

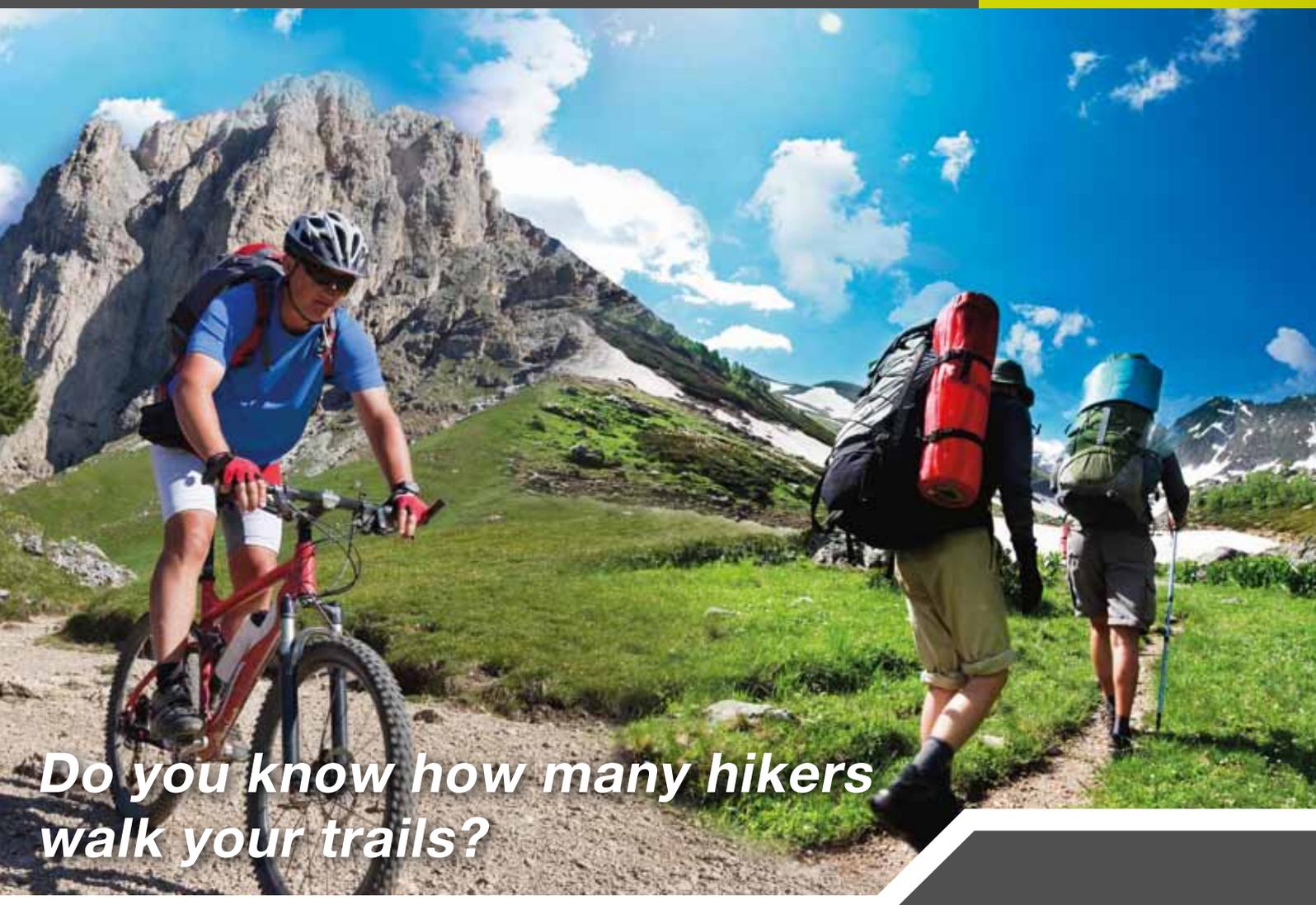


Natural
Areas



eco
counter®

COUNTING PEOPLE, ANALYSING DATA



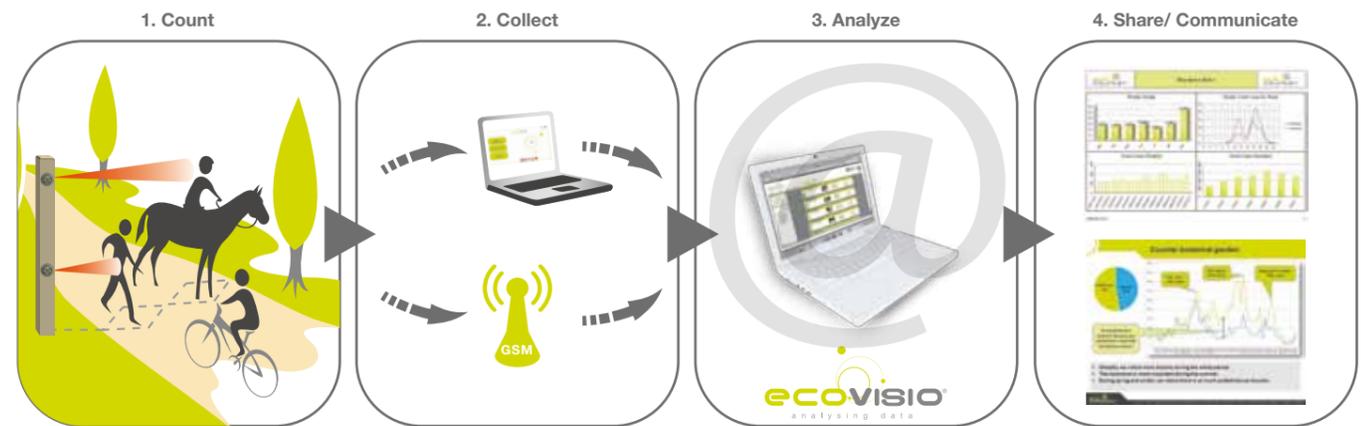
*Do you know how many hikers
walk your trails?*

Do you know how many hikers walk your trails?

Eco-Counter can help you build a visitor monitoring system.

Comprehensive counting and data analysis solutions

- ⊖ Unmatched expertise in the counting of cyclists and pedestrians in urban and natural environments since 1998
- ⊖ More than 5,000 counters installed in 35 countries
- ⊖ Service offices in Lannion, France, and Montreal, Canada
- ⊖ A worldwide network of distributors providing local customer support
- ⊖ A Research and Development team with a strong culture of innovation
- ⊖ High-quality technological products that are designed, manufactured and tested in France
- ⊖ User-friendly software for analyzing and comparing data as well as generating charts, reports and more



Why count?



► Observe

Understand usage patterns in order to improve visitor experience

- ⊖ How do visitors reach the amenity?
- ⊖ How many visitors hike your trails?
- ⊖ What are the peak visitation periods (hours, days, weeks, etc.)?
- ⊖ What is the impact of the weather on visitation?



► Understand

Evaluate trends over time in order to guide future investments

- ⊖ Which trails are most popular?
- ⊖ Are trails well marked?
- ⊖ What is the impact of a new facility?

► Preserve

Restrict visitation levels during mating and nesting seasons

- ⊖ What is the impact of visitors on the flora and fauna?
- ⊖ Identify the load capacity of soil and anticipate erosion



► Communicate

- ⊖ Obtain accurate data on the economic benefits of adventure sports and ecotourism to back new investments.
- ⊖ Provide partners with regular reports on the visitation rates of the most representative sites.
- ⊖ Motivate field teams with detailed reports.



Acoustic Slab

• Invisible
• Waterproof
• Battery-powered

How it works

One or more **underground slabs** sensitive to **micro-variations in pressure** are used to detect footsteps. A timer system prevents overcounting if a person steps twice on the slab. For wide passages, the dimensions and spacing of the slabs can **count people walking alongside each other**, while maintaining an **accuracy of ± 5%**.

Features & Benefits

- Highly accurate counting of groups
- Detects direction of movement
- Completely undetectable
- Low maintenance



- 10-year battery life
- High-capacity memory (21 months)
- Waterproof (IP 68)



Before

Hidden from view

The Acoustic Slab sensor is specially designed to be completely undetectable once installed. Once buried, the Acoustic Slab sensor is completely hidden from view.



► Natural grounds

For hard-packed soil or soil susceptible to erosion, the slab can be delivered with a protective honeycomb overlay to stabilize the soil and prevent the slab from being uncovered.



► Artificial grounds

For surfaces covered with asphalt or paving blocks, specific solutions such as loose ground kits or floating slabs allow inconspicuous installation without sacrificing the sensor's accuracy.



After

The key points



► Large width and high accuracy

In the case of wide paths, the size of the slabs and the spacing between them make it possible to count several people at the same time while maintaining an accuracy of ±5%.



► Directional

With two rows of slabs, not only can the number of pedestrians be counted, but the direction they walk in can be measured as well.



► Robust and battery-powered

Specially designed for outdoor use, the sensor and logger are sealed to an IP68 rating against dust, mud and water.

The robust sensor withstands occasional overrun by small maintenance vehicles.

The system runs on a 10-year battery (Bluetooth™ mode) and can store up to 21 months of data (hourly records).

Specifications

- Weight: 4.5 kg (9.9 lbs)
- Dimensions : Length 50 cm (19.7")
Width 60 cm (23.6")
Thickness 1.6 cm (6.3")





Pyro electric Sensor

• Multi-purpose
• Invisible
• Waterproof
• Battery-powered

How it works

The **PYRO** sensor uses passive infrared (PIR) technology combined with a high-precision lens to detect changes in temperature when a person enters its range. Thanks to its extremely high sensitivity, the sensor can differentiate between people walking closely together and detect their direction of movement. Because the sensor is self-calibrating, it can be installed easily and reliably by non-technical users.

Features & Benefits

- Detects direction of movement
- Non-intrusive technology
- Low maintenance
- Range of up to 15 m (50 ft)
- 10-year battery life
- High-capacity memory (21 months)
- Dust and waterproof (IP 68)



Applications

A multi-purpose sensor for monitoring all types of adventure sports

The **PYRO** sensor is able to count many types of users:

- pedestrians
- cyclists (MTBs, racing cycles)
- horseback riders
- kayakers
- snowmobiles
- skiers, etc.



► Pedestrians and cyclists

The **PYRO** sensor is perfectly suited to trails shared by pedestrians and cyclists. All users, even fast-moving mountain bikes, are counted using a special algorithm.

◀ Horseback riders

When installed at a height of 2.7 m (8.9 ft) the Pyro sensor can be used to count horseback riders and thus identify which trails require priority pruning.



► Kayakers

The **PYRO** sensor can be installed along a river to count visitors or, as shown here (Müritz National Park, Germany), to measure the impact of canoe traffic on waterways used by migrating fish.



► Cross-country skiers, ski tourists, snowshoers, snowmobilers

From the Alps to the Arctic Circle, the Pyro sensor can be adjusted for any winter sport. The Pyro-Zoom can cover the entire width of cross-country skiing trails (Finland). It can also be used to evaluate the impact of off-trail skiing on mountain (the Pyrenees), measure the popularity of skiing trails (the Alps) or adjusted to detect fast-moving snowmobiles.

Installation

A sensor for any situation

The **PYRO** sensor has an IP 68 rating and is designed to blend in with its outdoor surroundings. Delivered with or without a housing, it can be concealed inside a dry stone wall or wooden post.



Embeddable



► Hidden in the environment

Lodged in the bark of a tree, the **PYRO** sensor blends in perfectly with the surrounding environment. The logger is installed inside a housing hidden in the ground.



► Mountable on any surface

The **PYRO** sensor can be mounted on any surface (backs of trail signs, inside existing wooden posts, inside trail markers, etc.) to hide it from view.

Inside a wooden post



► In an all-in-one post

Eco-Counter also manufactures all-in-one posts consisting of a sensor and counting system. This solution eliminates the need for a housing and is ideal for semi-permanent counting or rocky soil.



ZELT Inductive Loop

- Accurate
- Invisible
- Waterproof
- Battery-powered

Features

- Counts bicycles passing side by side or closely behind each other.
- ±5% accuracy in all situations.
- Can be used to manage conflicts of use on trails shared by pedestrians and cyclists.



Bicycle Counting

The **ZELT loop** accurately counts the number of bicycles on:

- MTB trails
- bikeways
- greenways

► Mountain bike

Several **ZELT** loops installed on MTB trails in Brittany allows the local authorities to know exactly how many mountain bikes are using the trails. This data is of huge importance to anticipate erosion and enhance the cyclists' safety.



► Promote ecotourism and adventure sports

Whether installed on greenway networks or MTB loops, counters are the first step in evaluating the economic impact of adventure sports.

Count data logged by **ZELT** electromagnetic loops are used in a number of departments in France to accurately and meaningfully assess the touristic, economic and social benefits of ecotourism.



Eco-MULTI

- Multi-user
- Waterproof
- Battery-powered

Features & Benefits

- A single logger that differentiates between various users
- Detects direction of movement
- Battery-powered (1 year min.)



Multi-User

- Differentiates between and separately logs different types of users: cyclists, pedestrians, horseback riders, cars, buses, etc.
- Compiles movements detected by each sensor .
- Analyzes results using a special algorithm.
- Separately logs each passing user.



► Pedestrians / Cyclists

Because pedestrians and mountain bikers often use shared greenways and paths for different purposes, it can be useful to distinguish between both types of users. **Eco-MULTI** counting systems can also be used to identify and manage conflicts of use between motor vehicles and modes of active transportation.



► Pedestrians / Cyclists / Horseback riders

In western France, an **Eco-MULTI** system is used to count and differentiate between pedestrians, cyclists and horseback riders. The counter records each type of user and the direction they are moving in. All three user categories are then analyzed on the **Eco-Visio** online software platform.



► Cars / Buses / Cyclists

By combining various types of sensors, buses can be differentiated from cars and bikes on shared roadways with very little traffic (access roads to landmarks) or at parking lot entrances, thus providing data on the number of visitors as well as their means of transportation.



EVALUATION OF THE IMPACTS OF TOURISM

France

A dozen slab counters have been installed along the 250 km (155 mi) Cathar Trail in the upper Aude Valley. The count data has been compared with data from:

- field surveys of visitors;
- surveys of local accommodation providers (campgrounds, mountain huts, cottages, hotels, etc.)
- telephone and mail surveys;
- panel discussions (academics, technicians, etc.)
- local tourism promoters (hiking guide sales, etc.).

Comparing this data with the count data logged by pedestrian, horse and MTB **Eco-Counters** has enabled the identification of the media, social, and economic impacts of the popularity of the Cathar Trail.



PROTECTION OF FLORA AND FAUNA

Norway

A project to close a mountain hut and a number of roads in order to protect the local wild reindeer population has been a subject of debate in an area of Northern Norway for several decades. To justify the project's viability, the Norwegian Institute for Nature Research (NINA) has installed **Eco-Counters** to compare the spatial and temporal distribution of visitors with the GPS positions of the wild reindeer.

What is the impact of strollers on the deer herds and what is the impact of human activity on a pristine natural environment? The study's results will be used to develop an environmentally friendly land-use policy for this region where nature is at the center of every decision.

MANAGEMENT OF VISITOR FLOWS

France

Two car counters and approximately ten slab counters were installed at strategic points (parking lots, dams, lakes and other points of interest) on Mount Saint-Victoire in southern France in 2002.

The quantitative data logged at these points was combined with a large-scale qualitative study in 2009. The study revealed, among other things, that the flows of visitors had shifted and that areas that initially had not often been frequented by visitors had a much higher chance of being accessed.

Measures were quickly taken to protect these areas from damage caused by the rising number of visitors. Signs and trail markers were also added to direct visitors along the right paths.



The table below will help you find the best device for your needs:

	MULTI	SLAB	PYRO	ZELT
Pedestrian trails		●	●	
MTB trails			●	●
Multi-use trails	●		●	●
Multi-user greenways	●		●	●
Horse trails	●		●	
Facility parking lots and access paths	●			
Canals, gorges or rivers (canoes)			●	
Ski slopes			●	
Snowshoe trails			●	
	MULTI	SLAB	PYRO	ZELT
Semi-Permanent (< 6 months)			●	●
Permanent (> 6 months)	●	●	●	●
User categorization	●			



- Online software
- User-friendly
- Reports in 10 seconds

Eco-Visio is specifically designed by Eco-Counter for compiling and analyzing pedestrian and cyclist data.

Eco-Visio: a dedicated data analysis platform

Online software accessible anywhere (cloud computing) for:

- Organizing and managing counting sites
- Collecting, analyzing and sharing data with various local, regional and even national users
- Print professional reports in a matter of seconds

Analyze count data

Edit instant or customized reports

Optimize the organisation of your counting sites

Manage access rights and import/export data

Display comprehensive information about counting sites: description, pictures and maps.



Eco-Visio: management and centralization of multi-site data

If you manage natural areas and are looking to set up a database containing data from local, regional or national sites, **Eco-Visio** can help you create, manage and scale this database.

For example, **Eco-Visio** is used in the UK to compile data from more than 2,000 counters used by 130 local authorities as part of the country's first-ever project for large-scale management of an active transportation database.

Build a visitor monitoring system

A monitoring system provides a means of centralizing data from manual and automatic counts as well as from other sources. **Eco-Visio** is the tool for compiling and analyzing this data.



► Centralize data

- From up to several thousand counting points
- In various data formats
- From a number of sites
- Collected by different organizations

► Share and manage data

- Manage the access rights of different partners, create custom counting point views
- Simple data import
- Identify, modify and delete unusual data

► Communicate and analyze

- Print regular reports for all of your partners
- Make data available to all of your colleagues (scientific department, GIS, etc.).

Advantages

- Compare data from different counting points (parking lots, orientation tables, main and side trails, etc.).
- Integrate external data (number of nights spent in mountain huts, number of visitors at tourist information offices).
- Check the effectiveness of signs and markers and gauge the popularity of new fixtures and amenities.
- Measure visitor attendance in protected areas during nesting seasons.
- Anticipate erosion.
- Measure the effectiveness of ad campaigns or on-site events.
- Build a visitor attendance forecast calendar, etc.



Reports and Communication materials

Eco-Counter helps you analyze data more effectively and generate analysis reports tailored to your needs. These custom reports are created by a specific department specialized in analyzing and leveraging count data.

Create your custom analysis reports in just 4 stages.

Our teams can guide you through every stage of your project. The members of our Service and Analysis Department are perfectly qualified to help you find the best solution for your needs.

1 Determination of your expectations

- ☞ Phone interview;
- ☞ Definition of objectives;
- ☞ Proposal of a custom report.

2 Data tracking

- ☞ Data maintenance;
- ☞ Management of alerts;
- ☞ Monitoring and validation.

3 Database assessment

- ☞ Evaluation of the quality of the database
- ☞ Validation

4 Custom report

- ☞ Generated monthly, quarterly or yearly.

Sites with one or two counters

Obtain a straightforward summary of data logged at your counting points over a specific period:

- ☞ Location;
- ☞ Key figures (total attendance, busiest day of the week, days of record attendance during a given period, etc).
- ☞ Attendance profiles (hourly, weekly, monthly, etc.).



Standard report customized with your logo

Visitor counter widget

Add this counter widget to your website or download it onto your computer to display daily attendance rates logged by one or more counters and effectively communicate this information to your teams or the general public.



Sites with many counters

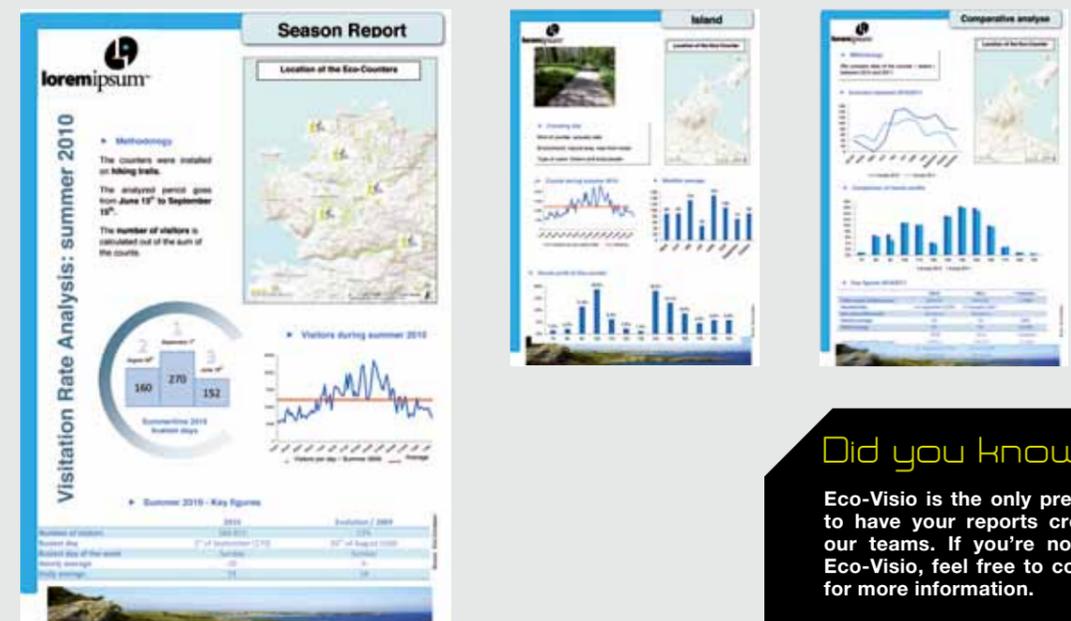
Analyze a site over a given period to obtain immediately usable value-added data:

- ☞ Compare data from several counters;
- ☞ Analyze a specific event or period;
- ☞ Key figures (total attendance, busiest day of the week, days of record attendance during a given period, etc.);
- ☞ Attendance profiles (hourly, weekly, monthly, etc.);
- ☞ Analyze, interpret and extrapolate data.



Powerful communication tools

Our teams can create eye-catching, illustrated reports (season assessments, attendance analyses, impacts of events, comparative before/after analyses, etc.) for the general public and your key partners in the color scheme of your organization.

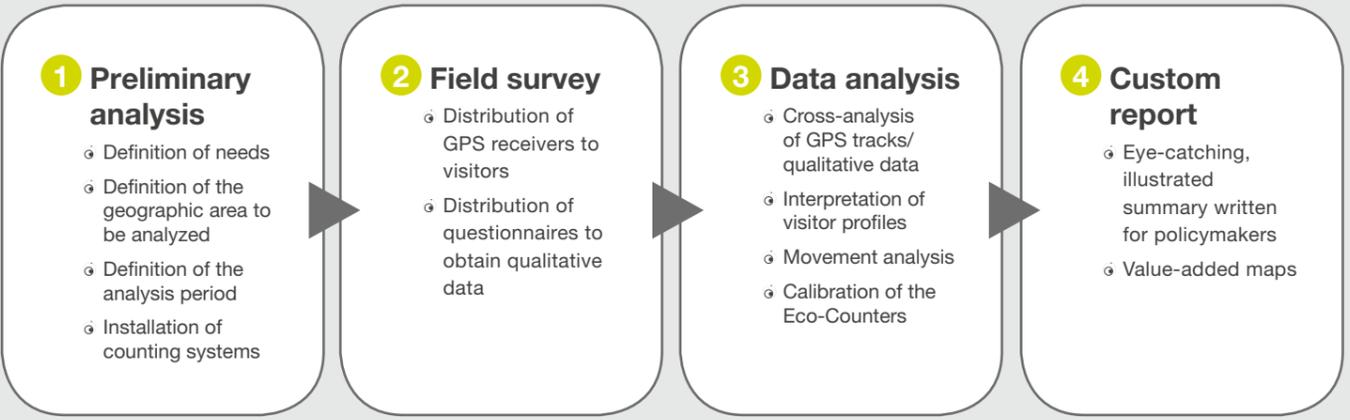
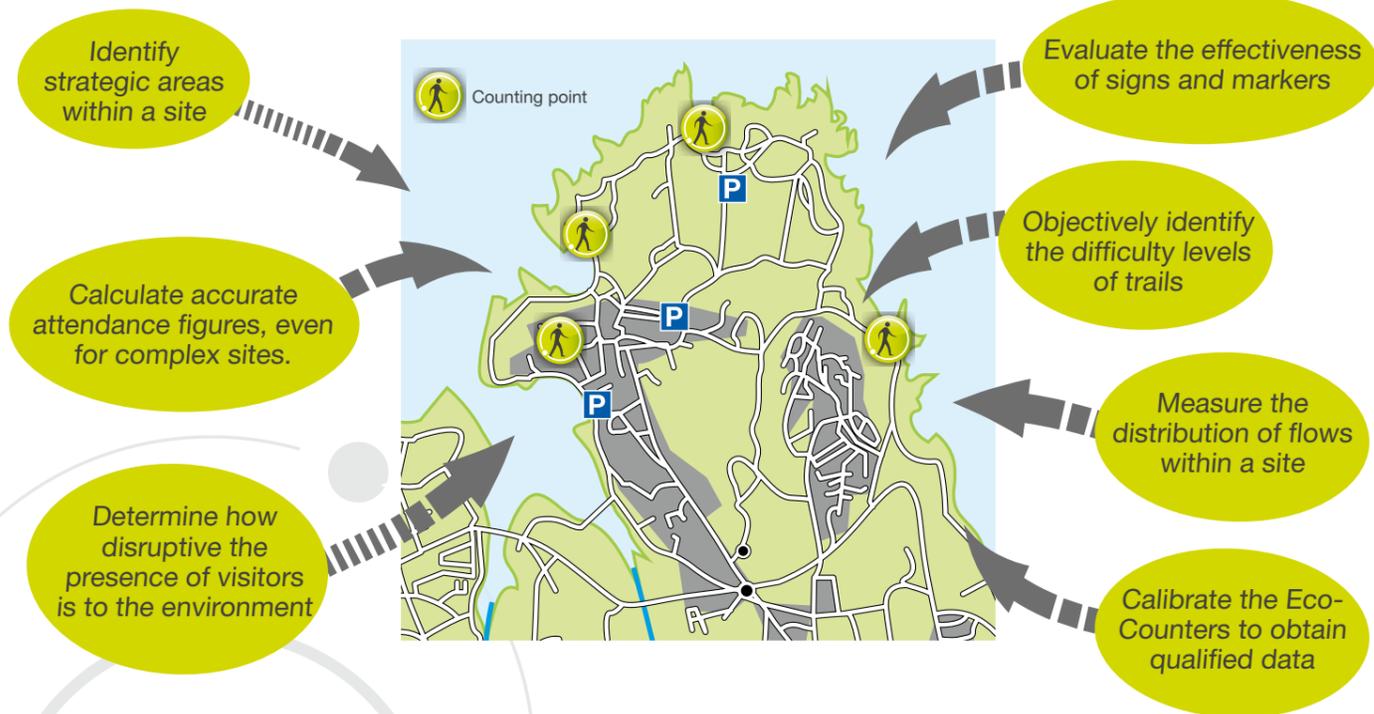


Did you know?

Eco-Visio is the only prerequisite to have your reports created by our teams. If you're not yet on Eco-Visio, feel free to contact us for more information.

Eco-Tracking

Eco-Tracking is an innovative and customizable solution for analyzing site visitor attendance. **Eco-Tracking** combines conventional qualitative field survey methods with the use of a GPS system to obtain information on visitor flows within outdoor sites and analyze how these sites are used by visitors.



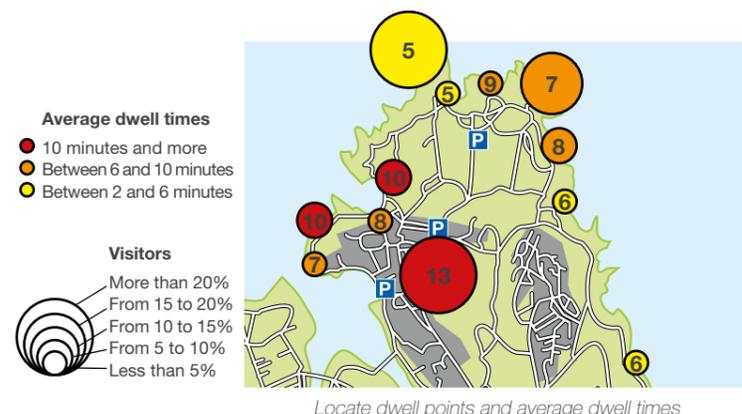
Before

- Conventional field survey: determine visitor profiles**
- Group composition
 - Geographic origin
 - User type
 - Site attendance, etc.



After

- Eco-Tracking: understand site usage**
- Link visitor profiles to their usage of the site
 - Evaluate the time spent on the site according to the sports/activities practiced
 - Measure flows of visitors on the site
 - Locate dwelling points and average dwelling times
 - Identify and rank routes typically taken by visitors
 - Define areas where the presence of visitors is disruptive to the flora and fauna



Did you know?

When combined with GPS receivers and qualitative surveys, permanent Eco-Counters help you monitor attendance over the long term.

Expertise & References

- Unmatched Experience
- Innovative Team

At the edge of innovation

Eco-Combo is an innovative and versatile counter that can differentiate various modes of transportation (bikes, horses, motor vehicles, canoes, etc.). The customizable system consists of sensors that utilize various technologies to detect a specific user type. Each user type detected is managed by **Smart Connect**, an intelligent system that sorts users by category.

- Multi-user
- Waterproof
- Battery-powered

Eco-Combo: the intelligent logger

Eco-Combo is the achievement of several years of Research & Development and is compatible with the whole Eco-Counter range. This intelligent logger **collects, stores and transmits the data** - via a Bluetooth or GSM connection - directly to the online data management platform **Eco-Visio**.



SMART CONNECT

The **Smart Connect** is an intelligent interface between the sensor and the **Eco-Combo** when several sensors are aggregated. This interface is able to sort the data coming from the different sensors. The **Smart Connect** combines them, checks their integrity and consistency, and is able to give an interpretation of the result, in order to classify the different user types.

Our expertise at your service

Eco-Counter provides its entire range of expertise to assist you during every stage of your project.

PRELIMINARY ANALYSIS

- Identification of the needs and objectives of your project;
- Definition of the best counting sites;
- Selection of the counting technology and system architecture;
- Validation of counts to ensure data relevance

INSTALLATION

- Our teams can handle every aspect of installation or supervise your own teams to ensure proper installation.

CUSTOMER SERVICE

- Our dedicated customer-support desk answers all your questions related to installing the system, transmitting data, using the software, troubleshooting and more.



A team dedicated to R & D

- Our qualified technical team designs, develops and tests every product innovation in order to ensure its quality and reliability.
- Customer satisfaction is our number-one priority. Every innovation is inspired by customer feedback.
- Our R&D team possesses multidisciplinary expertise for finding technical solutions for even the most complex situations.



A few of the organizations monitoring Natural Areas with Eco-Counter:



CONNECT TO

www.eco-counter.com

Since 1998, the dedicated Eco-Counter team has been providing solutions for monitoring active transportation: we have always specialized in counting pedestrians, cyclists and horse riders. Greenways, downtown management, active transportation, tourist monitoring and natural areas: today we are able to offer solutions for monitoring this traffic in any type of site configuration. This is why we are worldwide market leaders.

- Greenways
- National and regional parks
- Monuments
- Urban walkways
- Natural reserves
- Forest paths
- City pedestrian areas
- Cycling paths

- Andorra
- Australia
- Austria
- Belgium
- Canada
- Chile
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Iceland
- India
- Ireland
- Israel
- Italy
- Japan
- Korea
- Lithuania
- Luxembourg
- New Zealand
- Norway
- Poland
- Portugal
- Serbia
- Singapore
- Slovakia
- Spain
- Sweden
- Switzerland
- Taiwan
- The Netherlands
- United Kingdom
- United States



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