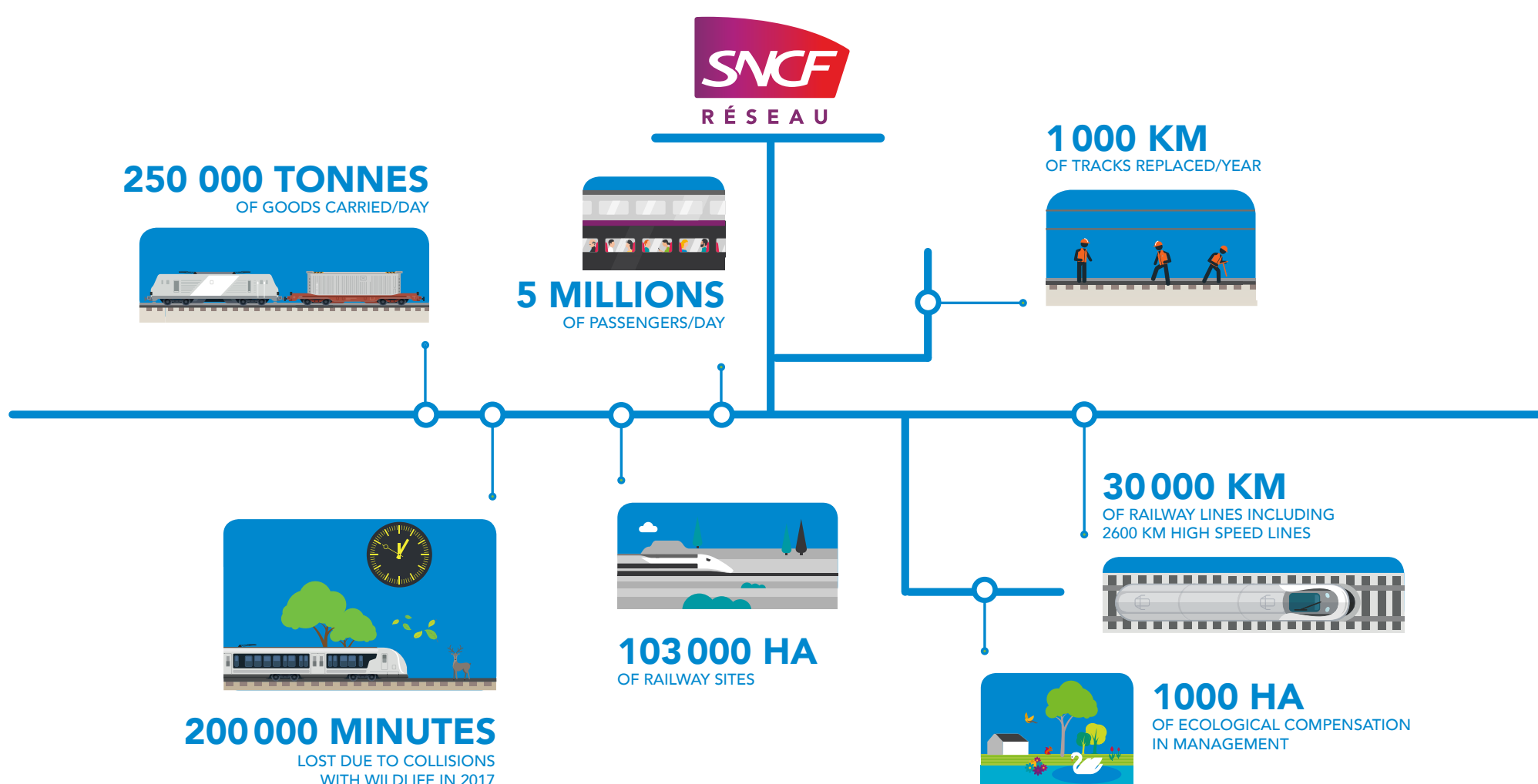


SNCF RÉSEAU IS THE MANAGER OF THE FRENCH NATIONAL RAIL NETWORK.

SNCF Réseau's missions concern the operation, maintenance and modernisation of the network, with a view to sustainable development. SNCF Réseau ensures the optimum use of the network by passengers and freight transport services, in accordance with the objectives of safety, quality of service and cost control, and by guaranteeing the conditions for free and fair competition to railway undertakings.

To offer a quality public service and in order to promote rail transport in France, SNCF thus ensures :

- The access to the national network to the railway undertakings,
- The operational traffic management,
- The upkeep and maintenance of network,
- The network modernisation and development.



Each year, in the fall, a peak in collisions is observed. It is explained in particular by :

- the coincidence of the periods of activity of the animals (at sunrise and sunset) with the peaks of human movements (between 7am and 9am and between 5pm and 7pm),
- increased movement of animals in search of new territories or disturbed by harvests and the opening of hunting.

In the spring, the movement of young animals in search of territory also causes collisions, the number of which is much smaller than in the autumn.

CONTEXT

Collisions with animals have been among the causes with a significant impact on train punctuality and have increased steadily in recent years for several reasons :

- Population explosion (wild boars in particular)
- Constant increase of anthropic pressure (urban sprawl, intensive agriculture, infrastructure, etc.)
- Climate change and food abundance
- Decrease in hunting pressure

Digging animals also cause trouble for stability of earthworks when they dig their galleries in railway embankments, causing furring or slowing down of supported traffic. However, it is essential to distinguish between collisions with domestic animals, involving the responsibility of their owner, and collisions with wildlife, which belongs to no one (res nullius).



Photo of the front of a TGV that struck a wildboar



Photo of wildboars struck along the tracks

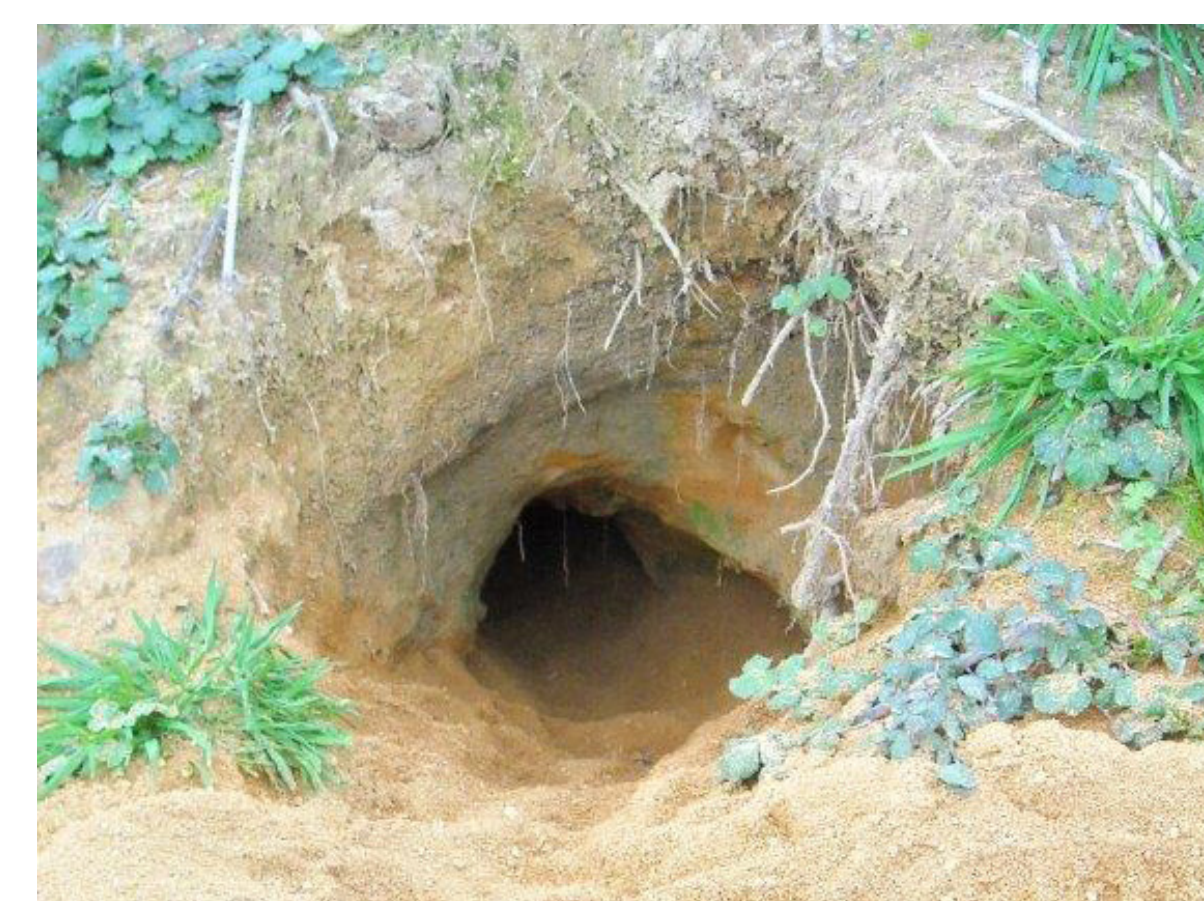
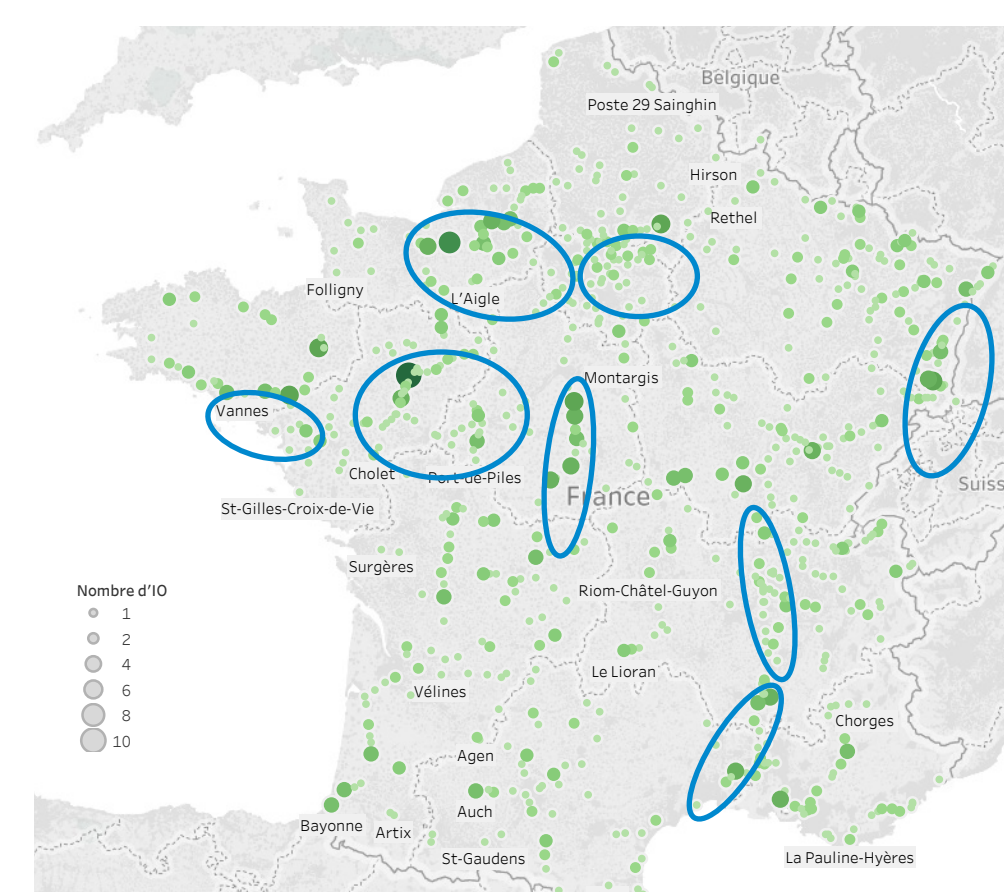
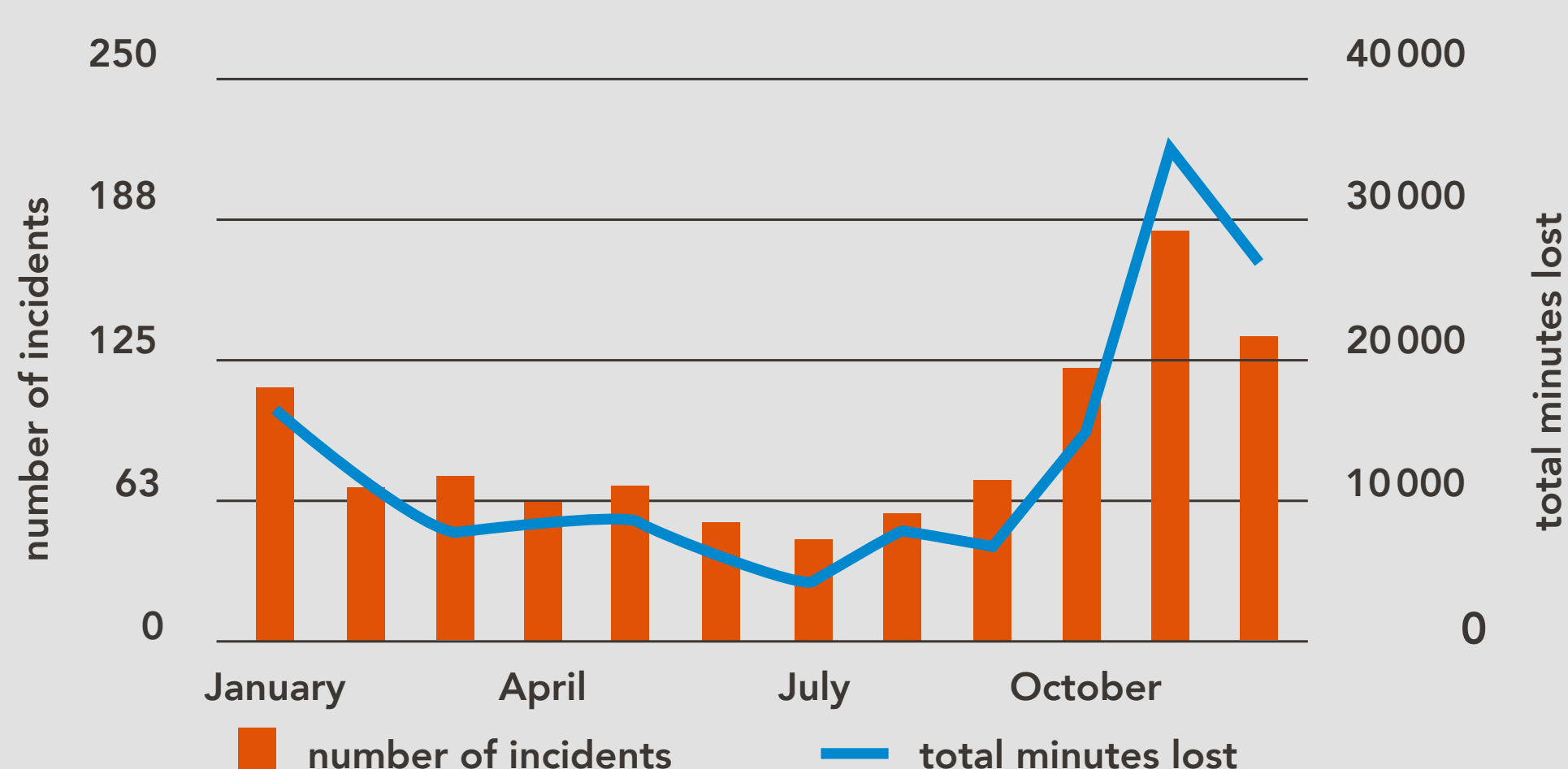
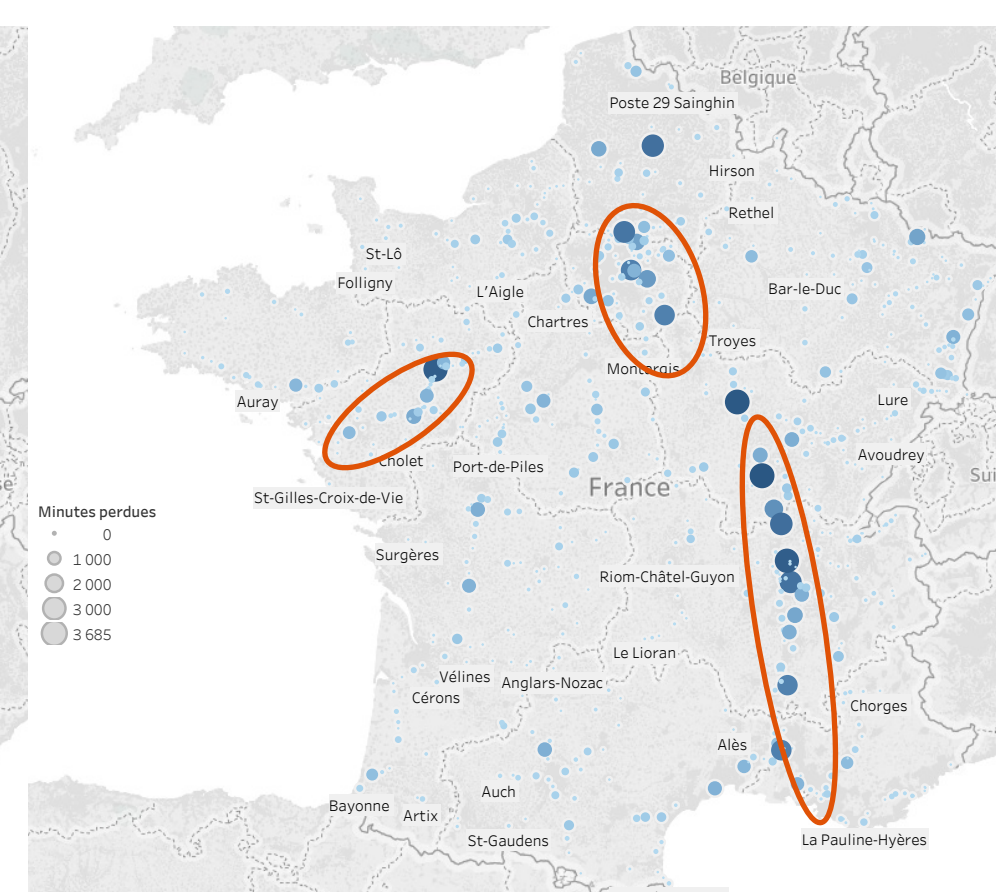


Photo of a badger terrier on high-speed-line

COLLISIONS WITH WILDLIFE ON THE NETWORK IN 2017

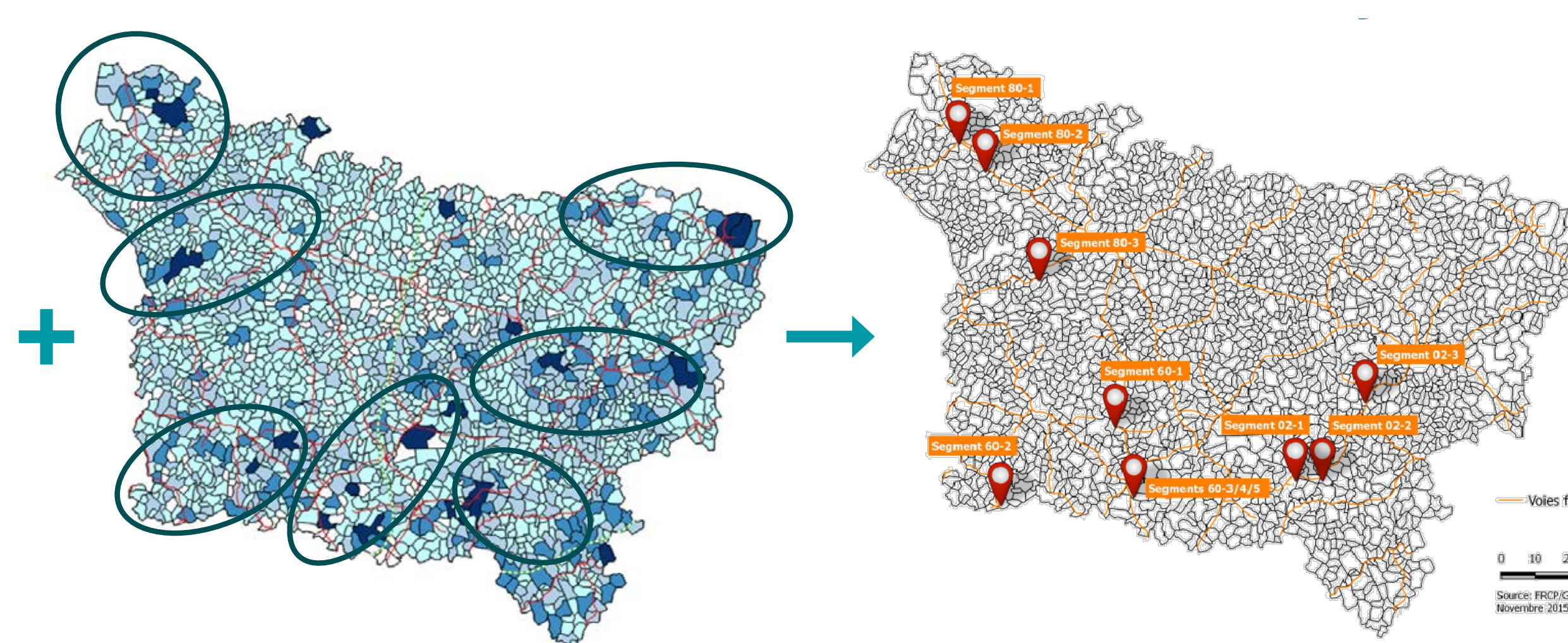
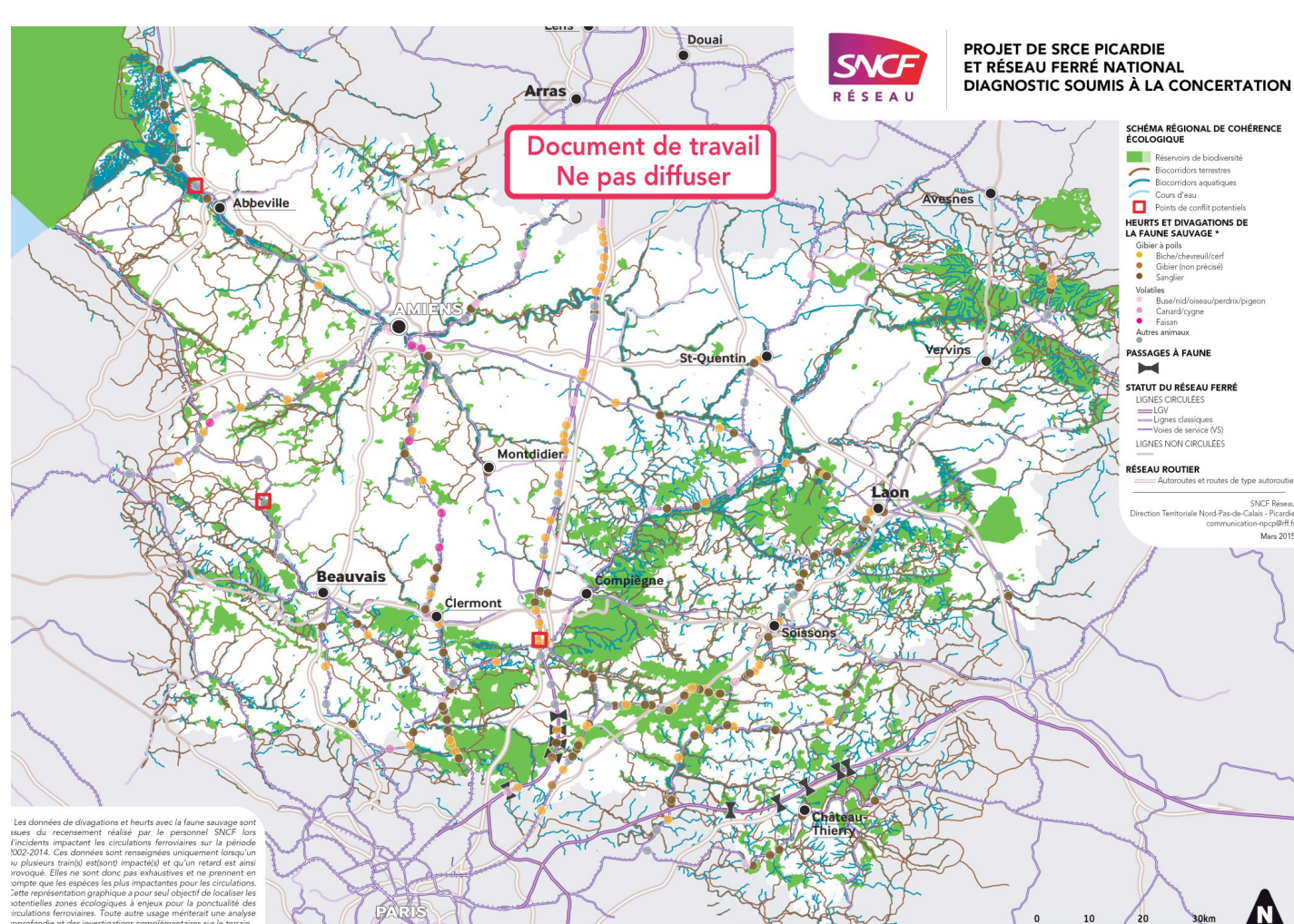


Map of collisions in 2017 on the French rail network



Map of minutes lost due to collisions in 2017 on the French rail network

DIAGNOSIS: In order to reconcile ecological transparency and collision reduction, actions or adjustments are possible. Beforehand, each maintenance establishment must establish a diagnosis of the risk areas in order to prioritize the areas of action. Several methods are possible (landscape graphs, map data crossing,...). Here is an example of a diagnosis :



Data provided by SNCF Réseau :

- Ecological reservoirs and corridors
- National railway network
- Collisions over the last 5 years
- Large Wildlife Passages

Data provided by hunters :

- Hunt boards
- Wooded surfaces
- Animal Concentration Zones
- Field surveys

On the classic line network in Picardy, SNCF Réseau entrusted a study to the Fédération Régionale des Chasseurs to establish a precise diagnosis of high-risk segments.

On each of the 9 priority segments identified, courses of action and development proposals have been formulated.

SOLUTIONS: Here are the areas of progress that can be found in a maintenance establishment's wildlife action plan.



ORGANIZATION

- Develop a wildlife collision avoidance policy
- Integrate management or development advice into existing maintenance policies (vegetation management plan, fences master plan, etc.)
- Train and set up wildlife regulator(s) in rights-of-way
- Allow the intervention of external actors to regulate populations in rights-of-way or intervene on alert after obtaining the necessary permits.

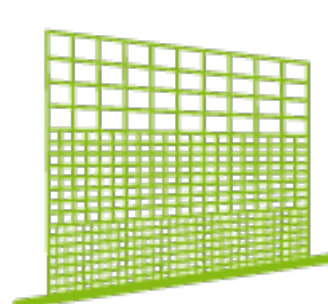
ORGANIZATION



COMMUNICATION & CONSULTATION

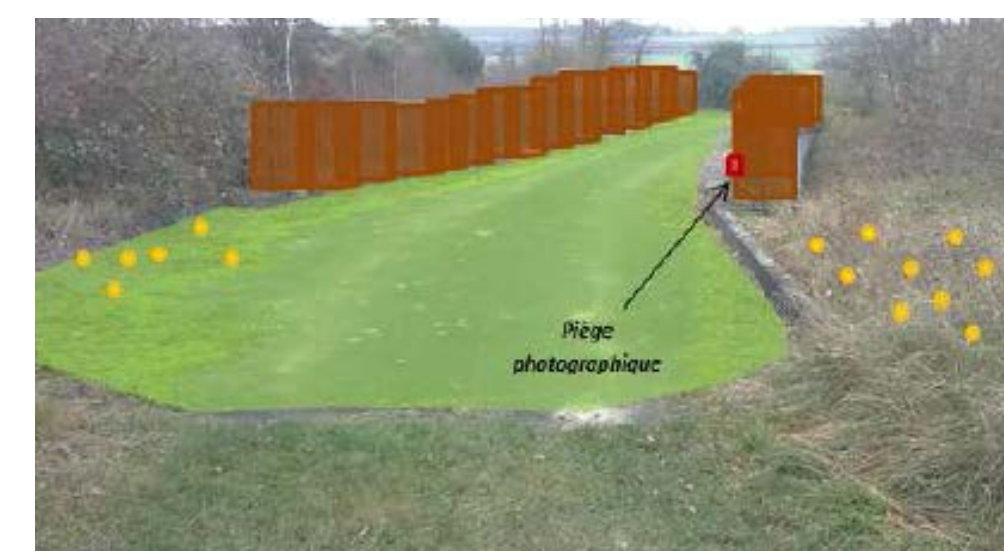


ARRANGEMENTS

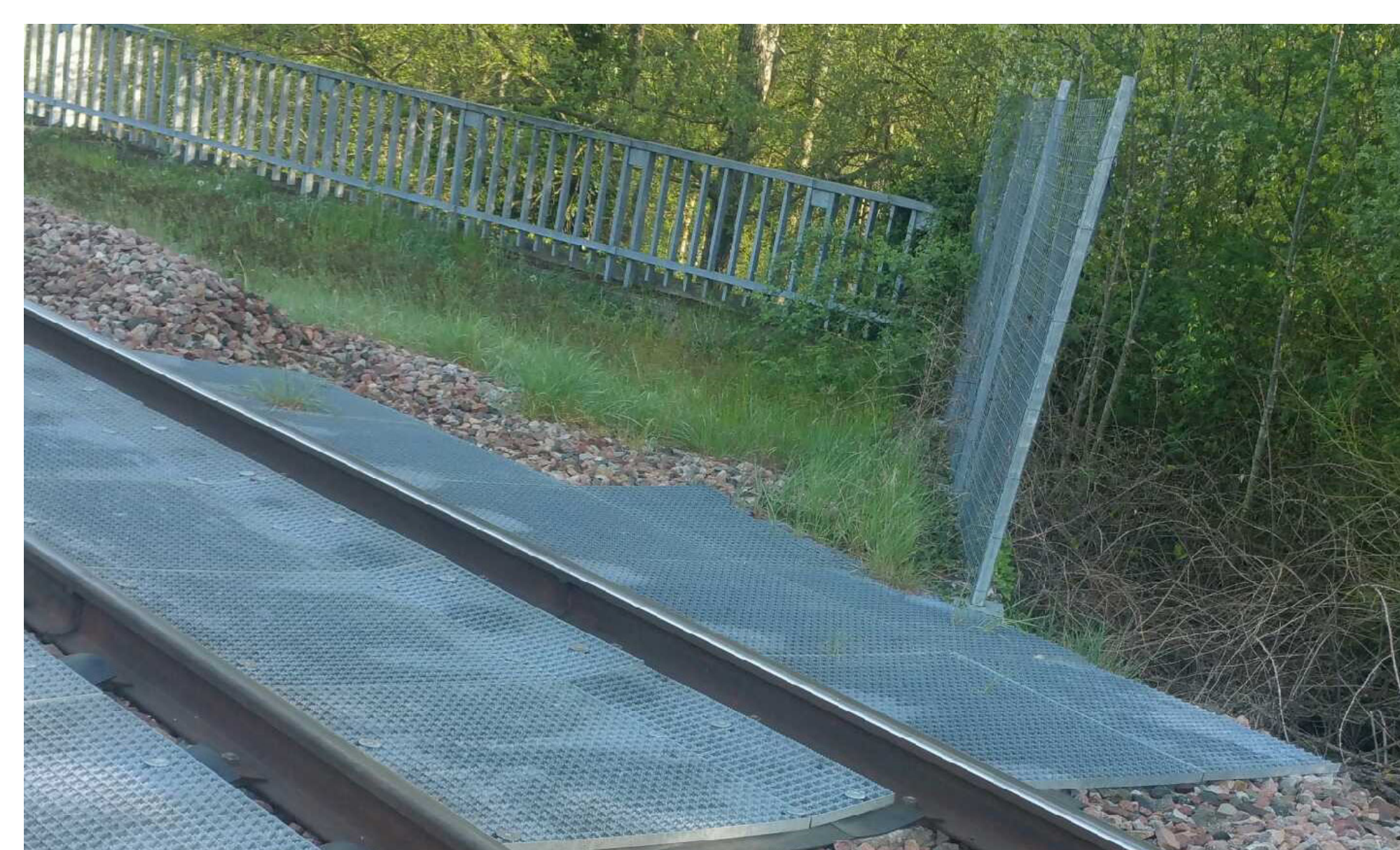
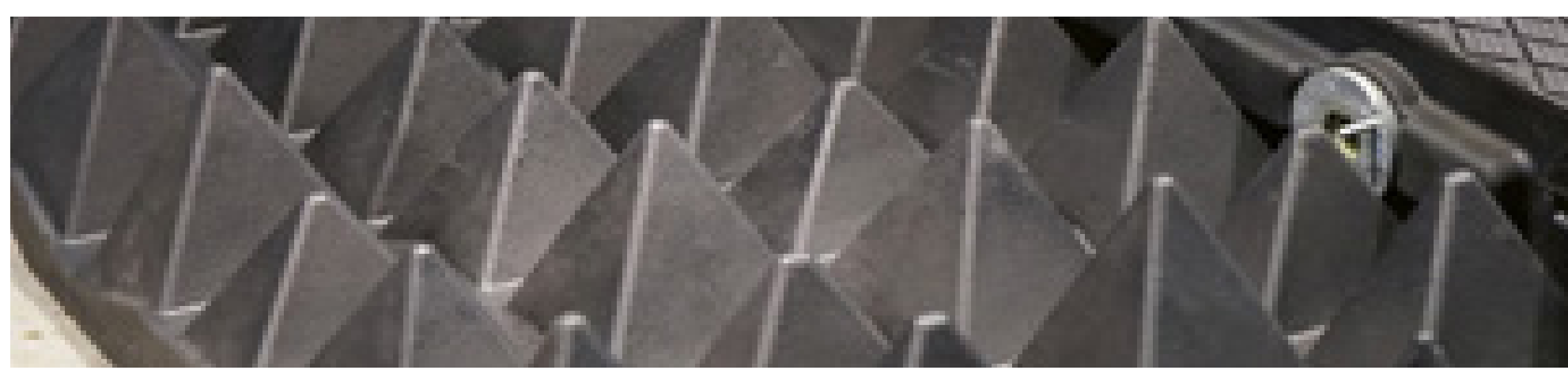


ARRANGEMENTS

- Landscape existing bridges and structures to direct animals to cross at these places



- Repair, regenerate or reinforce fences
- Set up detection devices (e.g. photographic traps with MMS alert, etc.)
- Install anti-intrusion systems such as anti-intrusion coatings, Canadian grids, adaptive harrows, etc.



COMMUNICATION AND CONSULTATION

· Sending collision maps to State services, Regions and Hunters Federations...

· Bring together internal and external stakeholders (natural area managers, local authorities, hunting associations, breeders, farmers, State services, ...) in order to share our challenges and adopt a concerted and global management of the territory

· Meet the departmental federations of hunters or local associations to discuss our issues or set up a system of communication or even common interventions

· Improvement of existing communication tools for a better knowledge of our rights-of-way and more precise information

· Use of an application dedicated to wildlife regulators to facilitate the reporting of their interventions

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Fermer Intervention Faune

ENVIRONNEMENT
Intervention Régulation Faune

Type d'intervention

☐ Intervention volontaire

☒ Intervention sur signalement

PK début

Saisir

CONDITIONS D'INTERVENTION

OBSERVATIONS GÉNÉRALES

FINALISATION

Enregistrer Transférer Brouillon

- Set up scaring systems (visual, sound, smell, etc.) to respond to a local and temporary problem

