

THE INTERACTIVE PLATFORM "SIGNALEMENT-AMBROISIE": A TOOL TO FIGHT AGAINST RAGWEED



IRS 2022
INTERNATIONAL RAGWEED SOCIETY
CONFERENCE
BUDAPEST, HUNGARY
8-9 SEPTEMBER



FREDON
FRANCE



RNSA
RÉSEAU NATIONAL DE SURVEILLANCE AÉROBIOLOGIQUE



OBSERVATOIRE
DES
AMBROISIES

CENTRE DE RESSOURCES SUR LES AMBROISIES

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INTRODUCTION

Ragweed is an annual plant native from North America and has colonized many countries like France and Hungary for instance. An invasive species like *Ambrosia artemisiifolia* is an alien living species that becomes a disturbance agent "harmful" to the indigenous biodiversity of natural or semi-natural ecosystems from which it was established.

The individual prevalence of ragweed allergy in Rhône-Alpes region (France) was about 13% in 2014 (compared to 9.2% in 2004) and reached 21% on the highly exposed area (according to a study by Regional Health Agency published in 2014). Furthermore, around 45% of Auvergne - Rhône-Alpes inhabitants were exposed to ragweed pollen for more than 20 days in 2021 at a sufficient concentration level to trigger symptoms.

The health symptoms experienced by sensitive people are mainly manifested as rhinitis, conjunctivitis, tracheitis, and even asthma. The treatment of these pathologies cost 40,6 million euros (annual public expenses related to ragweed allergy in Rhône-Alpes in 2017), and health costs are increasing.

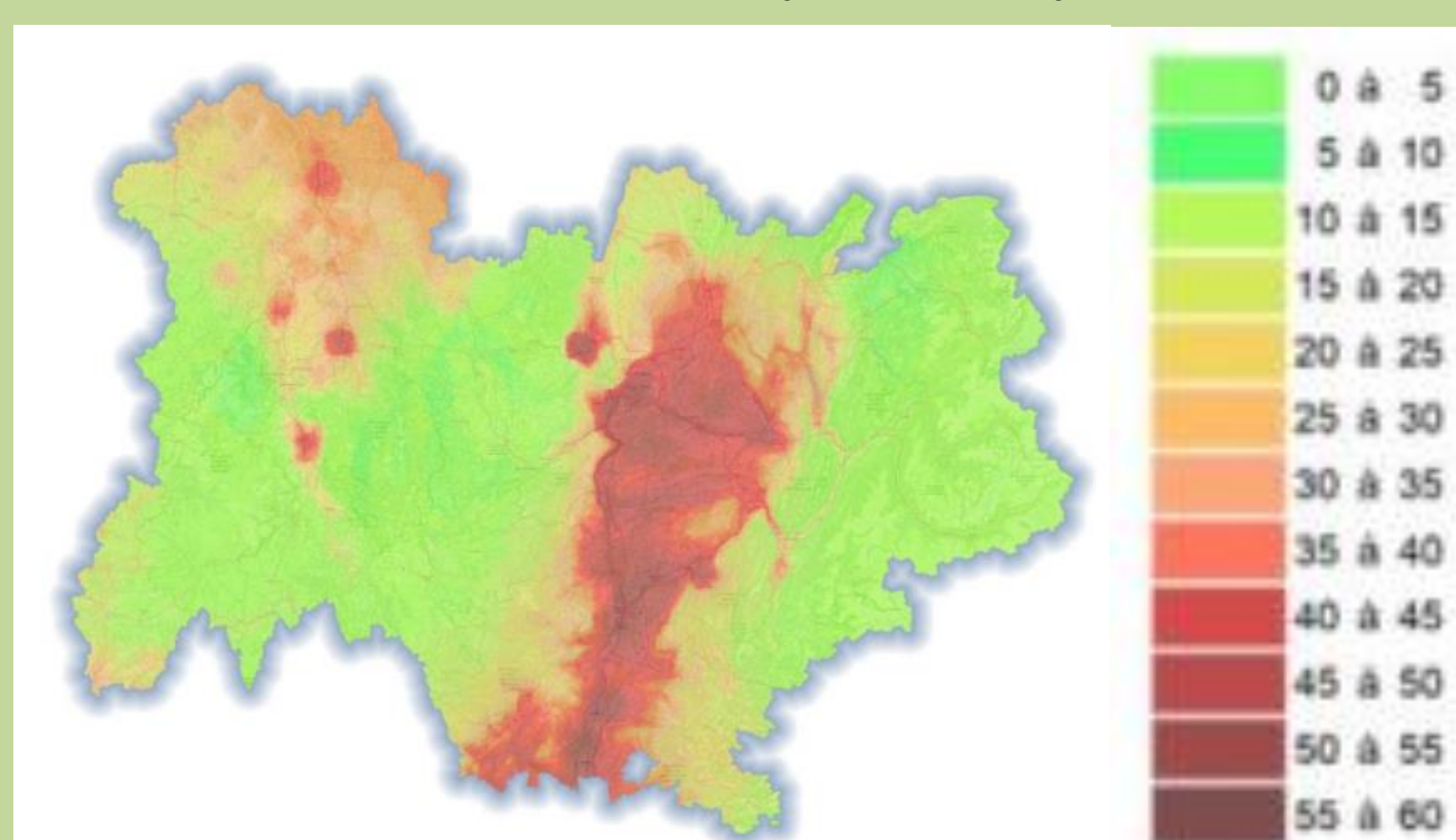


Fig.1 Days with an allergy risk moderate or more in Auvergne - Rhône-Alpes Region – France (source: ATMO Auvergne Rhône-Alpes)

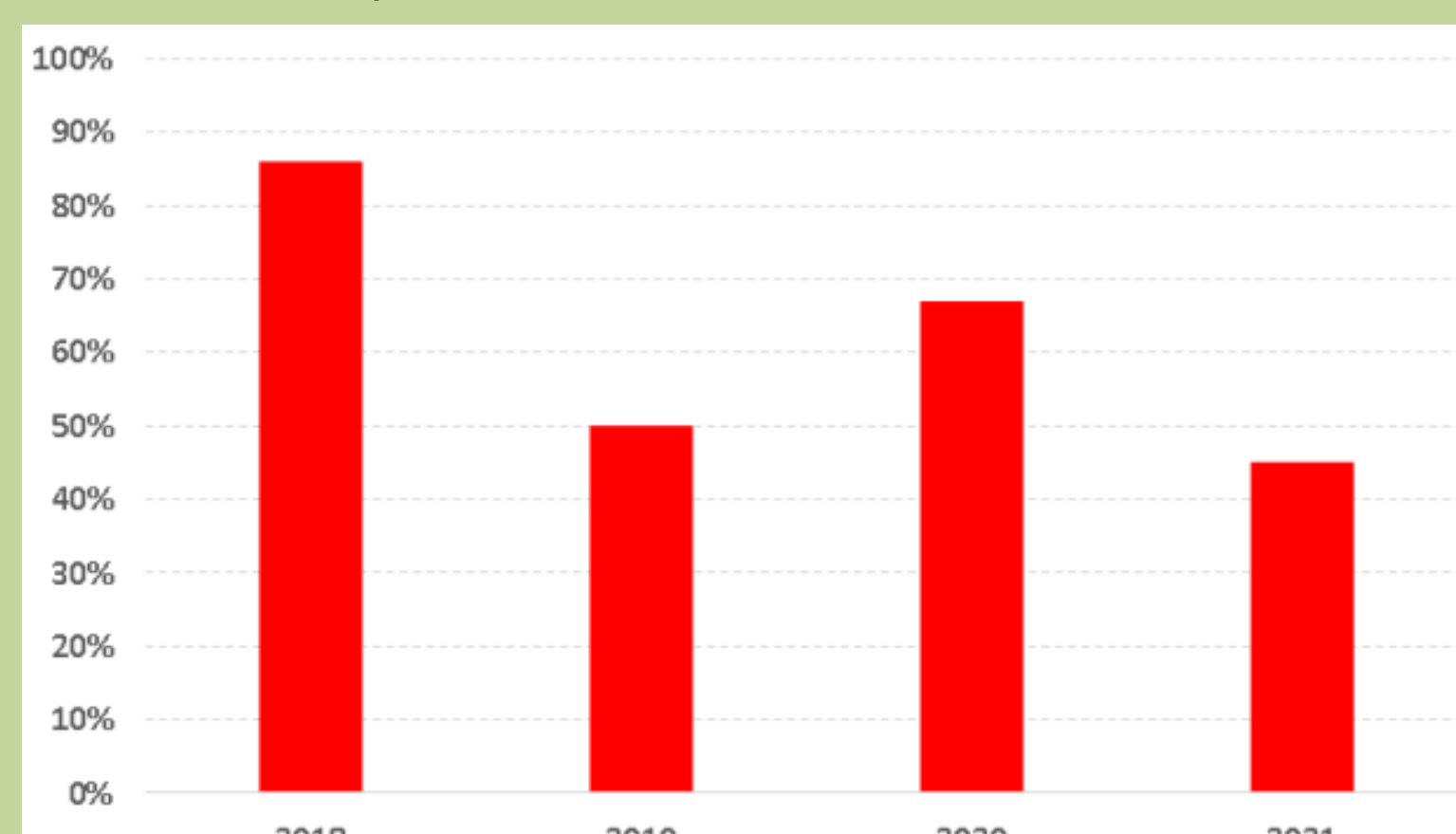


Fig.2 Percentage of the population of Auvergne – Rhône-Alpes region exposed to 20 days to a moderate or high allergy risk (source: ATMO Auvergne Rhône-Alpes)

MATERIAL & METHOD

To fight more efficiently against ragweed and reduce health costs, an interactive platform "Signalement-Ambrosie" has been launched in 2014 in order to mobilize and involve people in the fight against Ambrosia. The platform only concerned the most infested area at the beginning before expanding to the whole of France in 2016. "Signalement-Ambrosie" is a simple three-step process that allows everyone to be an actor. The interactive platform allows reporting ragweed using different channels: website, smartphone app, e-mail and phone. With this platform, several thousand reports every year has led to the removal of many ragweed plants. The reports are sent to the referents of concerned areas.



Fig.3 How to participate in the fight against ragweed?

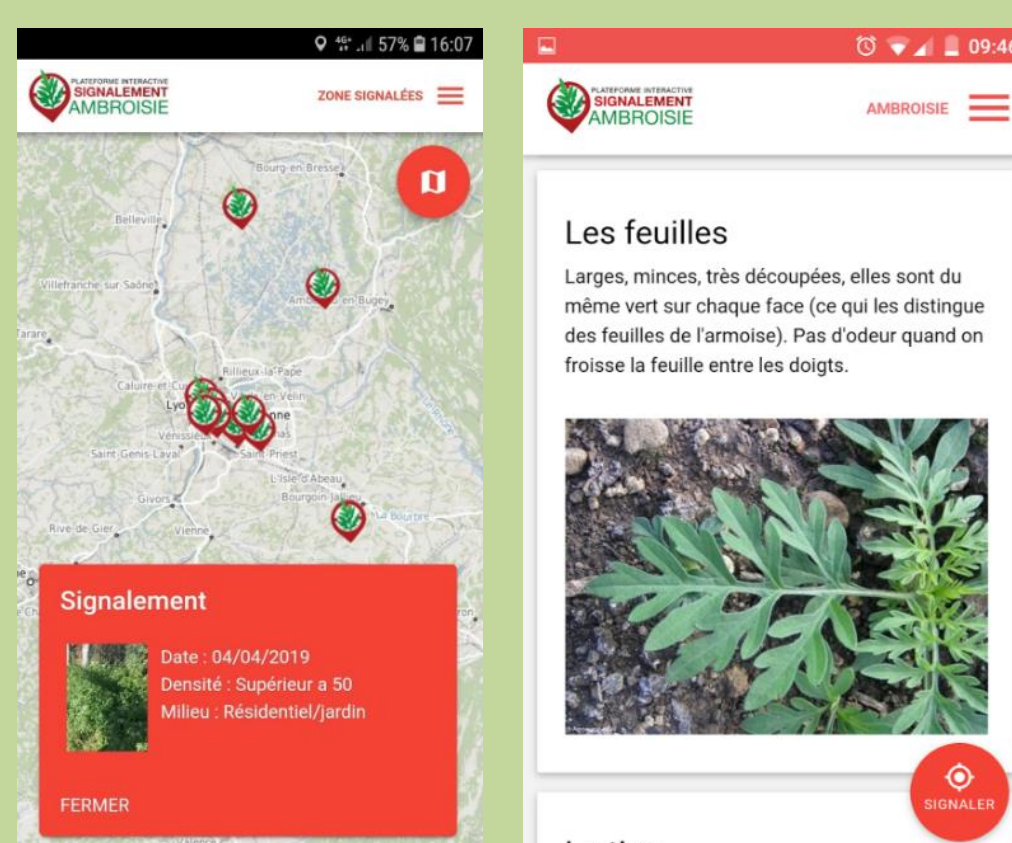


Fig.4 Smartphone App

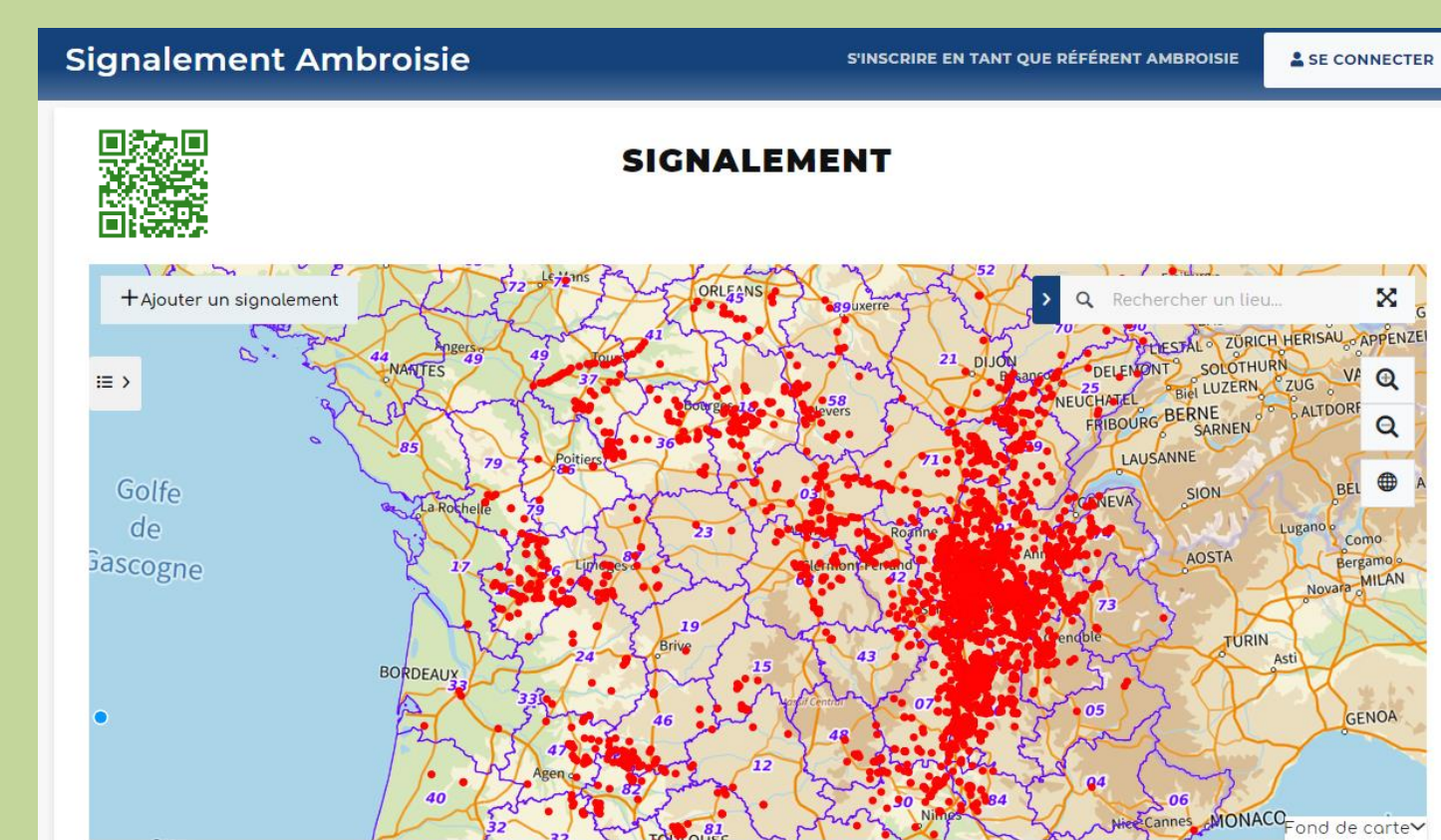
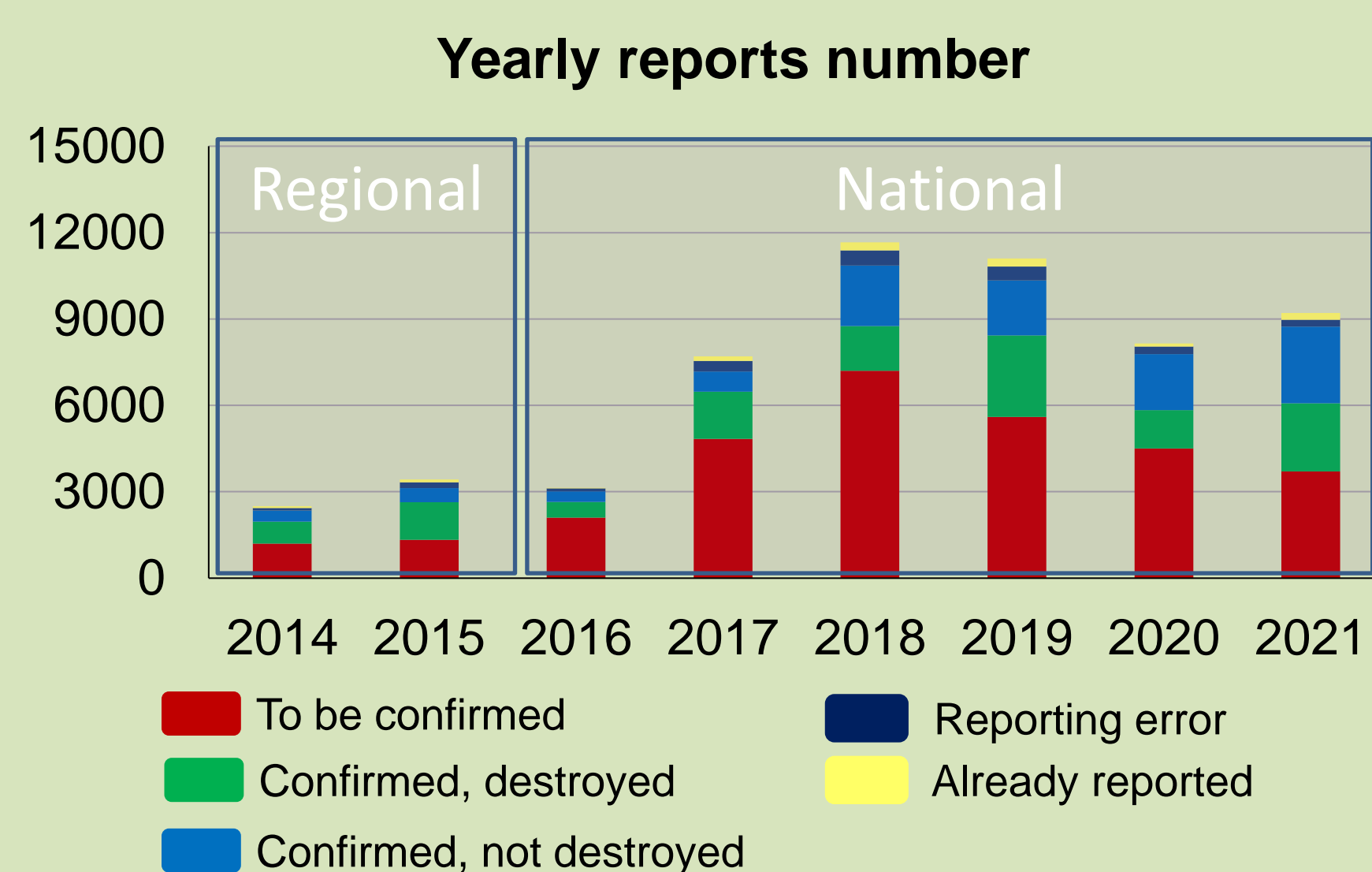
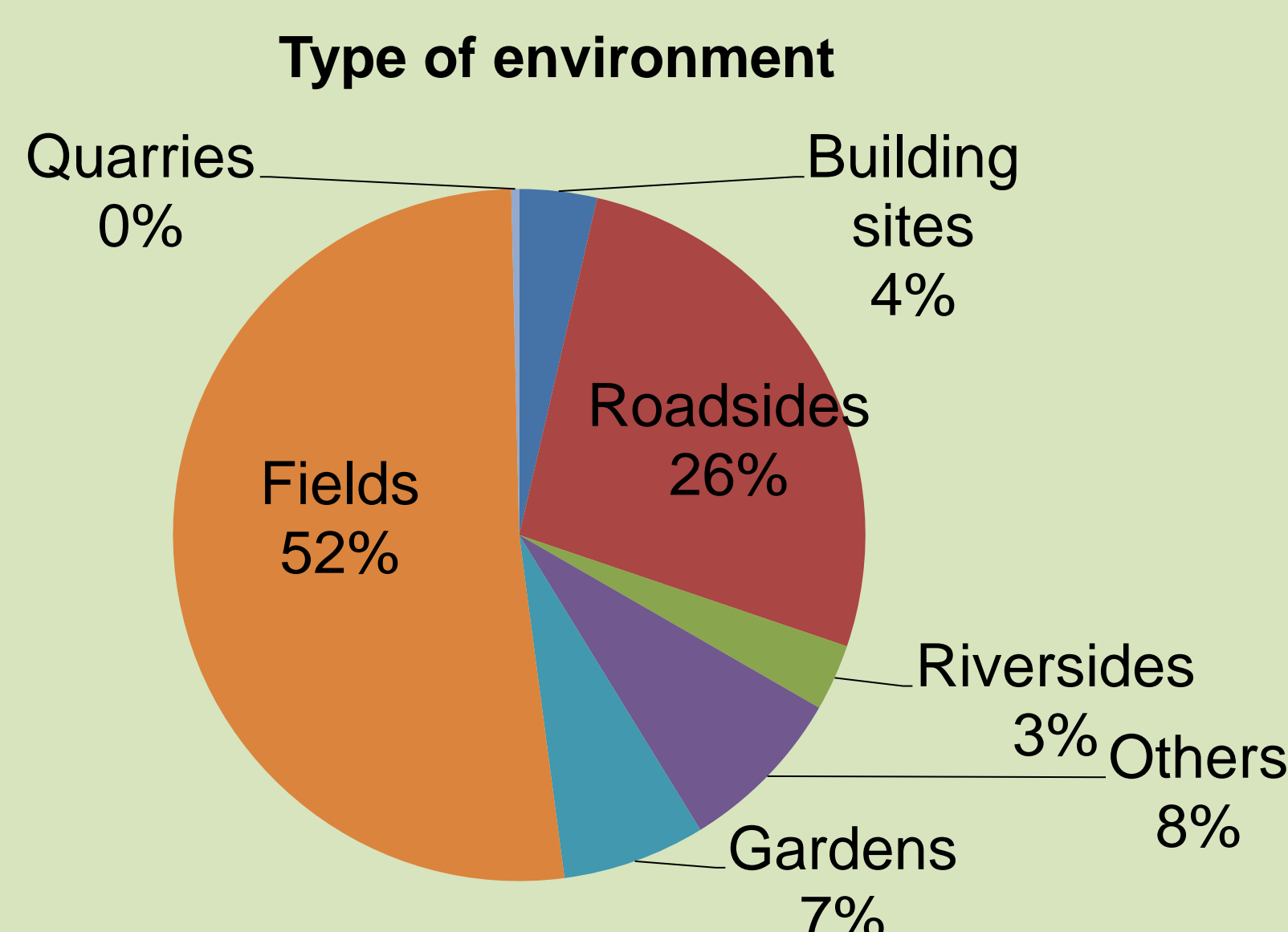


Fig.5 Website

RESULTS / DISCUSSION



Until the platform was dedicated only to the most infested area (2016), the reports number was around 3 000 by year. Since the platform has been used on the whole country, the number of reports is frequently above 8 000 by year. Referents who received the reports should confirm if it really concerns ragweed and if the plant has been destroyed or not. These statistics are a bit biased because referents not always indicate that they went on the field to confirm and destroy the plant.



On which kind of land are there the most reports?
By far, it is in the fields that we get the higher percentage with more than 50% of the reports. Then, the roadsides represent more than 25% of the reports. Representing less than 10% each, gardens, building sites and riversides can be location where ragweed is present. But these locations are not easily reachable by people and it is therefore difficult to get reports in these cases.

CONCLUSION

The platform is a dynamic management tool of the presence of ragweed (tracking, monitoring; etc.) and allows everyone to be active in the fight against ragweed and represents a positive communication support. Moreover, for the "supervisors" of the fight against ragweed, "Signalement-Ambrosie" allows the collection of a large-scale ragweed data in order to generate the map of the presence of the plant.