Biodiversity Protection

We chose to assess the impact of our infrastructure and activities on biodiversity because we consider the protection of natural capital to be part of our responsibility towards the territories in which we operate and towards future generations.

The assessment was carried out by FiberCop with the technical-scientific support of InVento Innovation Lab Impresa Sociale S.r.l.

Executive summary

This document presents a summary of the biodiversity assessment carried out by FiberCop to analyze the interactions between its telecommunications infrastructure and operating activities and the natural context, with particular attention to areas characterized by greater ecological sensitivity.
The analysis is part of a growing international attention to the protection of natural capital and the integration of environmental issues into corporate processes and reporting. It represents FiberCop's first step towards understanding and analyzing the impacts of its operating activities on flora, fauna and protected ecosystems, with full awareness and next shaping mitigation actions.

Compared with other sectors characterized by linear infrastructure, such as energy or transport, the telecommunications sector generally has more limited impacts on biodiversity, as it is not associated with direct high-intensity phenomena (such as electric shock, frequent collisions or significant emissions). However, the presence of network infrastructure, maintenance activities, the development of new infrastructure and decommissioning activities may generate localized and temporary pressures on ecosystems, especially in environmentally sensitive contexts.

The study aimed to map FiberCop's assets against the main areas of natural interest, identify the potential environmental pressures associated with operating activities and provide an initial framing of nature-related risks and opportunities.
The assessment was developed using an approach consistent with the TNFD (Taskforce on Nature-related Financial Disclosures) LEAP framework (Locate, Evaluate, Assess, Prepare), through asset georeferencing, territorial clustering and qualitative impact analysis.

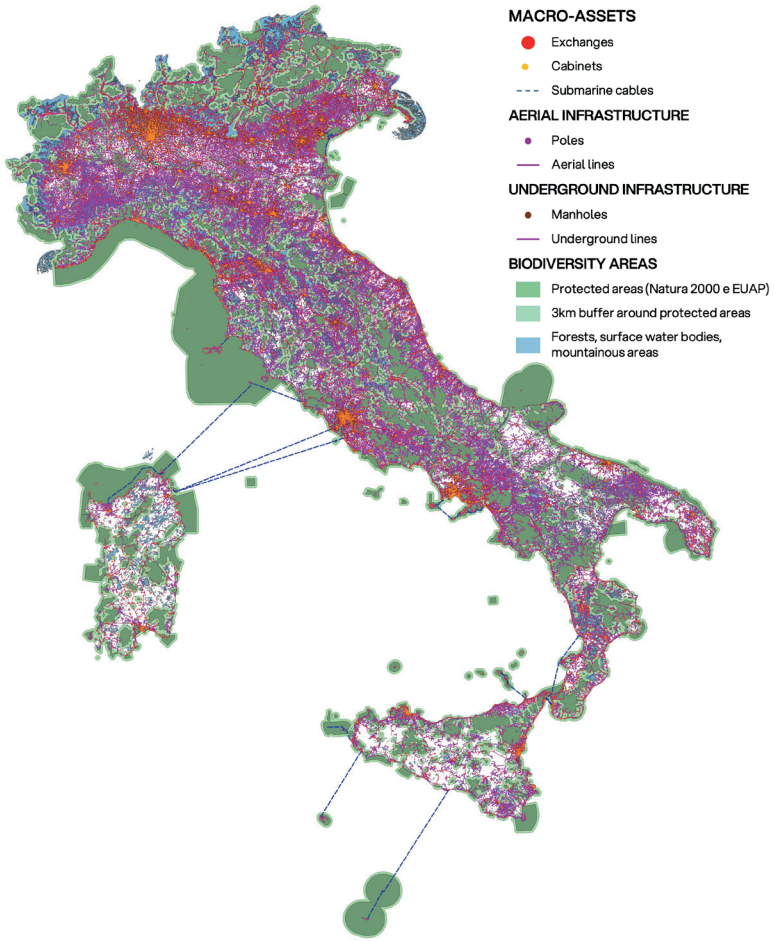
Preliminary results show that FiberCop's infrastructure is largely distributed across contexts with limited environmental sensitivity, although some territorial clusters emerge in which assets are located near or within protected natural areas and sites of ecological interest, for which in-depth assessments and management measures are appropriate.

In this context, FiberCop intends to further strengthen the integration of biodiversity issues into network planning, management and development processes, by promoting an approach focused on the mitigation and offsetting of potential impacts and on the continuous improvement of biodiversity-related performance.

Mapping and location

The mapping and location of FiberCop assets constitute an essential preliminary phase of the assessment, aimed at understanding the territorial distribution of network infrastructure and its possible interactions with areas characterised by high ecological sensitivity. The objective of the analysis is to build an integrated knowledge base capable of identifying situations of proximity, overlap or potential interference between infrastructure assets and the main environmental and natural components present across the national territory.
The activity was carried out using GIS (Geographic Information System) tools and QGIS software. The analysis integrated FiberCop infrastructure data with a set of official and consistent environmental datasets.

The main environmental layers used included the Natura 2000 Network and the Official List of Protected Natural Areas (EUAP), which are the main instruments for biodiversity protection in Italy. These were complemented by other relevant elements from an ecological perspective, such as forest cover, watercourses and surface water bodies, as well as mountainous areas above 1,600 metres in elevation.
The different datasets were harmonized and integrated into a synthetic environmental sensitivity map. As part of the analysis, protected areas were also assigned a 3 km buffer zone in order to consider possible indirect interferences in adjacent areas.



Mapping and location of FiberCop assets and the main ecologically sensitive areas across the Italian territory, carried out through the integration of infrastructure data and environmental layers in a GIS/QGIS environment. Processed by InVento Lab based on FiberCop data and official environmental datasets.

In parallel, FiberCop's assets were georeferenced and systematized, selecting the main relevant infrastructure components: around 10 thousand exchanges, more than 200 thousand street cabinets, around 7 million poles associated with aerial lines, 3 million manholes for underground lines and 1,600 km of submarine cables. The subsequent spatial overlay of assets and sensitive areas made it possible to quantify the presence of infrastructure across the territory.
The data derived from the mapping and spatial analysis provide the information base for the subsequent clustering activities and for the identification of the areas most affected and characterized by greater environmental sensitivity.

Impact and dependency analysis

The assessment analyzed the main interactions between FiberCop infrastructure and biodiversity in order to identify the territorial areas in which infrastructure may give rise to more significant pressures on ecosystems and, in parallel, to highlight the main dependencies on ecosystem services that contribute to the functionality and resilience of the network.

Impact analysis was carried out by clustering Italian territory to identify the areas of greatest environmental relevance in relation to the presence of FiberCop infrastructure. The territory was therefore divided into regular spatial units of 3 × 3 km; each unit was assigned a level of potential impact. For this purpose, a matrix integrating the ecological sensitivity level of the territory with the impact magnitude of infrastructure assets has been developed, thus identifying the cells with the greatest potential impact on biodiversity.

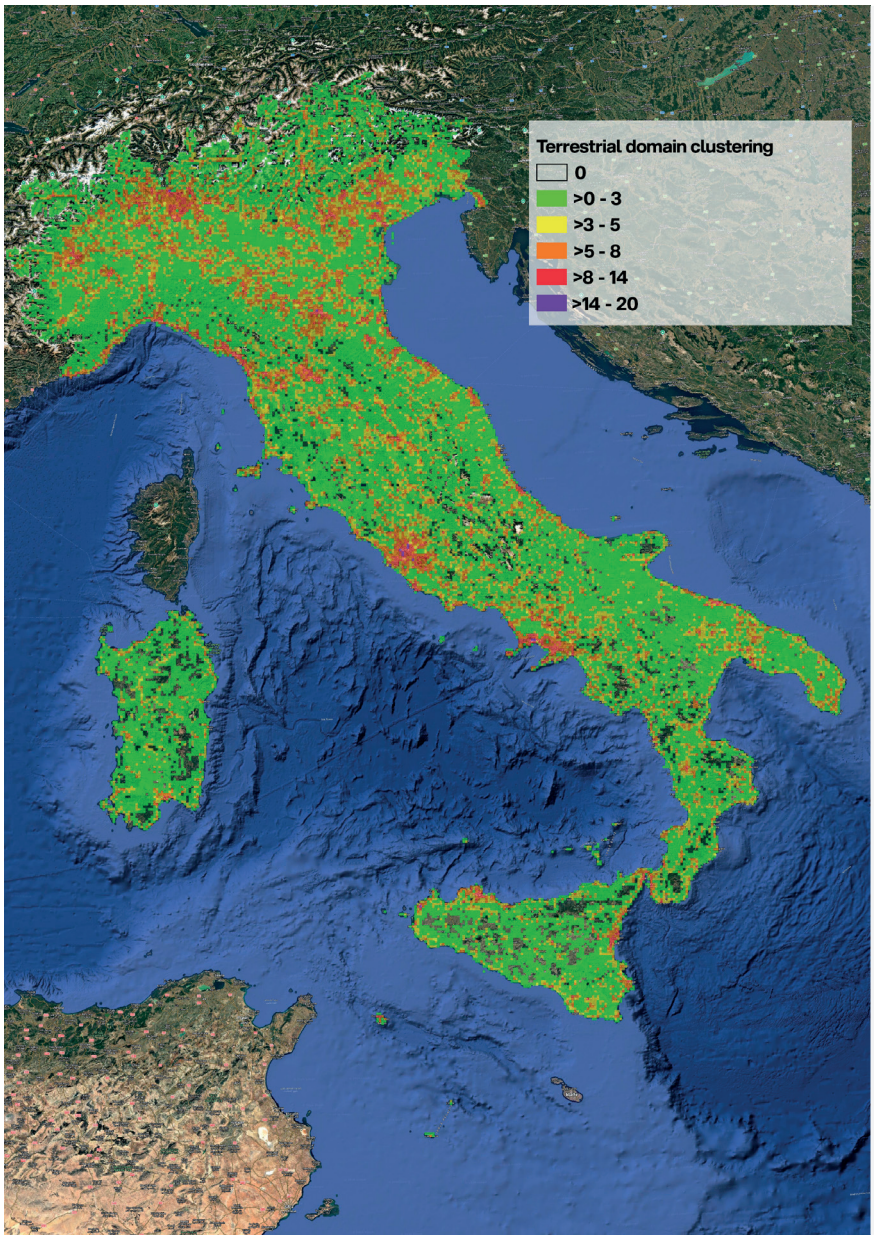
Impact magnitude → Ecological sensitivity ↓	**0**	**1**	**2**	**3**	**4**	**5**
1 – Low	0	1	2	3	4	5
2 – Medium	0	2	4	6	8	10
3 – High	0	3	6	9	12	15
4 – Very high	0	4	8	12	16	20

Significance matrix developed using a multicriteria approach, consistent with the main impact assessment frameworks and with the Evaluate phase of the TNFD LEAP framework. Impact significance is determined by the product of infrastructure impact magnitude (continuous scale 0–5) and the ecological sensitivity of the context (ordinal scale 1–4), yielding a continuous index ranging from 0 to 20.
The impact magnitude values were preliminarily classified using statistical criteria based on the distribution of infrastructure data (e.g. Natural Breaks/Jenks), while the final significance classes were defined on the basis of the distribution of the resulting index values.

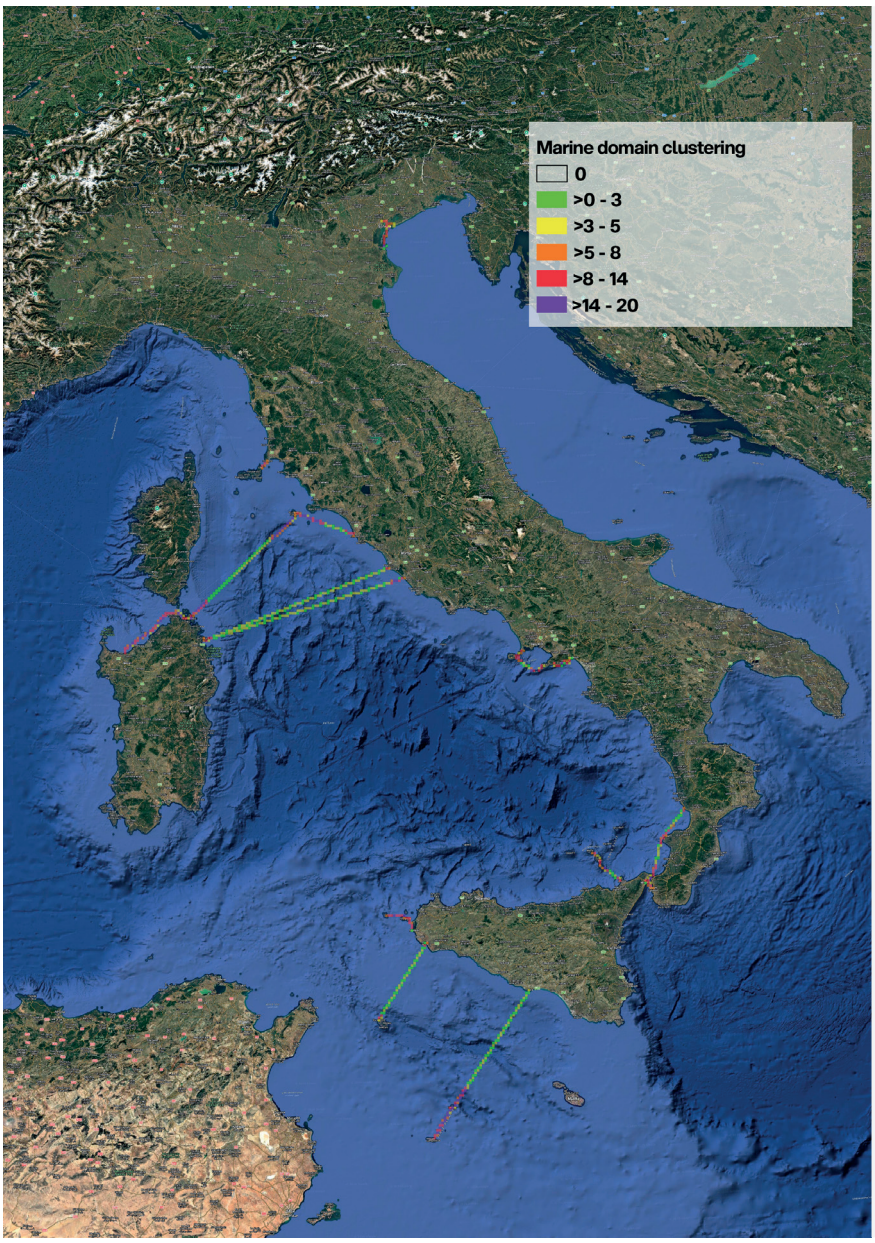
The clustering was developed separately for the terrestrial and marine domains, in view of the different availability, scale and type of environmental and infrastructure data used.
The ecological sensitivity component was defined through the integration of various environmental and natural layers, including EUAP protected areas and Natura 2000 sites, 3 km buffers around them, other areas of natural interest such as forest and mountain areas, river systems and wetlands, and the remaining territory, which is predominantly urban and agricultural. Each spatial unit was then assigned an environmental sensitivity level based on the presence of these elements. The ecological sensitivity classification was also subjected to an ecological coherence check through analysis of the distribution of species of conservation interest as reported in the official datasets under the Habitats Directive and the Birds Directive, showing a greater concentration of species in the higher-sensitivity classes and confirming the methodological robustness of the classification adopted.
The infrastructure component considered the different asset types used in the previous mapping phase, including exchanges, cabinets, aerial lines, underground networks and submarine cables, understanding that each may present specific potential interactions with the territory and ecosystems. The main pressures potentially associated with assets were considered, including land take and soil sealing, habitat alteration or fragmentation, interference with vegetation and fauna, noise disturbance and sediment movement. In the marine domain, particular attention was given to possible interferences with sensitive habitats such as Posidonia oceanica meadows, coralligenous habitats and vulnerable coastal areas. Potential positive or neutral interactions between infrastructure and ecosystems were also considered. In particular, certain aerial infrastructure or technological artifacts may in some contexts be used by fauna as perching, shelter or nesting sites, while some areas associated with infrastructure may locally contribute to the conservation of spontaneous vegetation or secondary habitats. These elements do not eliminate the potential negative impacts associated with the infrastructure, but they highlight the complexity of ecological interactions across the territory and the importance of careful management of operating and maintenance activities.
The impact magnitude calculated for each cell derives from the combination of two components: presence magnitude, associated with the physical and structural presence of infrastructure, and maintenance magnitude, related to the disturbance generated by maintenance activities in terms of frequency and invasiveness. The two components were integrated through a weighted combination that assigns greater relevance to the presence of assets, considered a continuous and permanent pressure on the territory.
The intersection between ecological sensitivity and impact magnitude then made it possible to assign each spatial unit a level of potential impact, enabling the identification of territorial clusters characterized by greater environmental criticality. Areas in which high environmental sensitivity and a significant infrastructure presence coexist are priority areas for subsequent risk assessments, definition and planning of prevention, mitigation and regeneration measures. The results show that such scenarios are overall limited and concentrated

in specific territorial contexts. In the terrestrial domain, the high- and very high-impact classes affect a limited share of the analyzed cells and are mainly associated with urbanized or peri-urban regions close to protected areas. In the marine domain, the highest-impact situations are concentrated mainly at submarine cable landings and along the main coastal infrastructure corridors, reflecting both the limited extent of marine infrastructure compared with the breadth of the marine domain considered and the point-specific nature of the associated pressures.

In parallel with the impact analysis, the main dependencies of FiberCop infrastructure on ecosystem services have been examined in greater depth. Telecommunications infrastructure depends, to a significant extent, on the ability of ecosystems to provide regulating and supporting services that contribute to network stability and continuity of operations.
The main relevant ecosystem services include protection against erosion and geomorphological instability, regulation of natural hazards, regulation of the



Clustering of the potential impact of FiberCop infrastructure in the terrestrial domain on a regular 3 × 3 km grid, obtained by intersecting ecological sensitivity and impact magnitude. Cells are classified according to an increasing scale of criticality: no impact (transparent), very low (green, values >0–3), low (yellow, values >3–5), medium (orange, values >5–8), high (red, values >8–14) and very high (purple, values >14–20).
Processed by InVento Lab.



Clustering of the potential impact of FiberCop infrastructure in the marine domain on a regular 3 × 3 km grid, obtained by intersecting ecological sensitivity and impact magnitude. Cells are classified according to an increasing scale of criticality: no impact (transparent), very low (green, values >0–3), low (yellow, values >3–5), medium (orange, values >5–8), high (red, values >8–14) and very high (purple, values >14–20).
Processed by InVento Lab.

hydrological cycle and local climate regulation. Ecosystem dependencies are also particularly relevant in relation to climate change and the increasing frequency of extreme events. Phenomena such as windstorms, floods, coastal erosion and storm surges may significantly affect network operations, highlighting the fundamental role of ecosystems in contributing to infrastructure resilience.

The results of the assessment therefore provide a useful knowledge base to inform subsequent evaluations of nature-related risks and opportunities and to support the integration of environmental considerations into the maintenance, development and decommissioning processes of FiberCop infrastructure. In addition, the information derived from the mapping and territorial clustering provides operational support for the definition of future guidelines and mitigation, prevention and sustainable management measures for infrastructure activities, with particular attention to areas characterized either by greater ecological sensitivity or greater infrastructure concentration.

Risks and opportunities

The analysis of impacts and ecosystem dependencies made it possible to identify the main nature-related risks and opportunities potentially relevant for FiberCop, consistently with the approach envisaged by the above mentioned TNFD LEAP framework. In particular, the assessment shows how the interactions between network infrastructure, ecosystems and the territorial context may influence continuity of operations, permitting processes, management costs and the Company's strategic positioning.
The identified risks can be distinguished into physical risks and transition risks.
Physical risks derive from ecosystem degradation and the loss of regulating ecosystem services, which contribute to hydrogeological stability, water flow regulation and the mitigation of extreme events.

The reduction of these ecosystem functions may increase the exposure of infrastructure to phenomena such as floods, landslides, erosion, windstorms and storm surges, with possible effects on service continuity, asset integrity and network maintenance and restoration costs. In areas characterized by a high concentration of infrastructure, conditions of geomorphological and hydrological sensitivity may be present which, in general terms, constitute physical risk factors with respect to possible exposure to extreme natural events.

Transition risks, by contrast, are linked to the evolution in the Italian and European regulatory framework, environmental policies and stakeholder expectations regarding biodiversity and ecosystem protection. In particular, the presence of infrastructure within or near protected areas and highly natural contexts may entail more complex permitting processes, greater operational constraints and possible increases in the costs associated with network development and maintenance operations.
These features are accompanied by potential reputational and financial risks related to investors' growing attention to ESG and nature-related issues.

At the same time, the analysis also highlights several opportunities associated with a more in-depth management of biodiversity issues. The integration of biodiversity criteria into the planning, design and maintenance of infrastructure can help reduce impacts on ecosystems, improve the operational resilience of the network and facilitate permitting processes in the most sensitive areas.
In addition, the adoption of such biodiversity-sensitive approaches can strengthen the Company's ESG positioning. In a context characterized by growing attention from investors and financial markets to nature-related risks and performance, a more structured approach to biodiversity issues may help improve the Company's attractiveness, expanding opportunities for access to investment instruments consistent with the objectives of the ecological transition.

From this perspective, the areas identified as most sensitive may represent not only contexts of potential criticality, but also priority areas in which to pilot innovative design solutions strongly oriented towards the protection of natural capital.

Looking forward

This assessment provides a solid knowledge base to guide the evolution of corporate strategies towards an increasingly integrated management of biodiversity issues.
The information derived from the mapping and clustering makes it possible to identify the most sensitive and priority contexts for planning mitigation, prevention and environmental regeneration actions, consistent with corporate sustainability objectives and with the evolution of the regulatory and environmental context.
A first area concerns strengthening prevention and impact mitigation activities through the definition of operational guidelines that systematically integrate biodiversity considerations into the maintenance, development and decommissioning activities of FiberCop infrastructure. The measures identified include, for example, the planning of activities during ecologically less sensitive periods, the application of the mitigation hierarchy, the containment of noise disturbance, the sustainable management of vegetation, the use of lower-impact technologies such as No-Dig/TOC solutions, and attention to the protection of terrestrial and marine ecosystems during operating activities.

The assessment also represents a starting point for the possible development of nature-positive initiatives and projects aimed not only at reducing impacts but also at generating positive effects on territories and ecosystems. In particular, the areas identified as most sensitive or characterized by a higher concentration of infrastructure may constitute priority contexts for launching local mitigation and environmental regeneration projects, to be developed in alignment with the corporate sustainability strategy.

From this perspective, it will be important to assess how synergies can be built with other stakeholders already active in the territories and protected areas where FiberCop is present, such as local authorities, associations, scientific bodies and local communities, fostering collaborative and integrated approaches to the management of natural capital. These initiatives may contribute not only to improving the environmental resilience of the territories affected by infrastructure, but above all to creating shared value and promoting long-term benefits for future generations.

FiberCop