EUMA – improvement of good governance of climbing and mountaineering in Europe

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WG-Trails

Final project report

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Agenda

- Introduction of WG- Trails members
- Analysis report
- Recommendations of hiking, walking and mountaineering trails
- Way marking booklet
- Recommendation for maintaining hiking, walking and mountaineering trails
- Leaflet for responsible use of hiking, walking and mountaineering trails
- Strategy and proposals for future activities

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Members of the working group trails

- **Leader**
- Schuster, Helmut ERA European Ramblers´ Association
- **Members**
- Aschaber, Andreas OeAV Austrian Alpine Club
- Gareis, Nicolas DAV German Alpine Club
- Harnochova, Jana ERA European Ramblers´ Association
- Jiroudkova, Petra CHS Czech Climbing Association
- Kotnik, Katarina PZS Alpine Association of Slovenia

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Members of the Working Group Trails

• Latorre, Angelo	ERA	European Ramblers´ Association
• Mair, Hanspeter	DAV	German Alpine Club
• Rotovnik, Bojan	EUMA	European Union of Mountaineering Associations
• Seliger, Bogdan	PZS	Alpine Association of Slovenia
• Simonovski, Simon	FPSM	Mountaineering Federation of North Macedonia
• Stefanovski, Boban	FPSM	Mountaineering Federation of North Macedonia
• Tomalova, Eliska	CUNI	Charles University Prague

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Members of the Working Group Trails

20 video conferences

7 meetings in presence

A greate praise to all team members

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Final project results
ERASMUS PLUS Project

EUMA – improvement of good governance of climbing and mountaineering in Europe European Trails analysis

Munich 2nd of December 2022

Aschaber, Andreas (7) Helmut Schuster (8), Bojan Rotvnik (1), Bogdan Seliger (3), Petra Jiroudkova (9), Simon Simonovski (4), Jana Harnochova (8), Angelo Latorre (8); Hanspeter Mair (2), Eliska Tomalova (6)

Orga[illegible](s): 1:[illegible]Union [illegible]ring [illegible]elgium; 2: DAV, Germany; 3: PZS, Slovenia; 4: FPSM[illegible] Mace[illegible]OA, [illegible]NI, [illegible] 7:ÖAV [illegible]; 8:ER[illegible] Cech

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Where it starts?

Hiking is the oldest and most popular activity in nature while hiking trails are the most extensive sports facilities in the world.

Trails connect people across countries in the same way as streets or railway tracks do.

Source: Andreas Aschaber, 2022

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European Union of Mountaineering Associations
EUMA

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Function of trails

- Trails **connect** people over boarders
- Trails facilitate **European Cohesion**
- Trails are easy **accessible** infrastructure which is **free** of use
- Trails provide a cost-effective intervention for **physical activity** – which leads to:
  - Positive **health** benefits
  - Positive effects on **mental** and **emotional** health
  - Reduction of **civilisation disease**
- Serve as a **visitor guidance** tool
- Reduce the pressure on **nature**
- Enhance **environment protection**

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Source of data

- **Quantitative online questionnaire multiple choice/open questions**
- **Trail experts of EUMA and ERA**
- **37 responses**
- **30 EU countries → 2.8 million individual members**
- **Qualitative Focus group**
- **External expert evaluation**

Source: Helmut Schuster, 2022

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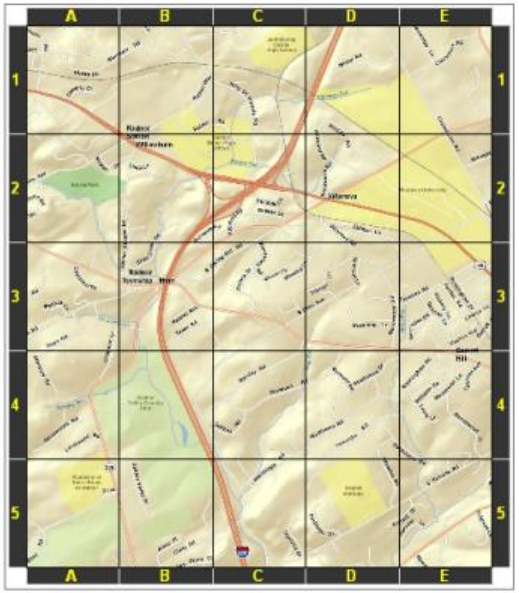
Striking hard facts

- Total length of hiking trails in Europe is about **1,500,000 km**
- Total length of hiking trails maintained by our MOs is **1,145,976 km** in an area of 3,239,490 km²
- On average, 350 m of trails per km²



Source: Arc Gis, 2022

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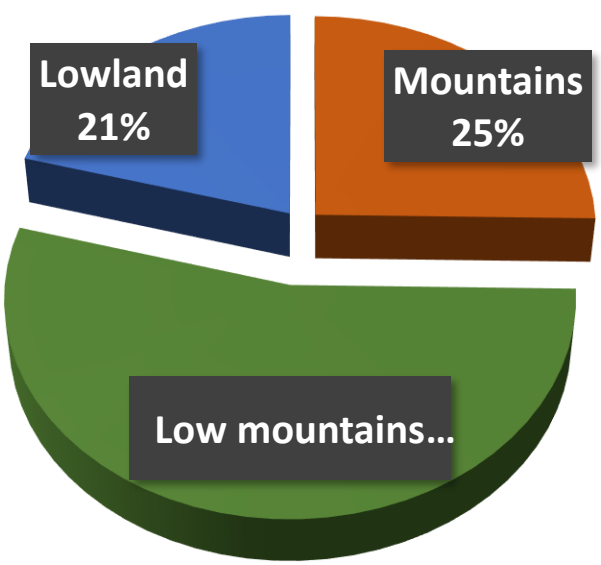
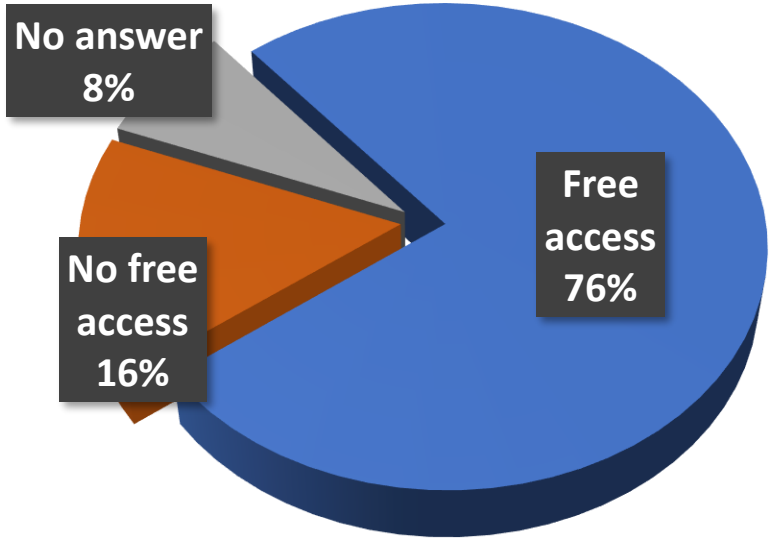
Location of trails and free access





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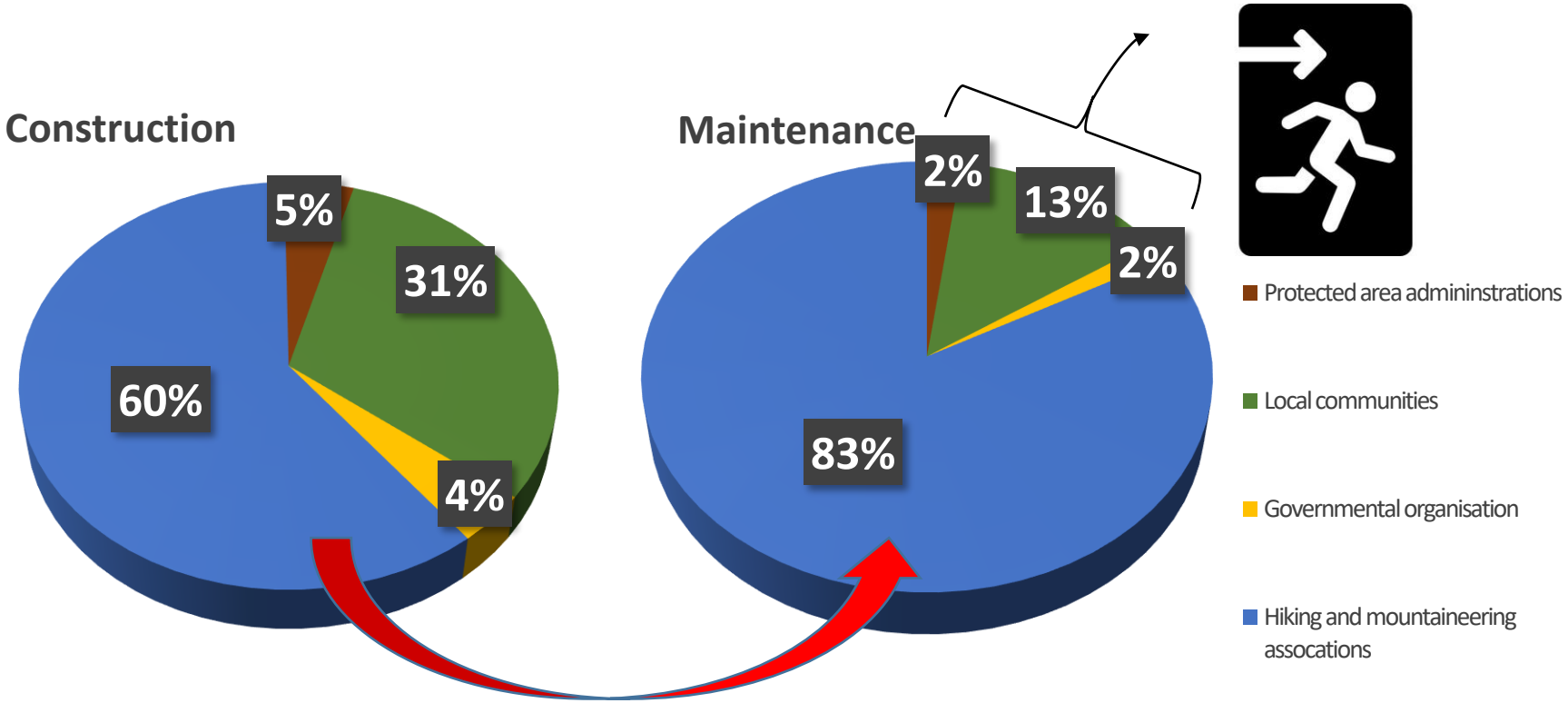
Constructing and maintaining entities of trails



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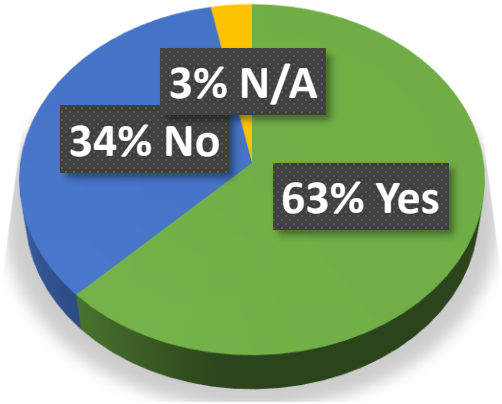
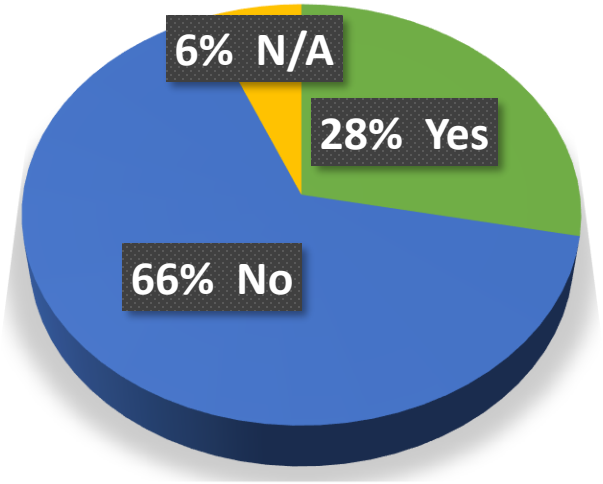
Special types of trails

Are there approach-trails to rock climbing areas within your trail network?



Do you have via ferratas within your trail network?



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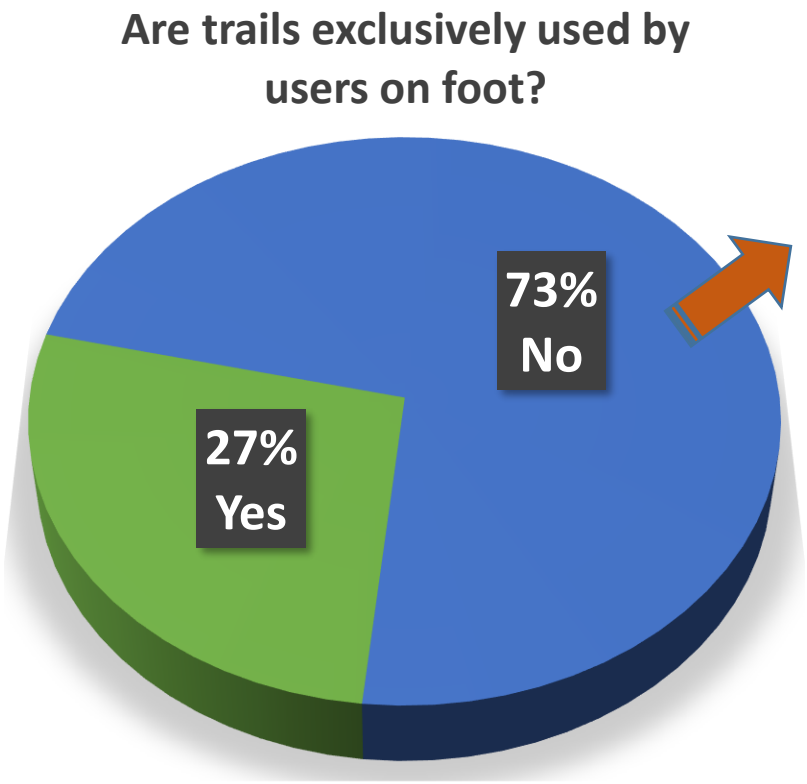
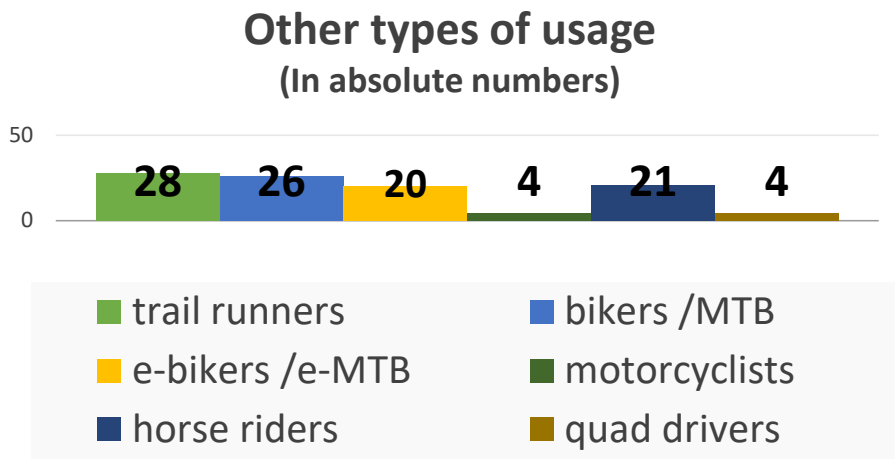
Trail usage





Source: Andreas Aschaber, 2022

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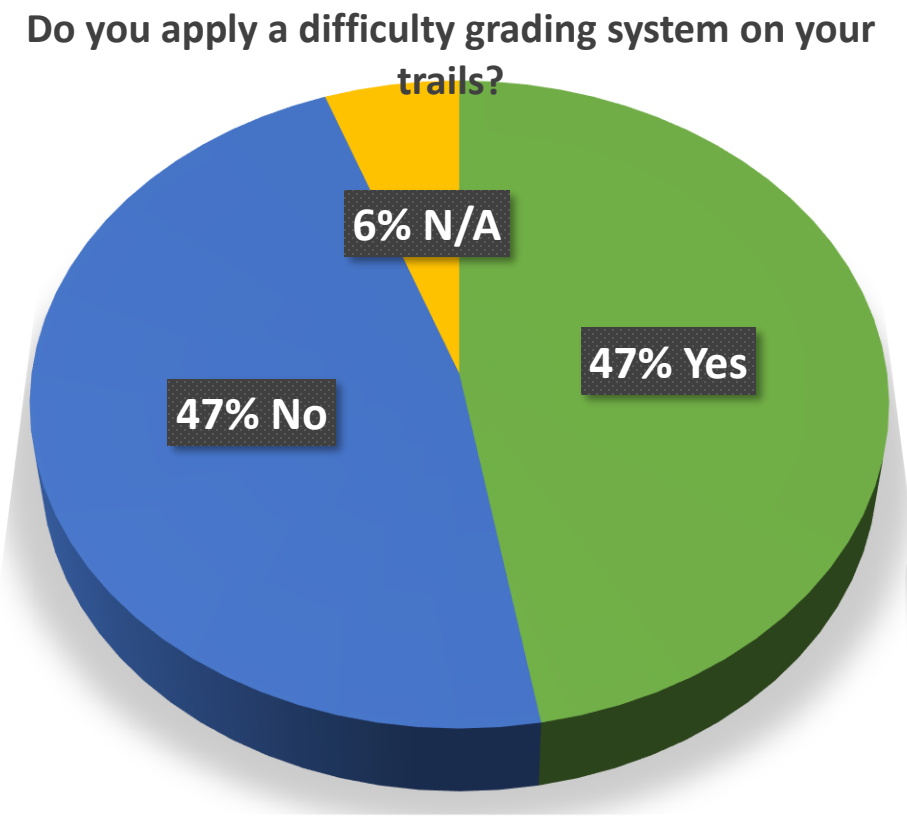
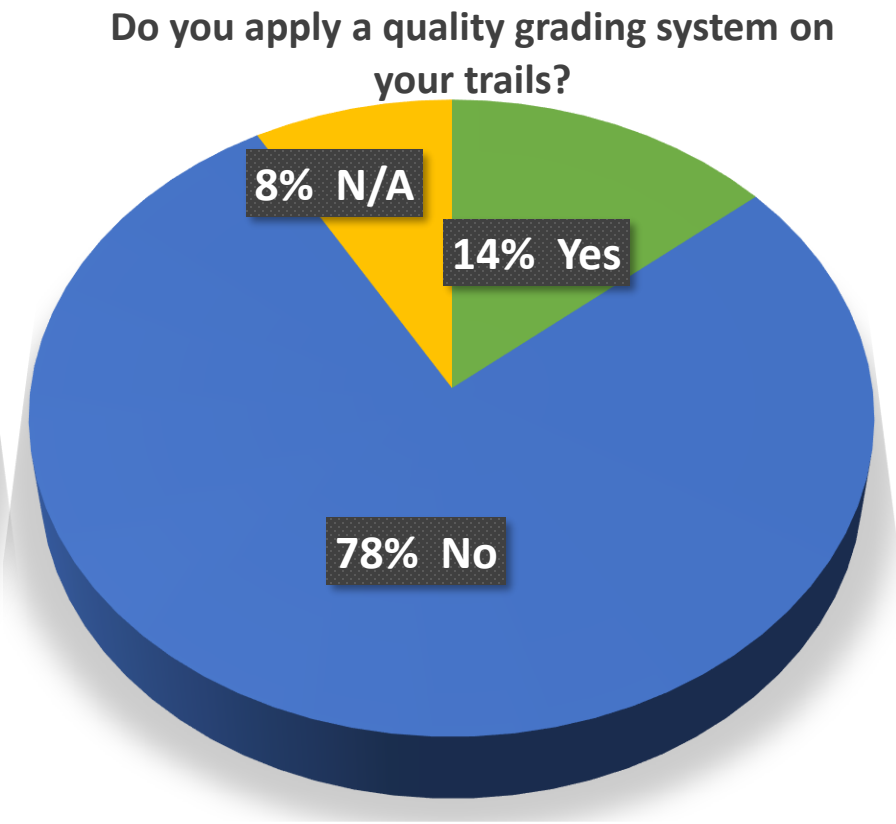
Grading





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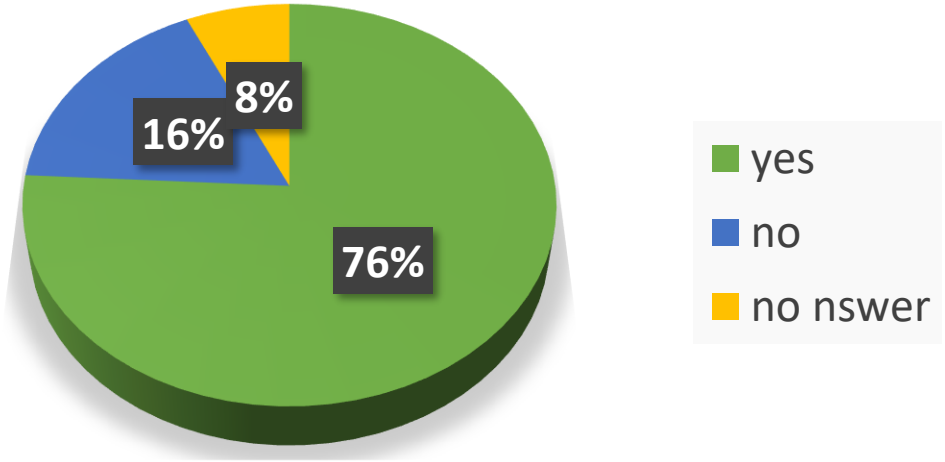
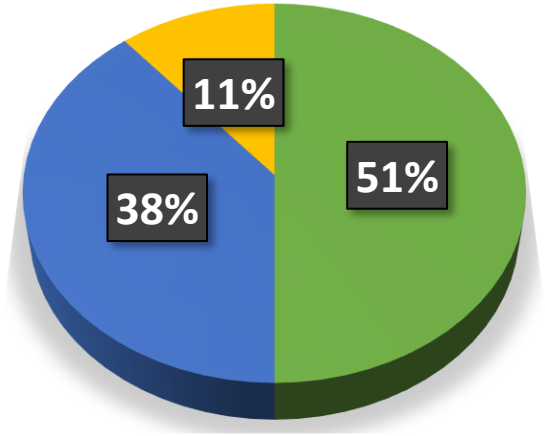
Access and specification

Are the trails in your network allowed to run on any area? (entry right)



Are the trail keepers clearly specified?



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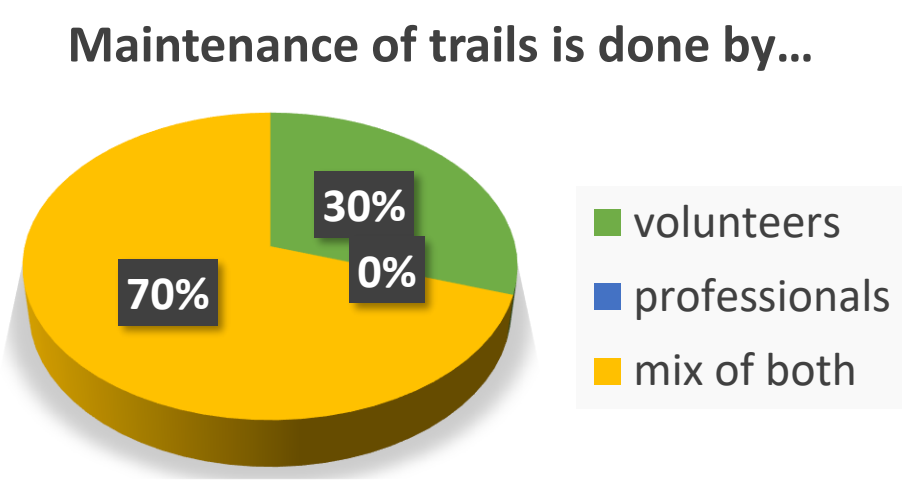
Maintenance cost

Average maintenances costs of trails per kilometer/a		
Mountain trails	Low mountain trials	Lowland trails
504,00 €	380,00 €	261,00 €



Source: ÖAV, 2022

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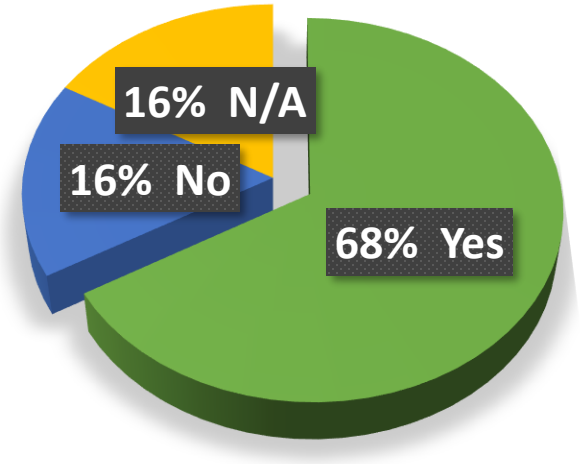
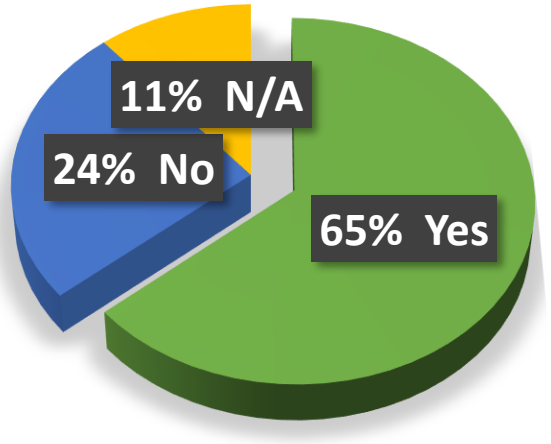
Digital Trail data base

Do you have a digital trail database?



Do hikers have free access to the digital trail database?



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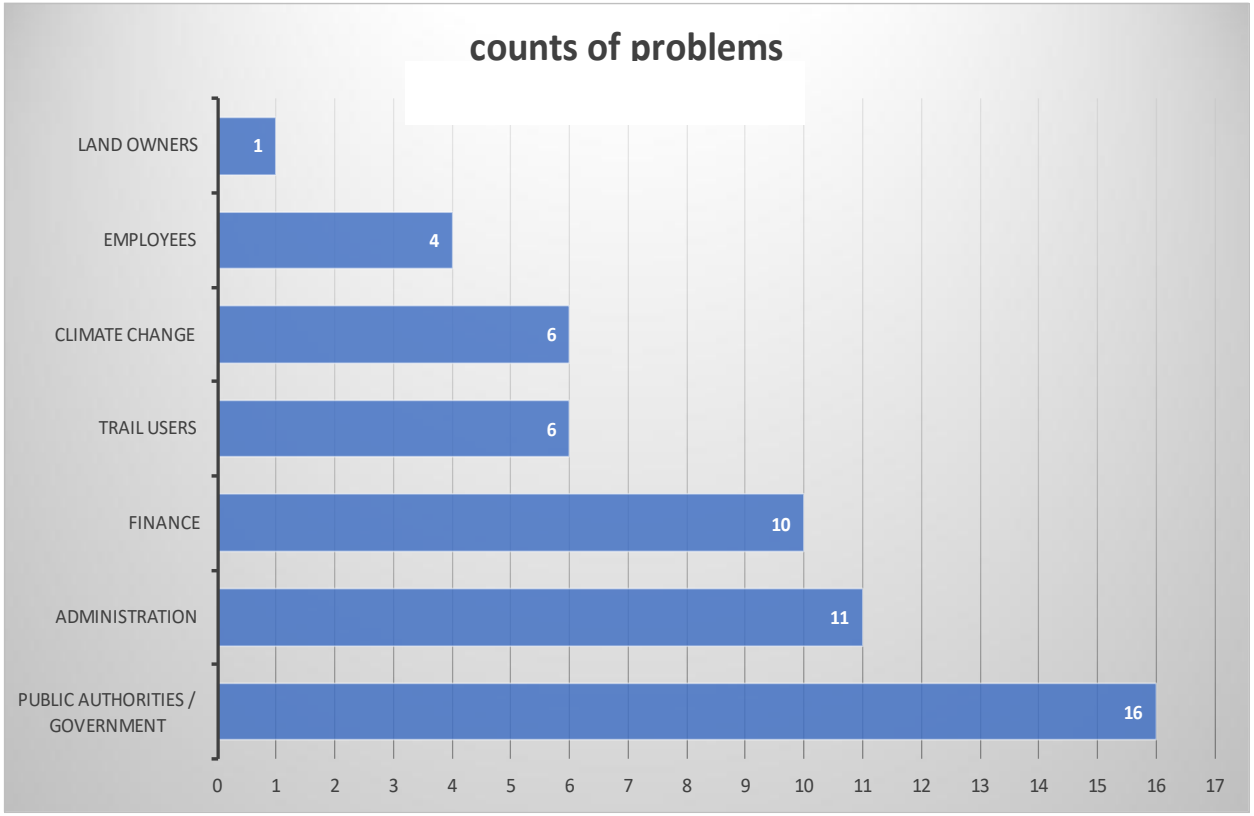
Mayor Problems (absolute numbers)



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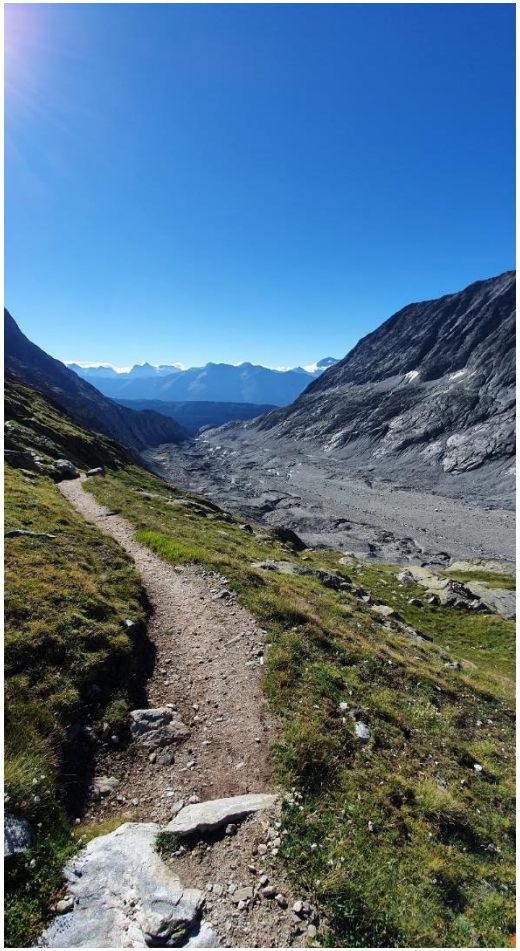
Conclusions

- Hiking trails are taken for granted
- Increased visitor pressure
- Trails offer the chance of visitor guidance → nature protection
- The majority of the paths can be used free of charge
- Trails are always physically marked with waymarks and signposts
- Difficulty grading and quality differs
- There are no regulations on
  - who is allowed to mark trails
  - how they are to be maintained
  - who is liable for damage while using them
- Trails are built in an uncoordinated way by all kinds of associations
- There is almost no trail register in which all trails are listed with their basic data
- NGOs lack of support from the governments legally and financially
- Lack of national trail management strategy and training



Source: Andreas Aschaber, 2021

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Our European trails bring us everywhere

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Walking, hiking and mountain trails
EUMA and ERA recommendations

Vision

- to promote walking, hiking, and mountaineering as important part of outdoor sports and eco-tourism,
- to achieve freedom of access to walking, hiking and mountain trails in a responsible manner in all Europe,
- to include walking, hiking, and mountaineering in European Union priorities as an important factor of a good quality of life,
- to raise awareness of the EU that walking, hiking and mountain trails are important supporting infrastructure for different kinds of outdoor sports and eco-tourism,
- to raise awareness of the importance of a wide network of walking, hiking and mountain trails across Europe, proper maintenance, and appropriate promotion for use of this infrastructure in a responsible manner.

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Walking, hiking and mountain trails
EUMA and ERA recommendations

Recommendations

- Trails are of public interest for the purpose of walking, hiking, running, or climbing.
- Users should have free access in a responsible manner (only restrictions regarding nature protection or for safety reasons could apply).
- Trails should be visible and clearly recognisable in the terrain and physically marked and signposted.

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Walking, hiking and mountain trails
EUMA and ERA recommendations

Recommendations

- Trails should exclusively serve for users on foot except where use by others is explicitly allowed, in that case, users on foot have priority.
- Trails (especially starting points) should be connected to the public transport system where possible.
- Trails should avoid sealed roads which should not exceed 20% and put a focus on a recreational/sport value.
- Other organisations should use walking, hiking and mountain trails for their purposes only with permission of the trail keeper and/or responsible institution.

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Walking, hiking and mountain trails
EUMA and ERA recommendations

- The National or regional governments should
  - define trail keepers and a responsible institution on national or regional level,
  - arrange co-financing of costs of the creation of new trails and costs of regular maintenance of existing trails by public funding,
  - define exemption of liability for the landowners and trail keepers on national/regional level when users hurt themselves by using trails,

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Walking, hiking and mountain trails
EUMA and ERA recommendations

- recognise trails as an important infrastructure for outdoor sports, nature protection, and eco-tourism,
- promote how to increase the self-responsibility of trail users.

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Walking, hiking and mountain trails
EUMA and ERA recommendations

- The responsible national institution should
  - align trails with the local, regional, and national legislation,
  - define standards or recommendations on national level,
  - maintain a digital trail database,
  - organise meetings, conferences, or trainings for trail keeping experts at least once per year,
  - promote how to increase the self-responsibility of trail users.

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Walking, hiking and mountain trails
EUMA and ERA recommendations

- Trail keepers should
  - inspect the condition of trails and waymarking at least once per year (if possible, in spring or early summer),
  - maintain trails and waymarking when the need is indicated by inspection,
  - present a report at least once per year to the responsible institutions,
  - promote how to increase the self-responsibility of trail users.

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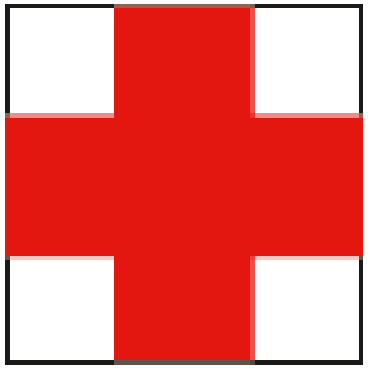
Waymarking book



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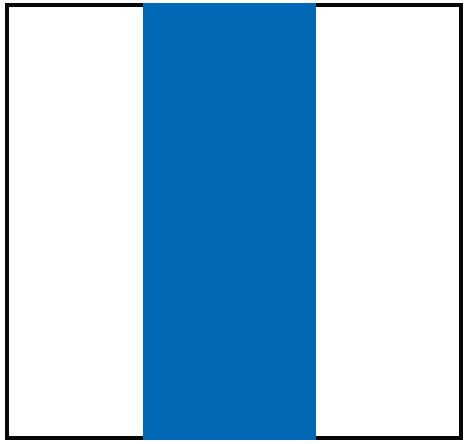
Waymarking book



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Waymarking book

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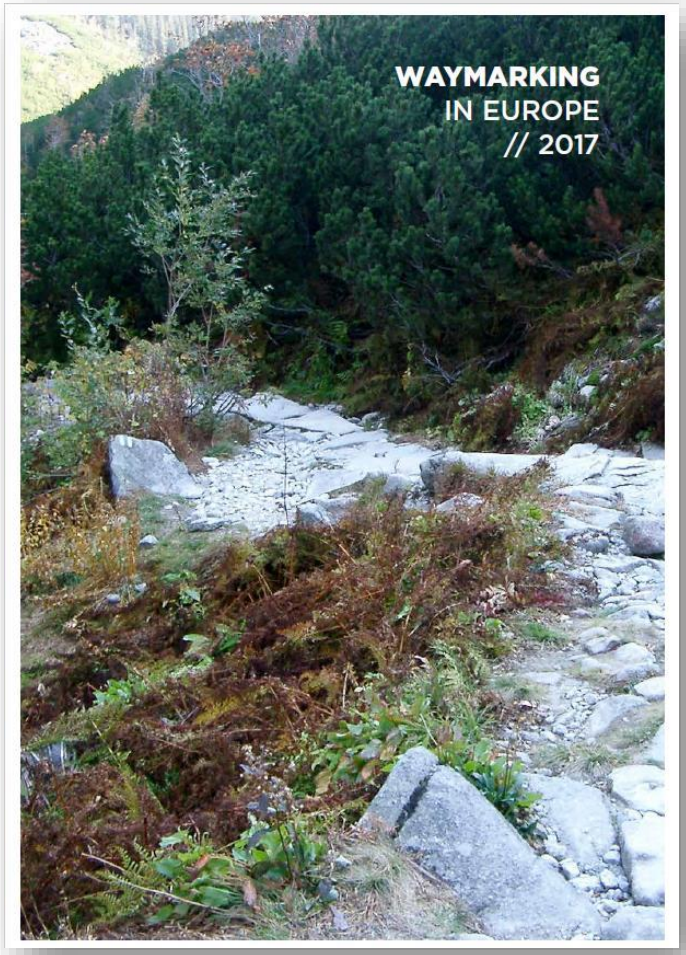

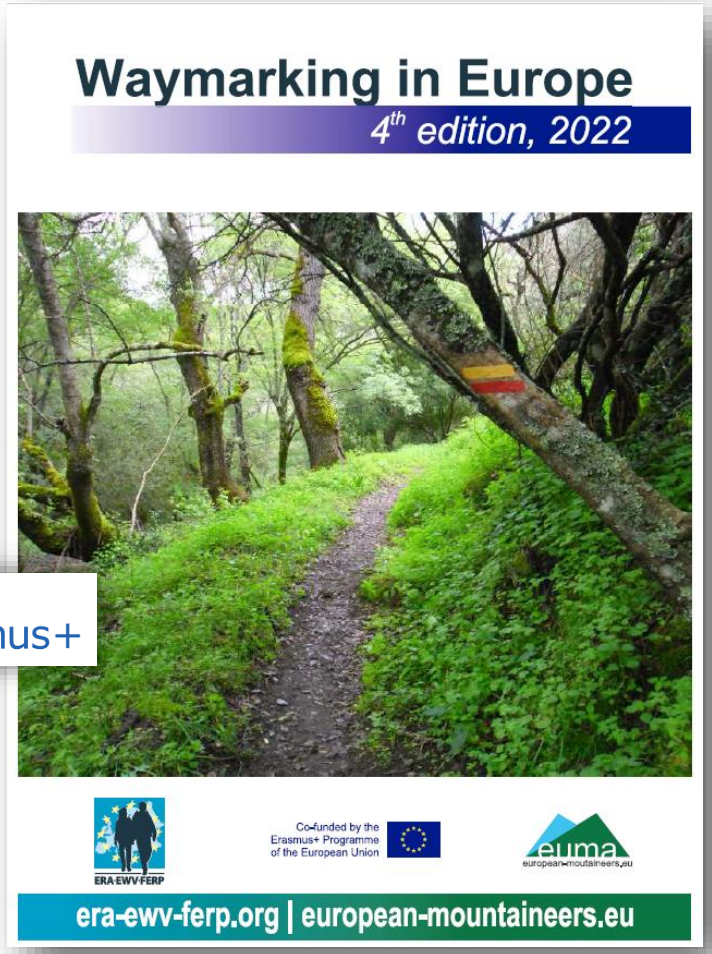

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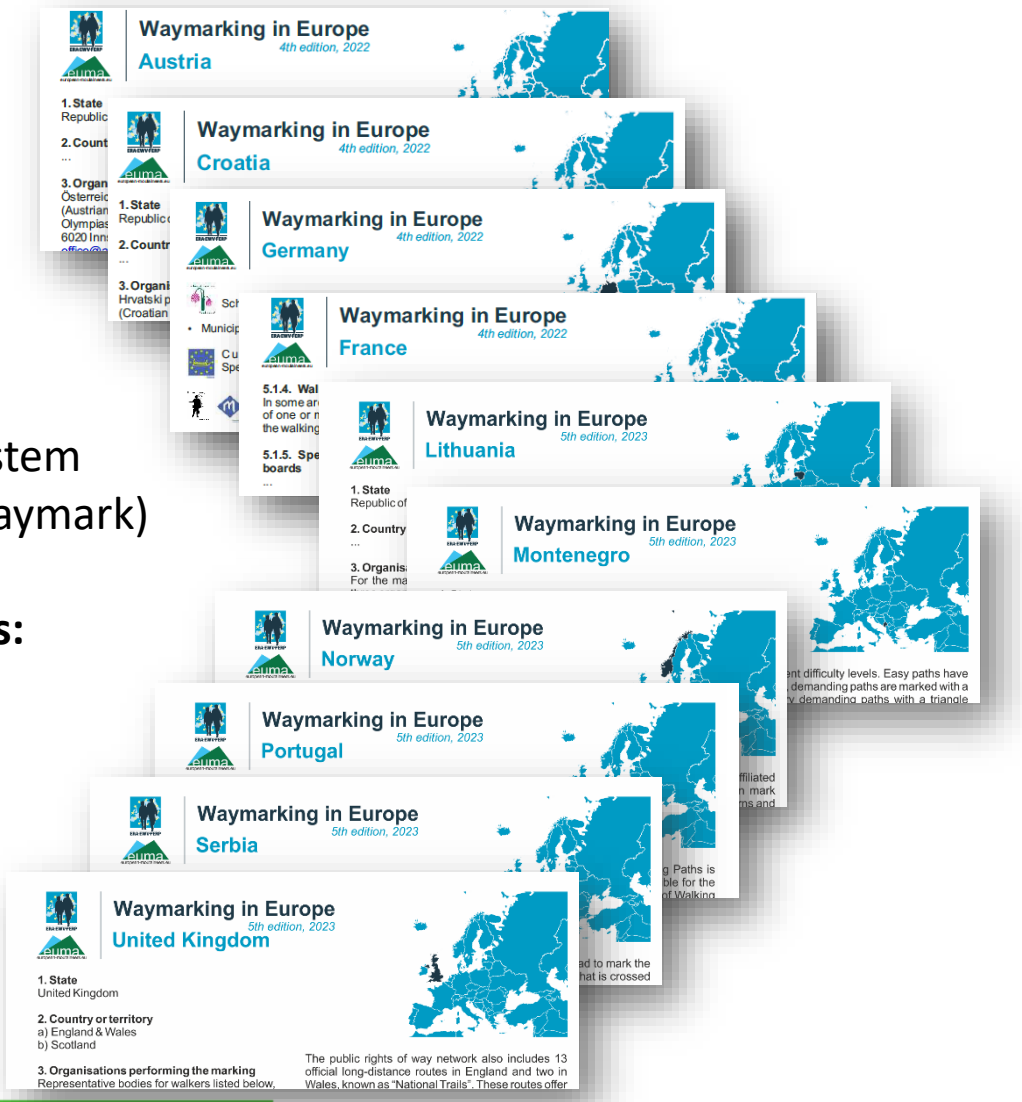
Collected:

34 countries (EUMA & ERA members)

No information from:
Malta, Ireland
Russia doesn't have any waymarking system
(only some local institutions might to waymark)

Countries out of our sphere of activities:

- Finland (included the version 2017)
- Belarus
- Iceland
- Moldavia
- Ukraine



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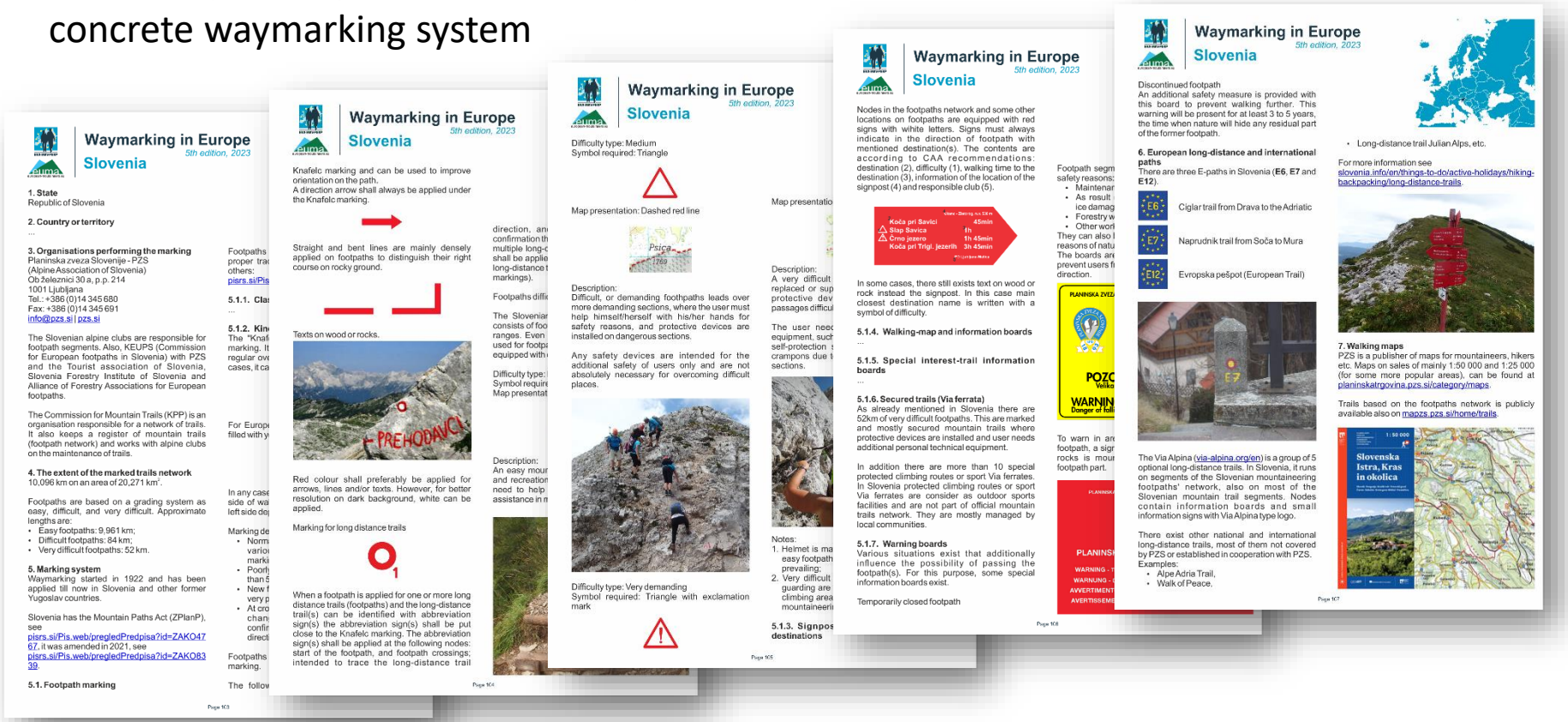
- This book **is a collection** of information from different countries
- It should give **no preferences** to any concrete waymarking system



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Waymarking systems – 5 groups:

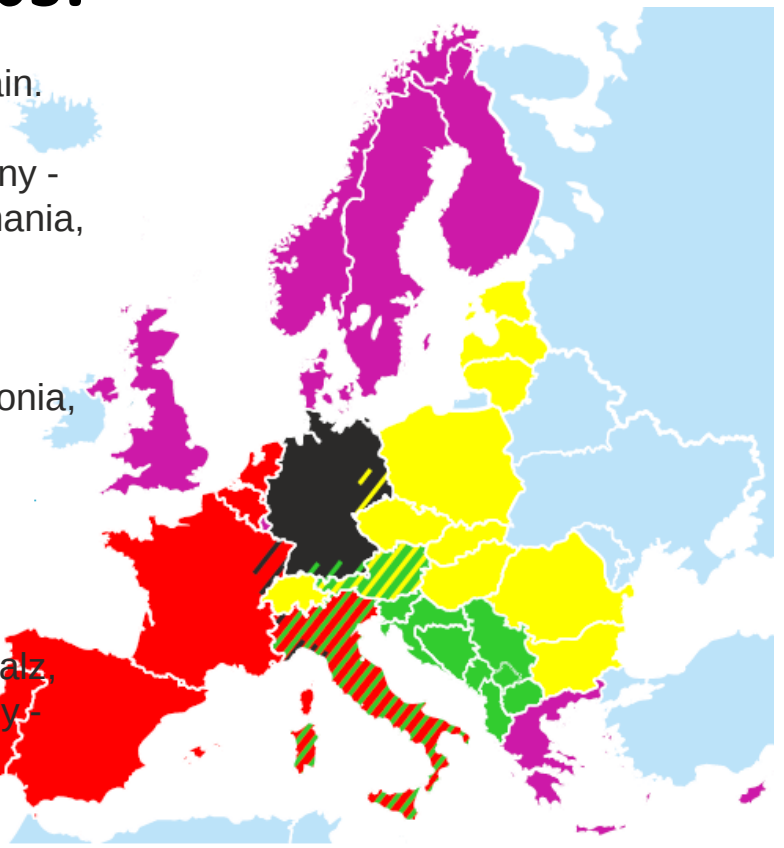
Red Area: Belgium, France, Italy, Netherlands, Portugal and Spain.

Yellow Area: Austria, Bulgaria, Czech Republic, Estonia, Germany - Sachsen, Hungary, Latvia, Liechtenstein, Lithuania, Poland, Romania, Slovakia and Switzerland.

Green Area: Albania, Austria, Bosnia & Herzegovina, Croatia, Germany - East Alps Mountains, Italy, Montenegro, North Macedonia, Serbia and Slovenia.

Violet Area: Cyprus, Denmark, Finland, Greece, Luxembourg, Norway, Sweden and United Kingdom.

Black Area: France - Club Vosgien, Germany – Frankenwald, Pfalz, Schwäbischer Alb, Schwarzwald, Spessart; Italy - Liguria and Italy - Valle
d'Aosta, Latvia.



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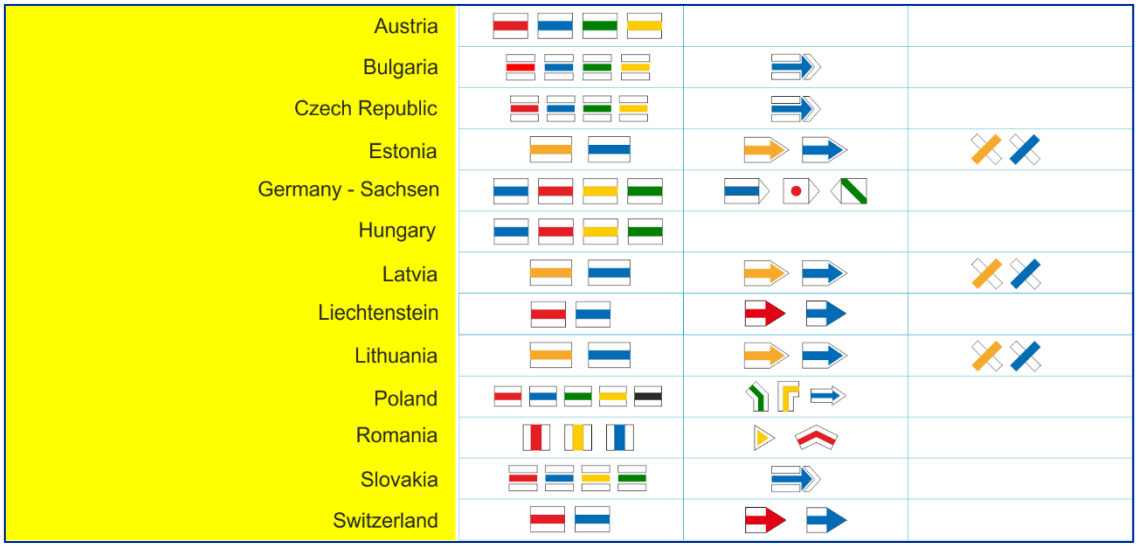

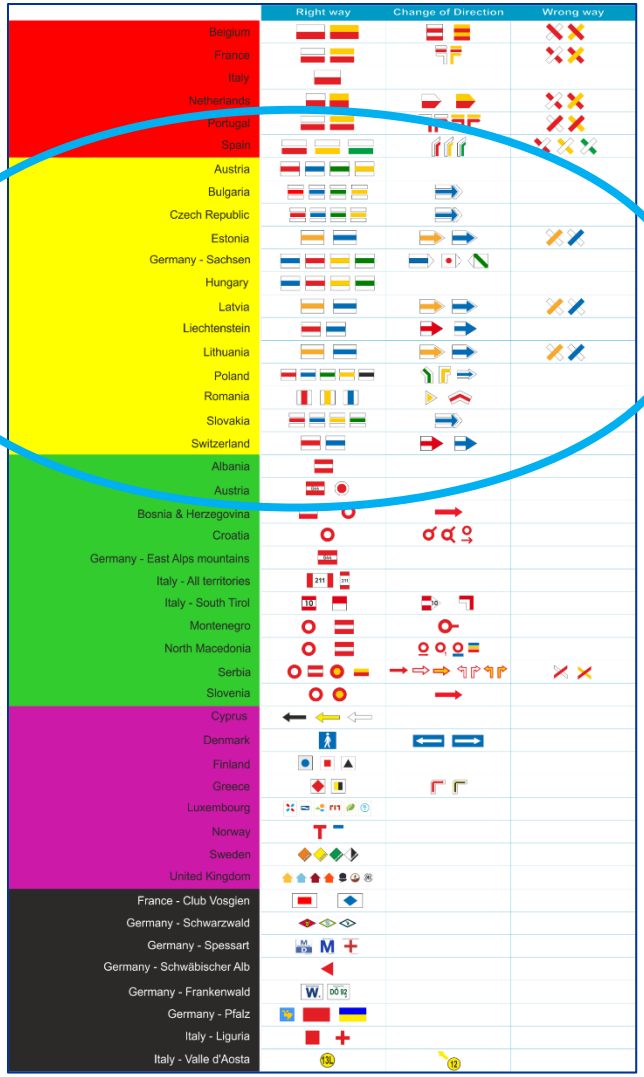

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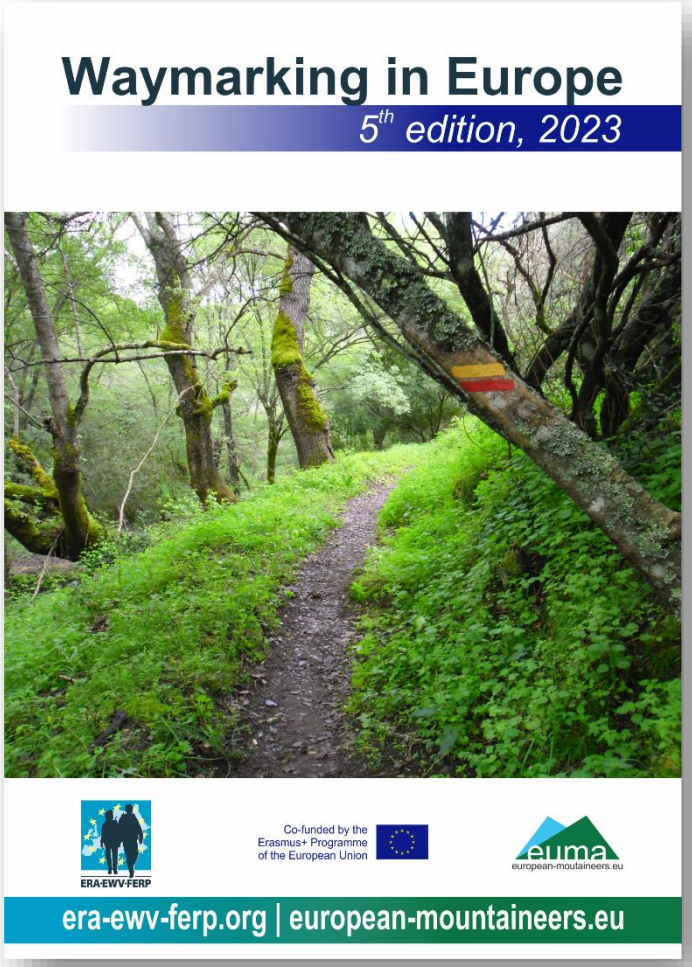
Main remarks:

- Distance in km x hours (depending on the altitude level)
- Signposts: on top the nearest point
- In majority keeping the General principles of waymarking
- From very simple system to very sophisticated systems – all are working
- Middle/eastern Europe – waymarking systems implemented for more then 100 years, the oldest are over 150 years in use



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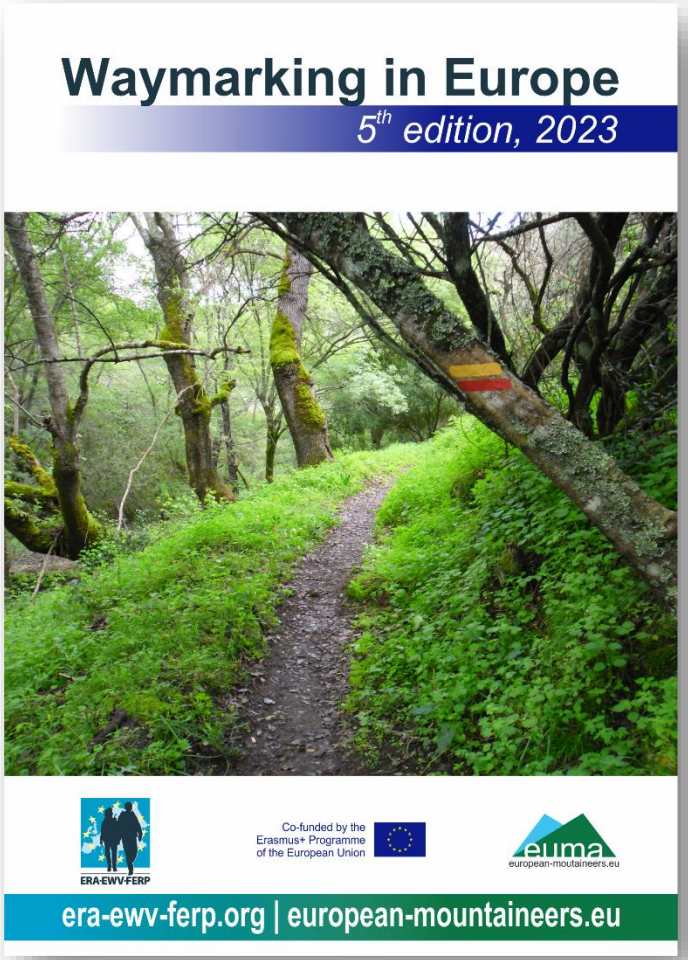
Available:

- Publication of 4th edition on the ERA website
- Publication by countries on the ERA website
- Publication of 4th edition on the EUMA website

5th Edition:

Part on the new data base

- E-book for the national libraries
- E-book for the ERA and EUMA member organisations
- Document for other outdoor associations (ENOS…)



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Recommendation for maintaining hiking, walking and mountaineering trails

Focus on some Key Aspects of the process

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Background

Organizations affiliated with ERA and EUMA (**MOs**) often maintain a network of trails. This maintenance can generally be distinguished into ordinary (periodic) and extraordinary maintenance, e.g., for the improvement of infrastructure on the trails or to deal with damage caused by atmospheric or catastrophic events.

The work of the team has produced an extended document and an extract from it, **the basis** of which it is my task to present to you today.

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Document Basis

MOs carry out their activities in different legislative contexts. They should promote, in their own country, **general principles** that are useful to the world of hiking.

The activity of trail maintenance has **general requirements** that must be understood in order to establish an effective and efficient organizational process.

Procedures must be used in maintenance activities that develop **measurable activities**, which allow the determination of the budget necessary for their implementation, in the present and in the future.

The network of trails can be an important asset for the development of a sustainable tourism.
For this reason, its development and **maintenance should be financed by the institutions** like any other economic asset.

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Top 8 General Principles 1/2

1. The right of **free access to natural habitats** should be established and guaranteed

2. **A specific regulation**, should be formulated concerning the design, use, maintenance, and management of trails, **preferably local/state law**

3. A **suitable commission for the approval of new trails**, or any organized nature path must be **clearly identified**.

4. **Public and 'official' repositories** for storing the technical data of the trail network must be set up, with procedures that ensure that **data is up to date**

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Top 8 General Principles 2/2

5. The **rules for allocating maintenance funds** must be defined according to **precise spending rationales**, (e.g. hourly and travel reimbursements, fixed quotas per km etc.)

6. a **budget** for trail maintenance **should be publicly funded.**

7. **Out-of-pocket expenses** for the purchase of materials should be **financed separately**.

8. The **organizational structure** of personnel engaged in trail maintenance should be **clearly defined**

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The Organizational Process 1/3

Generally, the association/organization (body) that maintains the trails copes with typical organizational **processes** that lead to the identification of certain **roles** and consequently the typical expenses of the activity, to be distinguished between **current/recurring and extraordinary expenses.**

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The Organizational Process 2/3

Key activities affiliated with trail maintenance:

1. The organization proposes itself as the **maintainer of the network of trails** to receive an **explicit mandate** which may be exclusive or shared with other associations.
2. The authority analyses and identifies its scope of operations, liaising with any other parties with whom it shares maintenance activities. At this stage some **tools** are established, for example a land register, preferably a computerized one containing:
   a) **Personnel database**
   b) **Material and instrumental goods** available to local maintenance contacts
   c) **Technical and functional documentation** of the trails, including **periodic reports** based on the annual activity reporting document to the client.

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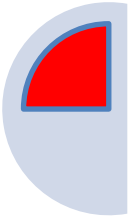
The Organizational Process 3/3



Authority

- Identify the Scope
- Identify the mantainers
- Establish The doumentation Repository and Land Register
- Give Explicit mandate and Shares Information

MOs

- Propose themselves as mantainers
- Receive Explicit Mandate alone or with Others
- Establish the Local database
- Establish the internal process and maintenance Procedure
- Establesh and calcuates economic indicators

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Tools and Documents Used in the Process 1/2

Cadaster of Trails

It is the principal database, containing, all the trails that make up the network. For each one, useful technical data and, in particular, *the gpx track* and *georeferencing* of the *signposts* and *markers* are available.

Master Database

It contains the master and contact data of all *personnel involved* in the maintenance activity as well as the *stakeholders* of the activity.

Accounting Program

This is the program in which all *costs* related to the administration and maintenance activities of the organization are *managed and documented*.

Warehouse management program

This is the program in which the *loading and unloading of materials* necessary for the organization's activities, in particular trail maintenance activities, is managed.

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Tools and Documents Used in the Process 2/2

Work Protocols

Individual maintenance activities are governed by certain protocols that provide a mode of engagement (usually through *work orders*) and a mode of *activity reporting* (usually through *work reports*)

Work Order

Individual/team order containing the *maintenance task* to be done, typically issued by the *Central* or the *Area Maintenance Manager*

Work Report

For each maintenance activity, the individual or the team of territorial contact persons, report on the *activity carried out*, including the *condition of the trail*, the travel or housing *costs incurred,* and the *hours of work* required to complete the activity.

Annual report for the client

This report summarizes all the activities carried out during the year, specifying the *costs incurred* and any *extraordinary maintenance* to be carried out on a project basis.

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Roles Acted in the Process 1/2

Central Maintenance Manager

He is the reference figure for the entire waymarking and maintenance process and is responsible for drawing up the ordinary plan and any extraordinary maintenance plans

Area Maintenance Manager

In extended maintenance contexts, in addition to the *Central Maintenance Manager,* it may be useful to have Area Maintenance Managers to co-ordinate *Territorial Contacts.*

Territorial contacts

These are the people on the ground who are responsible for marking and maintaining the trails, receiving the necessary materials, and planning the activities which they will carry out expertly, *organizing themselves* into *maintenance teams*.

Responsible for the material goods warehouse

It oversees storing materials provided by the commissioning body, tools and other material goods that are needed by the maintenance teams.

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Roles Acted in the Process 2/2

Administrative and accounting support figures.

They are responsible for the proper maintenance of *accounting records*, which are useful for producing *the year-end profit and loss statement.* They support all others in carrying out activities within their own competencies.

Information technology specialists

The cadaster of trails, the administrative and accounting activities, have an important impact in terms of the Information Technology needed, it is therefore necessary to have one or more support figures who can take care of the *IT Park* available to the association in terms of *software licenses* and *hardware devices*. They report functionally to the Central Maintenance Manager.

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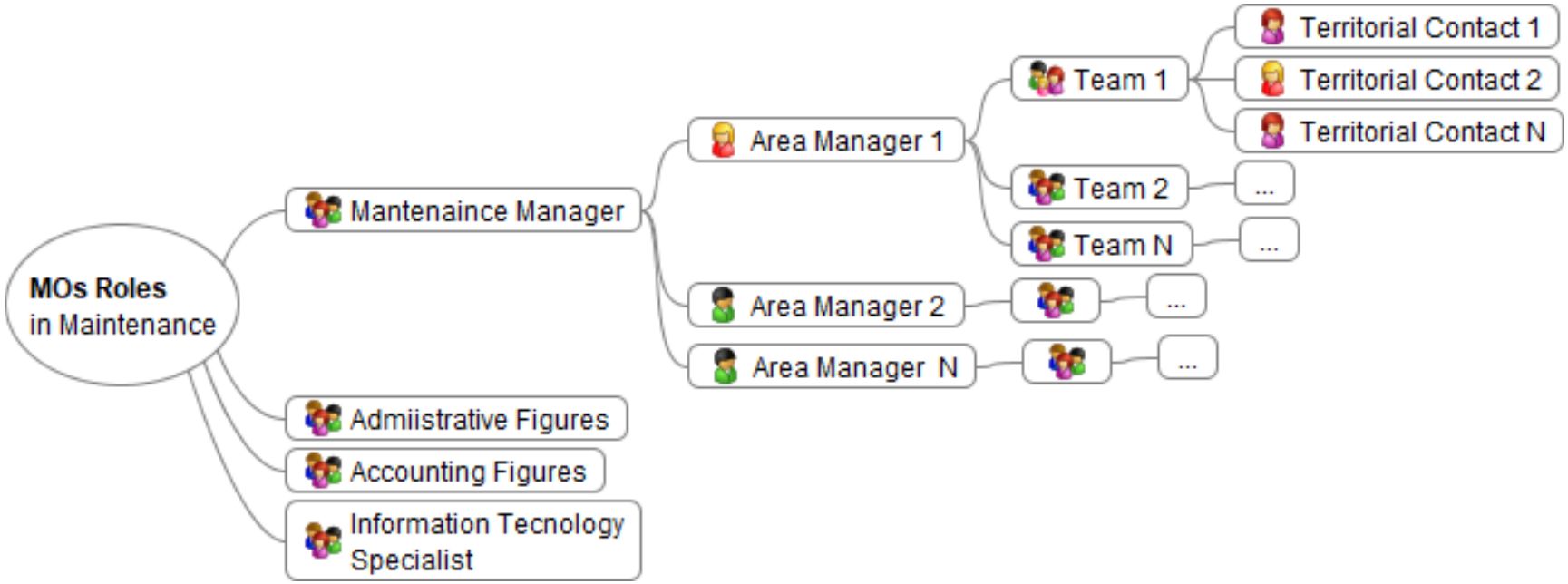
Roles Acted in the Process 2/2



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Types of Costs and Budgeting 1/2

Assuming that Material and Tools for maintenance are already available, three typical costs can be identified in a typical maintenance activity, those are:

- the **Effort Cost**,
- the **Travel Cost**,
- the **Accommodation cost.**

If the costs incurred for activities are properly documented, recorded and archived, it is possible to construct **expenditure rationale/expenditure indicators**, which can be used to monitor the use of the budget but also to **forecast requirements** in future years.

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Types of Costs and Budgeting 2/2

The subject of rationales/indicators is very broad; below, by way of example, are just a few possible indicators, certainly not exhaustive:

- It is useful to calculate a **Partial Cost per Km** indicator, useful to get a rough estimate of the cost of maintenance

- Having the total sum of the costs incurred, both by the maintenance teams and the organization's logistics departments, it is possible to calculate the **Total Cost per Km** indicator, usufull to estimate the financial requirements for the management of a new section of trail, based on the average cost per Km.

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Example of indicator calculation 1/3

In the cost analysis below, we consider the maintenance of a trail **35 km** long **(Trail Length)**, **100 km** away from the maintenance team's headquarters (**Trail Distance**) requiring **15 hours** of total work (**Effort**), with the need to eat a packed lunch and stay overnight in a hotel (**Accommodation Cost**).

1. All work done can be measured in hours, the sum of the hours taken to complete a task is Effort. To obtain an economic value it is necessary to establish an **Hourly Wage**, which multiplied by the Effort determines a first cost of the same, for example if the hours worked are **15h** and the cost per hour is **25€** we will have:
   15h*25,00€ = 375,00€ (Effort Cost)

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Example of indicator calculation 2/3

2. In fact, to carry out maintenance activities it is often necessary to travel to the entrance of the trail by means of transport, normally a reimbursement per km is established, for example **0.35€/Km**, so if the total km travelled are **100km**, round trip, we will have **100*0.35€ = 35.00€ (Travel Cost).**

3. As the maintenance activity is lengthy, the staff incurs expenses for food and accommodation; these will have to be considered in addition to the previous costs. Let us assume, for example, that we have **8.00€** for a packed lunch and **45.00€** for half-board accommodation. The live cost that will be reimbursed will then be **8.00€ + 45.00€ = 53.00€ (Accommodation Cost).**

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Example of indicator calculation 2/2

At this point we are able to calculate:

- **Effort Cost + Travel Cost + Accommodation Cost = Total Activity Cost**
  e.g. 375.00€+35.00€+53.00€ = 463.00€ (Total Activity Cost)

- **Total Activity Cost / Trail Distance = Partial Cost per Km**
  e.g. 463.00€ / 35 Km = 13.22€ which rounded up to the next whole number becomes 14.00€ (Partial Cost per Km)

- **SUM (Total Activity Cost) / SUM (Trail Length) = Total Cost per KM.**
  Assuming that the Total Cost per KM is 30.00€ per Km, if we were asked to estimate the maintenance cost for a 1000Km long network of trails we would have 1000km*30.00€ = 30,000.00€.

Of course, further indicators can be constructed that also take into account the costs of administrative and support staff.

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Thank you for your attention

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Leaflet for responsible use of hiking, walking and mountaineering trails

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Leaflet for responsible use of hiking, walking and mountaineering trails

1 PREPARE YOURSELF BEFORE EACH WALKING ACTIVITY

Check maps, trail difficulties and conditions, weather & daylight conditions

2 USE ONLY PROPERLY MARKED TRAILS

Use only properly marked trails with proper signposts and signs, respecting current trail conditions.

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3 NEVER LEAVE WASTE BEHIND

Never leave waste in nature; carry it with you to the trash bin.

4 RESPECT AND PROTECT THE NATURE

Respect and protect flora and fauna of the trail environment, you are a guest in the animals home.

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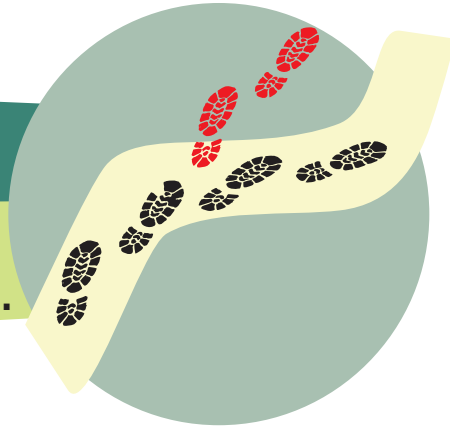
5 WALK IN THE MIDDLE OF THE MARKED TRAIL

Walk in the middle of the marked trail, and avoid walking on its edges for your security and the trail protection.

6 NEVER TAKE SHORTCUTS

Never take shortcuts out of the trail.
It can be very dangerous for you and can cause erosion.



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7 REPORT DAMAGES ON THE TRAIL

If you notice damages on the trail please inform the responsible organization!

8 LANDOWNERS

Respect the landowners, remember that you are a guest on someone's property.

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9 PERSONAL SIGNS/SCRATCHING IS FORBIDDEN

Leaving personal signs, graffiti, stickers or wood carvings on the trail is strictly forbidden.

10 CAMPING

Be shure to camp and make fire only where it is permitted.

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Strategy and proposals for future activities

Proposals for EUMA&ERA for future outcomes:

- EU founds for trail maintenance
- EU resolution regarding free access to trails on your own risk and in a responsible manner
- Monitoring the climate changes and their effects on trails

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Strategy and proposals for future activities

- Trail conference on EU level (every second year)
- Train the trainers of trail keepers (every second year)
- European walking days as part of the European week of sport
- Modifying the on-line data base for trails and the Waymarking brochure