motivated. It also avoids frustration.

Teenagers and young adults usually want challenges and excitement. Competitive formats such as sprint races, urban photo orienteering, or team relays are good ways to keep them engaged.

Adults often need more flexibility. Their schedules are busy with work and family, so events that allow different start times or offer more than one course option make it easier for them to participate. Giving people choices helps them balance sports with their daily lives..

For older adults and seniors, safety and social contact matter more than speed. Courses should follow safe paths, be less demanding physically, and highlight the health benefits of steady activity. The social aspect is also important — a chance to meet, talk, and share the experience. Many federations stress that senior participation keeps people active for life and supports wellbeing.

By shaping the activity for each age group, organisers can keep orienteering inclusive. Kids get fun and play, young people get challenges, adults get flexibility, and seniors get safety and community. In this way, the sport remains meaningful across the whole lifespan.

4.3.2 Adaptions for Skill Level

Orienteering brings in all kinds of people – from complete beginners to elite athletes. Events have to be adapted to fit those different skill levels.
For beginners, the best start is something structured and simple. A short workshop on map symbols and compass basics helps. Then, an easy practice course. Using simplified maps with fewer details, routes that are clearly marked, and even a buddy system, makes the first experience less stressful.
At the intermediate stage, the challenge should grow. Courses can include more route choices, denser control placement, and sometimes time pressure. Debriefing

after the race is useful here. Talking about mistakes and route choices helps participants improve.
Advanced orienteers require more. Technically demanding maps, complex terrain, and longer formats such as rogaining are what keep them engaged.
The Latvian Orienteering Federation points out that building levels of difficulty is key. It keeps motivation high and helps participants stay in the sport. A clear pathway – beginner, intermediate, advanced – gives everyone the right kind of challenge, and builds both skills and confidence over time.

4.3.3 Adaptions for Physical Ability

Inclusivity in orienteering also means adapting activities for people with different physical abilities. For those with limited mobility, barrier-free routes in parks, paved paths, or schoolyards can be used. **Trail orienteering** is a great option here. It focuses on map reading instead of speed and lets wheelchair users compete on equal terms (IOF, 2019[13]).

For participants with different fitness levels, organisers can prepare both short and long courses. Time rules can also be flexible. A softer time limit, instead of a strict cut-off, lowers pressure but still keeps the event fair.

People with visual or cognitive impairments may need extra support. Larger map printouts, simpler symbols, or pictorial instructions can make a big difference.

Check-in systems should also be flexible. Not everyone can or wants to use a smartphone selfie. Alternatives like QR codes, stamps, or even verbal confirmation keep the event open for all (Orienteering Greece, 2018[14]).

Mixed-ability teams are another way to strengthen inclusion. Peers can support each other and share tasks.

By taking steps like these, organisers show that orienteering is more than just competition. It is also a tool for social inclusion and equal participation, fully in line with the goals of Erasmus+ and non-formal learning (European Commission, 2017).

[13] International Orienteering Federation. (2019). *Trail Orienteering Guidelines*.
Source: https://orienteering.sport/iof/trail-orienteering
[14] Orienteering Greece. (2018). *Beginners perspectives of getting involved in orienteering in Greece*.
Source: https://orienteering-greece.org/2018/07/14/beginners-perspectives-of-getting-involved-in-orienteering-in-greece

5 Participant Guidelines

Orienteering only works well if both sides are prepared. Organisers must do their job, but participants also need to be ready and act responsibly.

Simple, clear guidelines for participants help a lot. They should explain what to bring, how to behave during the event, and what to do afterwards. This is extra important in schools or other non-formal learning settings, because many people are trying the sport for the first time.

Basic advice on equipment, safety, and etiquette makes participants feel more confident. It also reminds them to take responsibility. With that in place, they can focus on the real goal — enjoying the activity and learning from it.

5.1 Pre-event preparation

The map is the orienteer's main tool. At events, participants usually get a special event map with all checkpoints shown. These maps are made to show terrain features, paths, vegetation, and obstacles very clearly (Orienteering-Sport, n.d. [15]). To protect it, put the map in a waterproof sleeve. In forests or in wet weather, this is almost a must. Many orienteers also carry a control description sheet. Sometimes it is printed on the map, sometimes separate. It helps check the details of each control during the run. As people get more advanced, they may use map holders or boards on the arm, chest, or bike. For photo orienteering, usually the map and the control sheet are enough.

A compass is the standard tool allowed in orienteering. It is often essential in unknown terrain (Orienteering-Sport, n.d.). The two main types are baseplate and thumb compasses. Many prefer the thumb type because it allows quick orientation of the map while running (South Yorkshire Orienteers, n.d. [16]). The compass keeps the map aligned with the ground and helps when the path is unclear. In simple formats, especially photo orienteering in towns, a compass is not always needed. Nevertheless, having one still adds confidence and makes navigation more accurate.

[15] Orienteering-Sport. (n.d.). *Equipament and material*. Source: https://orienteering-sport.com/equipament-material/
[16] South Yorkshire Orienteers. (n.d.). *Clothing & Equipment*.
Source: https://www.southyorkshireorienteers.org.uk/juniors/747-clothing-and-equipment

Clothing and footwear matter too. Durable, moisture-wicking layers work best. They protect against weather, insects, and scratches. In forests, long sleeves and trousers are recommended, as they also reduce tick risk (Georgia Orienteering Club, n.d.). For shoes, trail runners with a strong grip are ideal in natural terrain. In city events, normal running shoes are often fine. Small extras are worth considering. A whistle for emergencies. A watch or timer. Water bottle. Sunscreen. Medicines if needed. In bushy areas, gaiters stop dirt and stones from getting inside shoes (Georgia Orienteering Club, n.d.). Even in photo orienteering, simple items like a pen, a spare battery, or a cover for the phone camera can be useful.

Together, maps, compasses, and clothing make the base for safe and enjoyable orienteering. Each has its role. A checklist makes sure nothing is forgotten.

Essential: event map (with control descriptions), compass, suitable sports clothing, strong shoes.
Recommended: waterproof map sleeve, water, sunscreen, insect repellent, whistle, small first aid or personal medicines.
Optional: gaiters, gloves, GPS or watch, spare phone battery, or other comfort gear, depending on terrain and event type.

5.2 On-Course Etiquette

5.2.1 Fair play and Honesty

Orienteering is based on trust. Fair play sits at the core of the sport.
Participants are expected to finish the course using their own navigation skills. No shortcuts that break the rules. All checkpoints must be visited in the right order when required, and each visit recorded honestly — by punching, scanning, or taking a photo.
Following other competitors, or simply copying their route, takes away the challenge. It also goes against the spirit of the game. The same goes for using outside help, such as GPS navigation, if it is not allowed.
The International Orienteering Federation stresses that integrity and self-reliance are central values (International Orienteering Federation, 2020[17]). Every participant should be a role model in keeping the sport fair.
By respecting these principles, the results reflect real skill and effort — nothing else.

5.2.2 Respect for Others

[17] International Orienteering Federation. (2020). *Fair Play Code*. Source: https://orienteering.sport/iof/fair-play

Good etiquette on the course also means showing respect to others. Orienteering brings together people of all ages, abilities, and levels of experience.

Slower participants should never feel pushed. Faster runners should be given space to pass, especially on narrow paths. At checkpoints, it's polite to step aside once you've recorded your visit so others can do the same.

Respect also means being supportive. A word of encouragement for beginners. Patience with children and families. In photo orienteering or school events, where groups are common, giving others space makes the activity smoother and more enjoyable for everyone.

The European Fair Play Movement notes that respectful behaviour creates positive sporting environments and helps build stronger community bonds. (European Fair Play Movement, 2019[18]).

5.2.3 Safety Awareness

Safety comes first. Always. Competition is second.
Participants must watch their surroundings. Cliffs, steep slopes, rivers in the forest. Traffic in the city.
In classic orienteering, a whistle is recommended. Three short blasts = distress signal. In photo orienteering, a phone is normal. Works for photos, works for safety too.
Everyone has to come back to the finish, even if the course is not completed. Organisers need to know that all is safe.
Organisers explain the rules, but safety is also personal. Each person is responsible for themselves and for others (British Orienteering, n.d. [19]). Staying alert, making careful choices, reporting problems — this is how the event stays safe.

5.2.4 Respect for Nature and Community

Orienteering happens in forests, parks, and city streets. Wherever it takes place, participants need to treat the environment with respect.

Stay on permitted routes. Avoid fragile or restricted areas. This protects nature and prevents problems with landowners. Do not trample sensitive plants or disturb animals.

In urban photo orienteering, respect for local people is just as important. Don't block entrances. Don't disturb residents. Keep the noise down in housing areas.

[18] European Fair Play Movement. (2019). *Fair Play Values in Sport*. Source http://www.fairplayeur.com
[19] British Orienteering. (n.d.). *Safety Guidelines*. Source: https://www.britishorienteering.org.uk/safety

A respectful attitude keeps good relationships with the community and makes it easier to get permission for future events. The IOF Fair Play Code reminds us that protecting nature and respecting others is part of the sport's ethical foundation (International Orienteering Federation, 2020).

5.2.5 Care for Checkpoints

Checkpoints are the heart of orienteering. They must never be damaged, moved, or tampered with.

Control flags, electronic units, or photo markers are placed by organisers with care. If they are altered, the whole event can be spoiled for others.

Participants should only use checkpoints as instructed — scan, punch, or take a photo. Nothing more. No moving or adjusting.

In photo orienteering, checkpoints may be stickers, QR codes, or posters. These also must be left exactly as they are.

If a checkpoint looks damaged, tell the organiser. Do not try to fix it yourself.

Looking after checkpoints keeps the event fair and makes sure everyone faces the same challenge.

5.2.6 Self-Reliance and Responsibility

Every participant is responsible for their own navigation. Time, energy, and choices — all need to be managed. Problems on the way should be solved by the runner, not by others.

In group events, teamwork is fine. But each person should still decide for themselves. Don't just copy someone else's route.

Responsibility also means being realistic about ability. Choose a course that matches your level. Always check back at the finish. Tell organisers if something goes wrong.

In education, this approach builds resilience, confidence, and problem-solving skills. These are seen as key results of non-formal learning (European Commission, 2017).

By taking care of themselves and by respecting the event rules, participants keep a culture of trust and learning alive.

5.3 Post-Event Reflection

Post-event reflection is an important step. It helps participants connect what they did with what they learned. Orienteering is not only physical, it is also a mental challenge. Looking back makes people think about their own decisions.
Simple questions can guide the process:
• Which route choices worked well?
• Where did I lose time, and why?
• How did I use the map and compass?
For team activities, reflection can also look at communication. How the group divided roles. How they handled disagreements. How they supported each other. Many youth projects use this kind of structured reflection because it turns the experience into deeper learning (European Commission, 2017). Pausing to reflect builds confidence and highlights transferable skills like observation, problem-solving, and resilience.
For organisers, feedback is just as important. Clear instructions? Right level of difficulty? Were checkpoints fun? Was the event safe? These are things worth asking. Feedback can be collected in many ways — quick surveys, group talks, or online forms. Organisers should also explain how feedback will be used. That makes participants more willing to give honest answers (British Orienteering, n.d.). Collecting and reviewing feedback over time also helps clubs and federations improve their events.
Reflection is not only about individual growth. It also strengthens the community side of orienteering. After the event, participants can share experiences in small groups, or use simple tools like the “plus–minus–interesting” method. Sharing highlights and challenges creates belonging. People also learn from each other’s strategies. Posting photos or short reflections online extends this sense of community, showing the wider world what participants achieved and promoting the sport (International Orienteering Federation, 2020).
Reflection can also include sustainability. Participants and organisers can ask if the event was eco-friendly. Did we avoid waste? Were checkpoints placed responsibly? Could transport be planned better next time? Linking these talks to broader EU goals like the Green Deal helps connect sport to larger social values (European Commission, 2019[20]). When organisers integrate sustainability into reflection, they improve future events and raise awareness of ecological responsibility among participants.

[20] European Commission. (2019). *The European Green Deal*. Publications Office of the EU.
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6 Adaptations from the research

These guidelines were developed as part of the *Beyond Maps* Erasmus+ Sport project. The first step was field analysis in Latvia, Austria, and Greece to identify the main challenges for making orienteering more popular.

Orienteering in Europe shows a mix of traditions, perceptions, and also unused potential. The details differ between countries, but some common themes appeared.

In all three places, lack of time and low motivation were named as barriers to sports in general. For orienteering itself, the biggest obstacles were map-reading skills and the fear of getting lost — especially for beginners.

At the same time, the study showed strong motivators. Adventure, nature, and the chance to socialise were mentioned again and again as the reasons people join.

Another important point was sustainability. Participants valued eco-friendly practices and often linked orienteering with environmental responsibility. This suggests that sustainability can be a cornerstone in promoting the sport.

6.1 Key Challenges and Practical Solutions

6.1.1 Lack of Awareness and Visibility

One of the clearest findings, especially in Austria and Greece, is a lack of awareness. Many people have never even heard of orienteering. And if they have, they often see it as a niche or too difficult to access.

In Greece, more than 70% of respondents had no knowledge of the sport at all. In Austria, fewer than 10% had ever tried it. With visibility so low, it is hard for organisers to attract newcomers or grow a strong community.

Solution: These guidelines already give simple introductions to orienteering — its basics, definitions, and the main formats. Organisers can use these parts to design easy “taster” events that explain the sport in clear terms and showcase formats like photo orienteering. The advice on planning and publicity in this handbook can also help make activities more visible, whether in schools, outdoor clubs, local media, or social networks.

6.1.2 Technical Barriers – Map Reading and Fear of Getting Lost

In Latvia, the biggest barrier was a lack of map-reading skills. In Greece, many said they were afraid of getting lost without GPS. Even in Austria, where outdoor activities are popular, confidence with maps and compasses was low. This was especially true for younger people who are used to digital navigation tools.

Solution: This handbook already includes the basics — map reading essentials, explanations of symbols, and practical tips on using a compass. These parts can be used as training material for beginners. The guidelines also point to orienteering schools and coaching resources that organisers can share.

For newcomers, it helps to start small. Photo orienteering or urban events are less intimidating. Once skills grow, participants can move on to more complex forest courses. By showing these resources clearly in briefings and promotional materials, organisers can ease anxiety and motivate people to learn.

6.1.3 Accessibility and Logistics

Accessibility challenges vary by country. In Latvia, transport to forests was mentioned as an occasional issue, while in Greece, wildfire restrictions and permits were identified as key obstacles. Austrian participants highlighted concerns about weather and seasonal conditions. If people perceive an event as logistically complicated or hard to reach, participation will remain limited.

Solution: The **event planning** section of these guidelines already advises organisers on choosing suitable locations, obtaining necessary permits, and adapting formats to the local context. Organisers can use this framework to select urban parks or peri-urban forests with good transport links, and to schedule events in seasons that avoid weather extremes or environmental risks. The adaptability of photo orienteering, in particular, provides a practical solution for areas with restrictions or limited access to natural terrain.

6.1.4 Safety and Risk Perception

Safety concerns came up in all three countries. In Latvia, people worried about ankle injuries on uneven, moss-covered ground. In Greece, fears were about wild animals, allergies, and wildfire risk. In Austria, weather conditions and group dynamics were mentioned. For many beginners, just the idea of getting lost or hurt is enough to stay away.

Solution: These guidelines already have a section on safety. It covers injury prevention, tick protection, and environmental risks. Organisers should make sure safety rules are explained twice — once in the briefing, and again in printed materials. Using these ready-made resources helps reassure participants and shows professionalism.

Pair safety protocols with beginner-friendly event design, as described earlier, and the risks will feel much smaller.

6.1.5 Inclusivity and Community Engagement

Another common theme is community and inclusivity. In Latvia, orienteering is often part of family traditions. In Austria, participants were open to intercultural teams, even including migrants. In Greece, many preferred pairs or small teams, both for safety and for bonding. If newcomers feel left out or isolated, they usually don't come back.

Solution: The inclusivity practices described earlier in this handbook give organisers a set of tools. Family-friendly formats, buddy systems, and multilingual communication are already covered here and can be put straight into practice. The section on training and coaching also points to ways clubs and federations can keep people engaged over time.

By actively creating welcoming spaces and using these inclusivity strategies, organisers can make orienteering a sport where everyone feels they belong.

7 Sustainability and Dissemination

7.1 Community Building, Clubs and Generational Participation

One strong lesson from the Latvian focus groups is that orienteering is not just an individual sport. It is a community activity that often spans generations. People described events where grandparents, parents, and children all gather in the same place. The result is an atmosphere that mixes competition with family tradition. This kind of multi-generational participation keeps the sport alive. New members are introduced not by campaigns, but through routines and shared family time.

In Austria, participants said they would not want to take part alone. Small groups of friends or families made the sport more appealing. The same pattern showed in Greece. Both surveys and focus groups highlighted that newcomers prefer pairs or

small teams. Safety, confidence, and enjoyment were the main reasons. Across all three countries, the message is similar: orienteering is sustainable only when there is a strong community and social connection.

To make orienteering last, organisers must think beyond single events. Local clubs and informal communities are key. Clubs give regular practice, mentorship, and continuity from season to season. They also pass knowledge between generations and make events part of the cultural calendar. But community does not only mean formal clubs. Family traditions, informal networks, or digital groups can all be powerful drivers.

The main point is that people need to feel connected and welcome. For organisers, this means paying attention to the social side. Design events that include time to meet and talk. Create family-friendly formats. Use team-based competitions. By investing in community, organisers strengthen participation now and build a steady flow of future orienteers.

7.2 Environmental Responsibility in Orienteering

Orienteering has always been linked with nature. That connection makes sustainability part of the conversation from the start.

In Austria, focus group participants spoke about *Leave No Trace* principles. Some even suggested creative ways to bring environmental awareness into the competition itself. Bonus points for rubbish collection. Small clean-up actions are built into the course.

In Greece, ideas went further. People proposed tree-planting as part of events. A way for sport to leave something behind, not just take. In Latvia, survey results showed most respondents value eco-friendly practices and see orienteering as a natural fit with them.

For sustainability to matter, organisers need to build it into the event, not just add it on top. That can mean clear rules about avoiding wildlife disturbance, staying away from erosion-prone areas, and reducing waste on site. The briefing and reflection stages (described earlier) are also good

moments to teach participants about impact and sustainable practices. When linked with ecological values, orienteering becomes a platform for environmental education, especially for young people.

Long-term sustainability also depends on trust with local authorities and landowners. In Greece, wildfire risks mean events must follow regulations and seasonal rules. In Austria, forest owners and municipalities often decide if an event can happen at all. Showing strong environmental responsibility helps organisers in these negotiations and keeps access open.

In the end, sustainability is not only about reducing impact. It is also about building cooperation so that orienteering can continue in harmony with the environment.

7.3 Knowledge Sharing and Dissemination Practices

A sustainable orienteering culture needs more than participation. It also needs the sharing of knowledge, resources, and good practice. Research in all three countries showed that many barriers, like a lack of map-reading skills in Latvia or a lack of awareness in Greece, can be reduced if organisers share what they know. When experiences are passed on, one event benefits not just its own team but the wider community of teachers, organisers, and participants.

Dissemination can take many forms. At events, organisers can hand out materials on map reading, safety, and inclusivity. That way, the information isn't lost after the briefing — people can keep it and use it later. Beyond single events, sharing should reach into schools, universities, and sports clubs, which are often the entry point for youth and newcomers. Dissemination also means going public: posting photos, short videos, and stories on websites and social media. This shows the fun and social side of the sport. It attracts new participants and helps give orienteering legitimacy as a recognised and valued activity.

Another part of dissemination is reflection. Gathering feedback after events creates a learning cycle. Each event then feeds into the next. Organisers can spot new needs — about safety, accessibility, or inclusion — and adapt. When this reflective knowledge is shared between clubs, regions, or even across countries, the sport evolves as a whole instead of in separate pockets.

In the end, dissemination is not only publicity. It is creating a system of shared learning that keeps orienteering growing and sustainable.

7.4 Partnerships and Cross-Sector Collaboration

No sport can survive on its own. Research shows the same for orienteering — it needs partnerships to grow.

Partnerships widen the reach, give logistical support, and make the sport more sustainable by tying it into bigger networks. Municipalities may back events if they are linked to health, education, or tourism. Schools may include orienteering in lessons if teachers have ready-made training materials. NGOs in fields like environmental education or social inclusion may use orienteering as a platform for their own goals. By creating these links, organisers not only strengthen their events but also show that orienteering connects with many policy agendas — from sustainability to youth empowerment.

Partnerships also bring new ideas. Orienteering can be combined with heritage trails, digital tools, or environmental campaigns to create fresh event formats and reach wider audiences. The real strength of partnerships is stability. When different stakeholders see value in the sport, it is more likely to gain lasting support, funding, and visibility.

7.5 Digital Dissemination and Visibility

Sustainability today also means using digital tools well. In Greece, focus group participants suggested apps like Strava — to track progress, rank results, and build community. This points to a wider trend. Digital visibility keeps people engaged between events. Sharing routes, results, and stories online creates a narrative that lives on after competition day.

Digital tools also make it easier for newcomers. Short tutorial videos, quizzes about map symbols, or interactive maps can prepare people before they even show up. On social media, organisers can highlight the adventurous, nature-based, and social side of orienteering — the very motivators named across all three countries. By showing orienteering as more than a sport, as a lifestyle, digital dissemination can reach younger and urban audiences who might never find it otherwise.

Inclusivity also benefits. Multilingual resources online help migrants and international participants

take part. Event apps can add features like bigger fonts, simplified maps, or GPS safety options. Digital tools also break geography. A small local event can be shared globally, inspiring communities far away.

By using digital dissemination, orienteering stays visible, relevant, and adaptable in a connected world. Sustainability here is not only about keeping traditions, but also about using new tools to reach the next generation.

8 Conclusion

Orienteering is not only about running and finding checkpoints. It is more than that — a mix of physical effort, strategy, and connection with nature and people.

In this handbook, we explained the basics: what orienteering is, the different disciplines and formats, and gave practical advice on maps, safety, and inclusivity. What makes it important is that the material is not only theory. It also comes from real research in Latvia, Austria, and Greece. We listened to participants, to communities, to beginners. Their answers show clearly both the challenges and the possibilities for the sport.

The picture is mixed. Orienteering still faces barriers — low visibility, missing technical skills, and accessibility. At the same time, the strengths are very clear: adventure, nature experience, and community. If organisers use these strengths and follow the solutions described in the guidelines, the sport can grow and stay sustainable.

The three partner countries each show different situations. In Latvia, there is already a strong tradition. Families and several generations attend together, supported by clubs that run weekly activities. In Austria, nature and sustainability are valued, but orienteering is still little known outside smaller outdoor groups. In Greece, awareness is very low, but once people understood what the sport is, interest was strong. Different starting points, but also many similarities. In all three countries, people said the same barriers: difficulty in reading maps, fear of getting lost, lack of time and motivation. And the same motivators: adventure, being outdoors, and sharing time with friends or family. In all places, orienteering was also linked to environmental responsibility, which makes it attractive, especially for younger people.

This handbook answers directly to those challenges. The section on map reading and symbols gives beginners the knowledge they often miss. Safety protocols provide ready-to-use material on risks and protection — terrain, ticks, and injuries. The chapters on formats, briefings, and feedback explain how to prepare, run, and

review events so participants feel safe and welcomed. Inclusivity practices are included to help organisers involve children, families, migrants, or people with mobility difficulties. So the guidelines do not just describe problems. They give practical tools to solve them.

Sustainability and dissemination are big themes here. Orienteering is not only a one-time event. It is a community sport that grows through clubs, friendships, and family traditions. Latvia shows how strong this community can be. In Austria and Greece, the social part — being together in pairs or small groups — was a main motivation. Making orienteering a community sport is what brings people back.

Sustainability also means ecological care. In every country, participants connected orienteering with nature. Some even suggested adding clean-up or tree planting to events. This shows the sport can be recognised as eco-friendly and responsible. Dissemination is another part. By sharing knowledge in schools, online, or through reflection sessions, the results go beyond one event and help future ones too.

The future depends on adaptability. Events should be flexible: short urban formats for city people, family events for newcomers, long rogaining competitions for experienced athletes. Training materials should be available so beginners can learn step by step, without fear. Inclusivity must remain a core value because diversity makes the sport stronger. Digital tools also help — apps, leaderboards, and online stories keep interest alive between events.

In the end, these guidelines are more than a manual. They are a roadmap for making orienteering stronger, more sustainable, and more inclusive. By using the advice and tools — based on both research and practice — organisers can move the sport from niche to recognised and valued across Europe.

Orienteering is movement with meaning. Adventure with learning. Individual experience with the community. If developed with creativity, inclusivity, and responsibility, it can inspire not only the present generation but many more to come.

9 Appendices

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