



Forest 112

people as fieldworkers

Who & Why

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Professionals working at Irdetec are NOT researchers in Forestry or specialists in environmental issues. We are ICT professionals with wide and extensive experience in consulting, designing & developing information systems.

Usually we build ICT tools that help our clients to meet their corporate needs but right now we have decided to do our best to answer a more general problem that is affecting everybody. Inspired by personal interest and involvement in environmental issues we hope that we can make a relevant if modest contribution to tree pest & disease warning systems

We have come here to show our work, align with domain strategies and ask your collaboration for project diffusion & dissemination. Any suggestion or contribution will be welcome....specially those concerning content. related issues

Forest112 Members

Marta Canton (MS Physical Sciences)

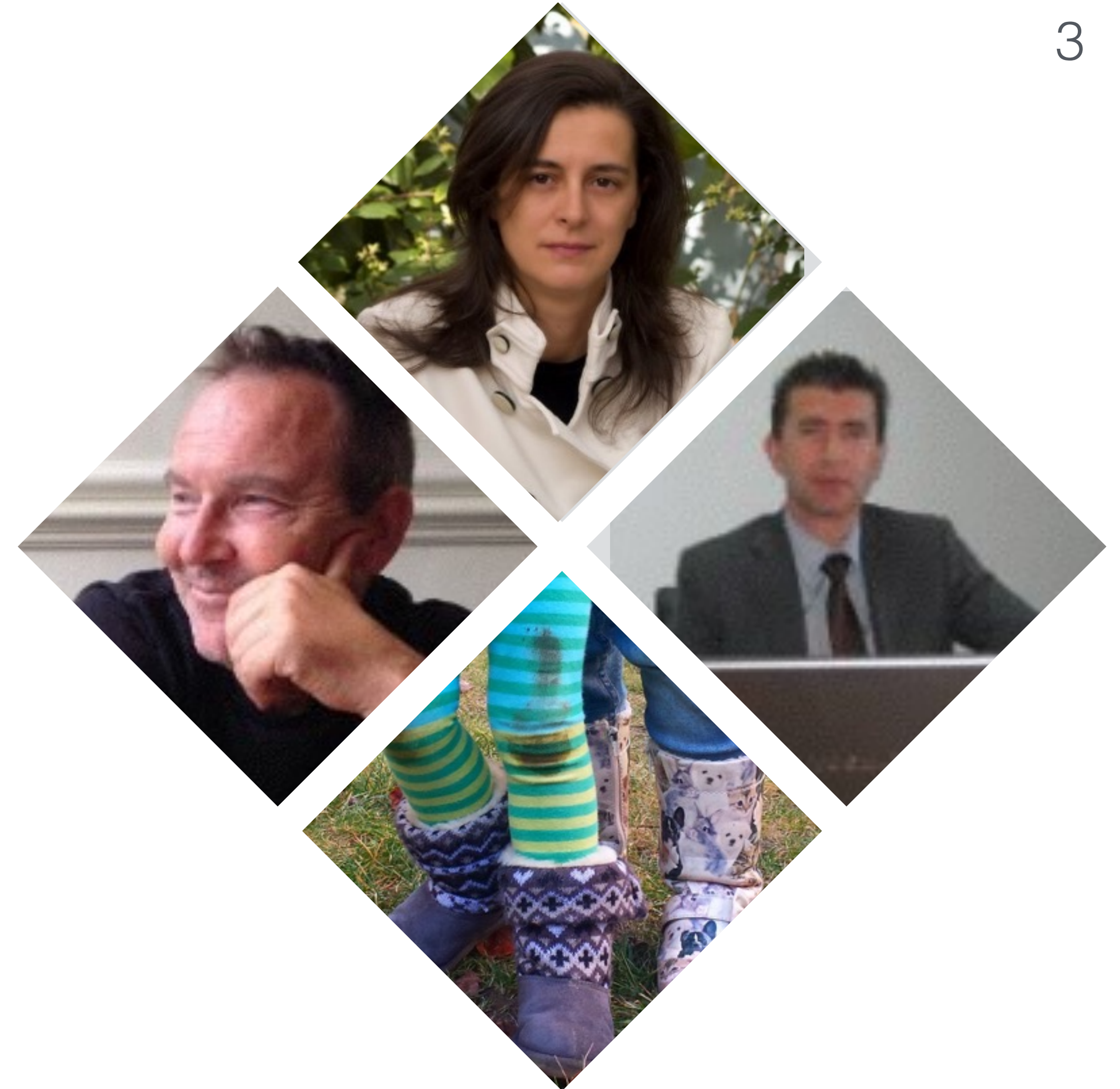
Forest112 Manager

Joaquín M. Fernandez Gonzalez (MS Agricultural Engineer)

Forest112 Business Development Director

Javier Tabernero (MS Physical Sciences)

Forest112 Chief Technology Officer



You Know The Problem



Native and introduced pests pose one of the greatest threats to this planet forests (FAO reports on forest ecosystems management),

New forest pests continue to materialize due to increasing international trade volume and transport speed, despite many improvements in phytosanitary protection

Forest pests are a global problem and therefore national Forestry Authorities have to look beyond national borders to develop effective solutions.

Effective comprehensive monitoring of forest ecosystems is an expensive process, which makes it almost unachievable to rightly integrate risks of pest outbreaks in national management plans

Information availability on forests significantly affected by pests and diseases continues to be poor and data collection methods are highly variable and (at best) questionable.

New methodologies & tools need to be devised to collect and analyse data on particular pests and diseases.

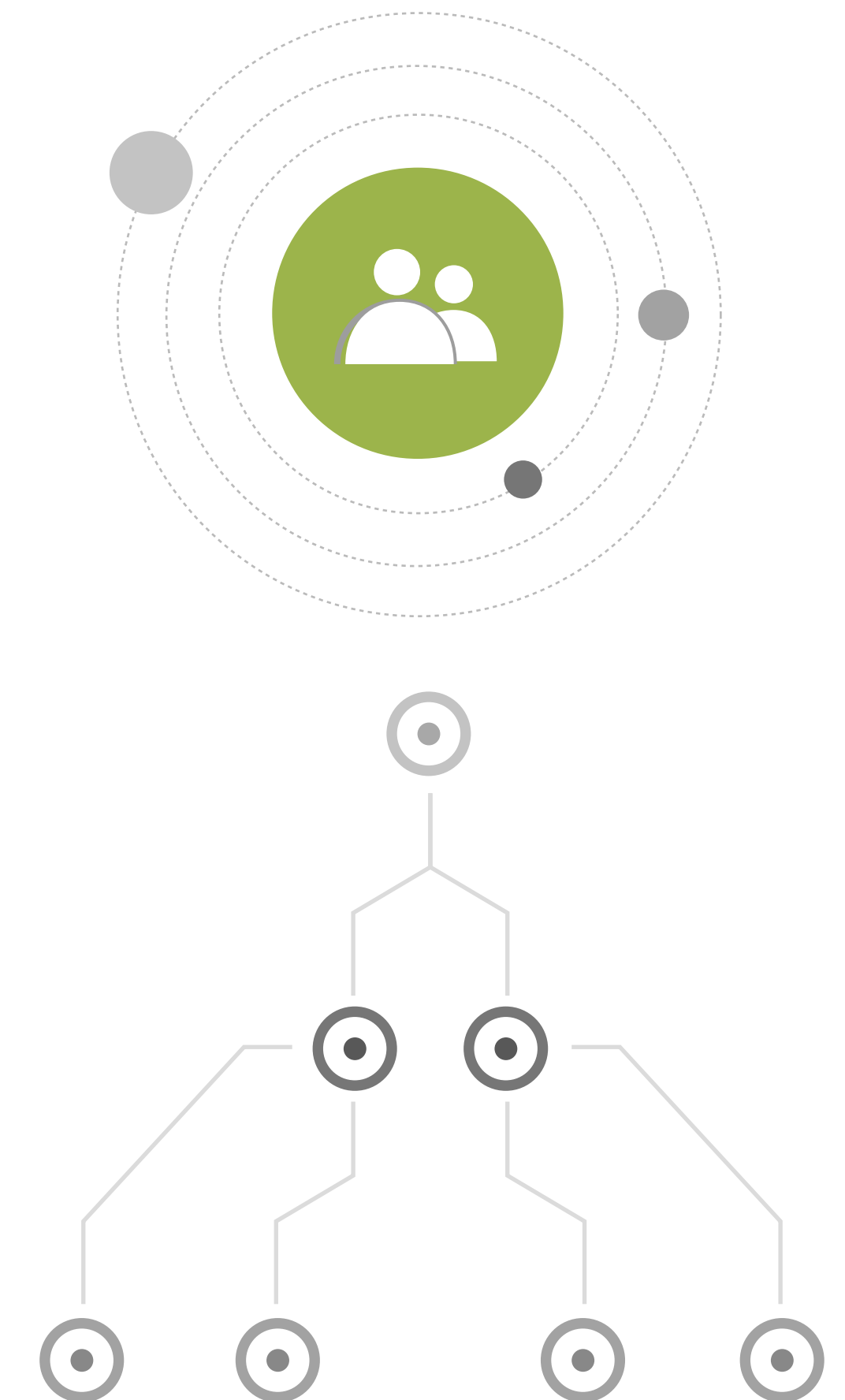
Our Bit To Solve It

Forest112 tries to be a “Citizen Science” working instance where, as stated by Commission “Green Paper on Citizens Science in Europe”, general public would engage in scientific research.

- Forest112 participants will collect data for final researchers
- Raise new questions and Help to co-create a new scientific culture.
- While adding value, these Forest112 volunteers would acquire new learnings and skills, along with a much deeper understanding of the scientific work involved in forest pests control and management.

Volunteers collaborating with Forest112 platform can be not only individuals but also associations and groupings of individuals that may have a strong and convincing interest in forest ecosystems, such as members of mycological or birdwatching societies, environmental organizations, farmers associations and so on.

According to our experience, also specific professional users such as forest managers can act as quite effective volunteers



The Platform

Mobile App

Where volunteers will report pertinent info about pest/diseases found during their field visits. This info is spontaneously provided by volunteers and once stored in Forest112 data base could trigger alert generation and definition managed by scientific teams.

Researchs App

Researchers will lead the data collection, mainly in two ways: through general alerts directed to wide target groups or field data collection for traditional "scientific field studies"

Learning App

Once executed data collection campaigns, the platform module will help scientists team to monitor and evaluate volunteers performance, giving corresponding feedbacks and reports.

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Forest112 Mobile App

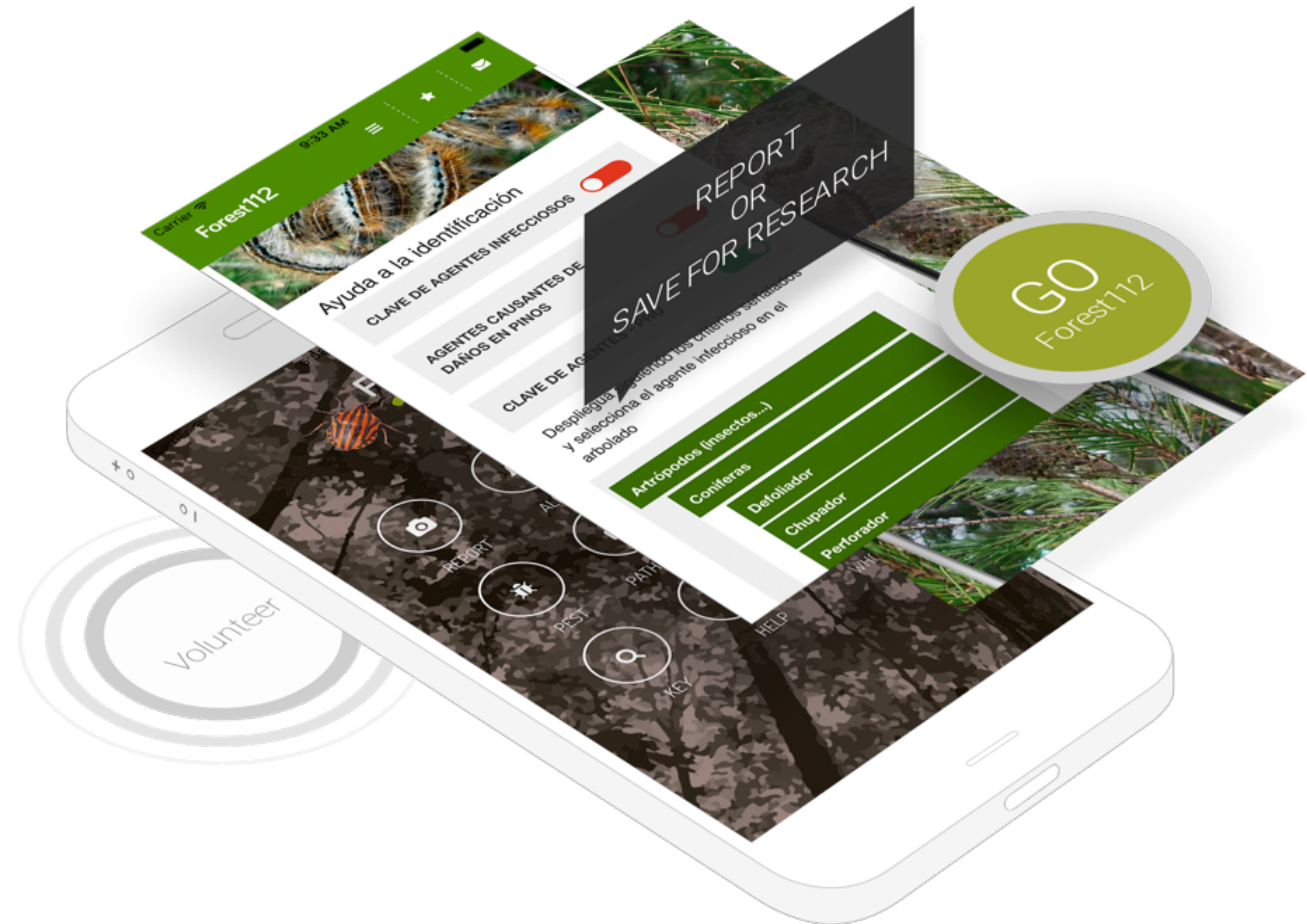
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Volunteer App Report

User takes a photograph of any pest, disease or invasive species that they think worthwhile to inform about and fills up a small identification form, while report location, date & hour are automatically recorded.

This report could be sent directly to system database or kept locally to allow a further study or analysis, after which it could be finally sent.



Researchers Send Alerts

Users can receive in their apps those alerts launched by researchers and affecting specific problems that scientists want to study and analyze.

This alert can involve an species, a geographical area (big or small: Natural Park, botanical garden, etc.) or a time frame. Alerts will define problem, study area and preferred volunteer profiles (standard, professional, skills needed and so on)



More Features

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01. Identification

Volunteers have at their disposal different tools (Identification keys, tables, lists and so on) to help them to rightly identify pests, diseases or invasive specie. Each species identification is linked to a Google search.

02. View Report Map

Users can see located on the map all reports submitted to Forest112

03. Download Dossier Of My Reports

Users can download a complete dossier with all submitted reports...A feature quite useful to evaluate users performance

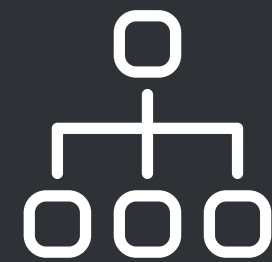
04. Usage Help

System always helps users to use application and there is also a tutorial to show how best take usefull photographs



Professional Profiles

Platform allows professional profiles (forest managers, researchers, etc) to log in, and platform itself becomes a useful tool to evaluate them



Profile Evaluation

Users skills and reliability can be evaluated through algorithms analyzing their report quality



Profile Training

Platform will implement a significant portfolio of training modules that users follow to improve their skills.

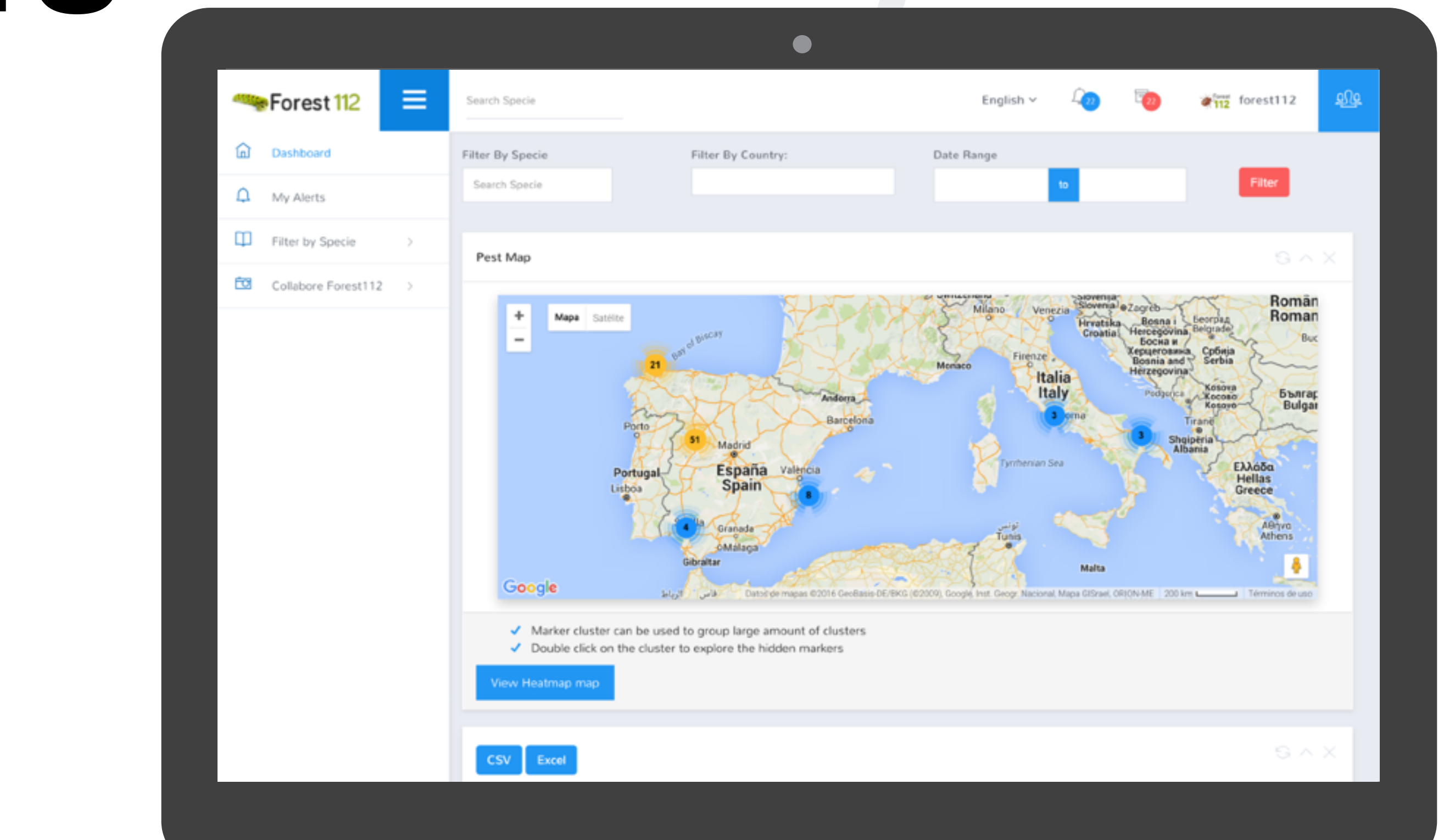
Citizen Science User Evaluation

One / 1.000
2 Reports / Month
12.000.000 Data / Year

Forest112 Researchers App

Using this module researchers can (among other functionalities) filter and sort all system data, according to preferred criteria: tree species affected, time frame, geographical area and so on

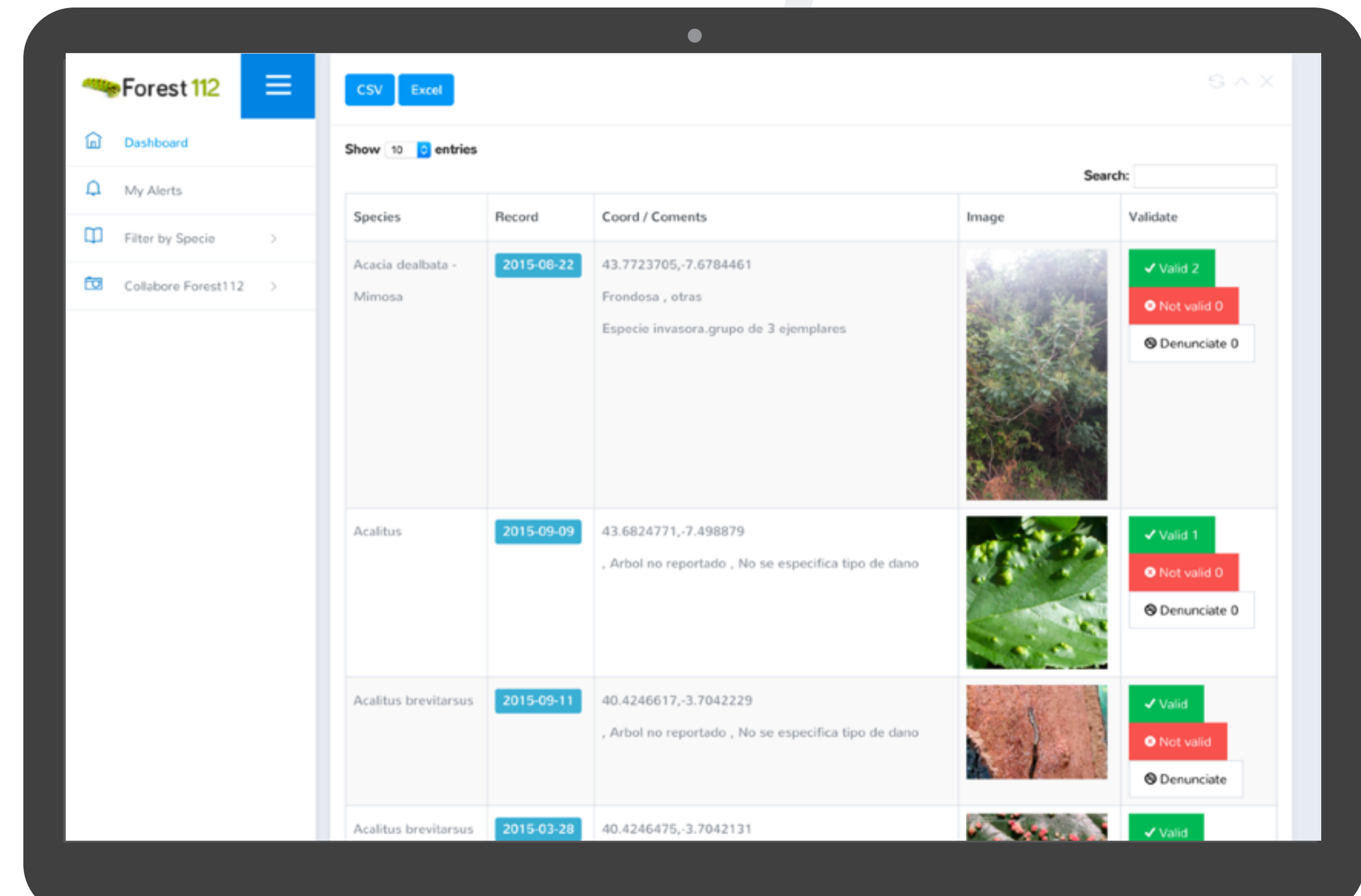
Researchers always can pick up and evaluate individual reports, that can be accepted, corrected or even rejected. Once filtered and approved, data can be exported to any kind of files to ease further treatment. A broad selection of tables and reports are available to show reports evolution in time and/or space



Big Data Analysis

In Forest112 platform there is an specific module devoted to Big Data analysis and involving huge volumes of data that can help to reveal patterns, correlations or meaningfull information usually hidden in multi-format, unstructured data.. Obviously this kind of analysis can be key when treating such heterogeneous data as those involved in platform reports, giving helpful cues & suggestions to researchers involved.

So main objective pursued by BigData module is to provide tools to scientific teams to help them efficiently perform massive data analysis, involving not only platform data but also other data sources unused in more conventional analysis procedures.




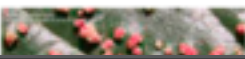


Forest112

CSV Excel

Show 10 entries

Search:

Species	Record	Coord / Coments	Image	Validate
Acacia dealbata - Mimosa	2015-08-22	43.7723705,-7.6784461 Frondosa , otras Especie invasora.grupo de 3 ejemplares		<div>Valid 2</div> <div>Not valid 0</div> <div>Denunciate 0</div>
Acalitus	2015-09-09	43.6824771,-7.498879 , Arbol no reportado , No se especifica tipo de dano		<div>Valid 1</div> <div>Not valid 0</div> <div>Denunciate 0</div>
Acalitus brevitarus	2015-09-11	40.4246617,-3.7042229 , Arbol no reportado , No se especifica tipo de dano		<div>Valid</div> <div>Not valid</div> <div>Denunciate</div>
Acalitus brevitarus	2015-03-28	40.4246475,-3.7042131		<div>Valid</div>

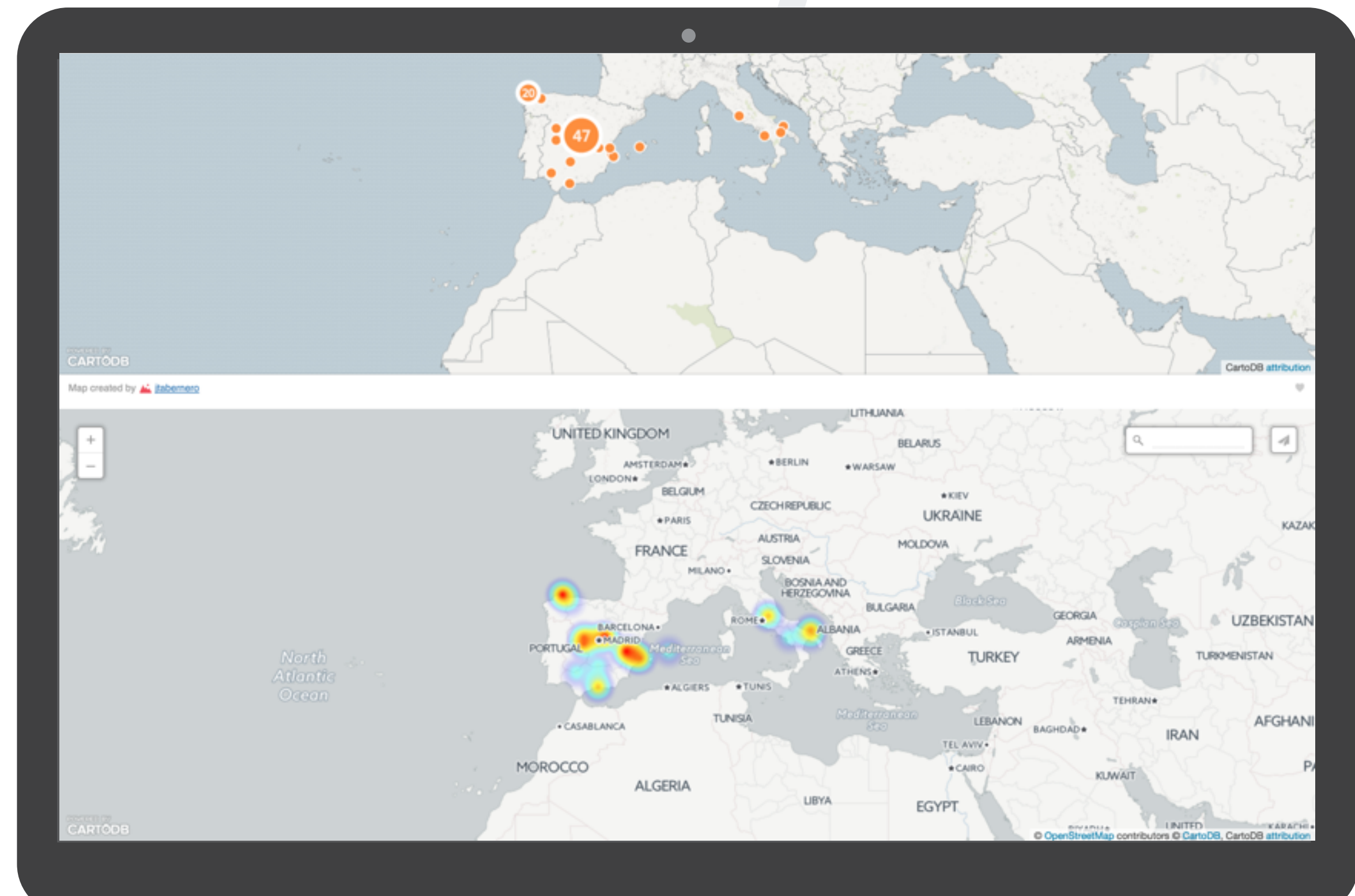
Visual Data Analysis

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Many BigData analysis can involve usual Forest112 data but also data from Public Authorities sources, IoT, context data and so on.

BigData analysis can help to detect occurrence patterns in (for instance):

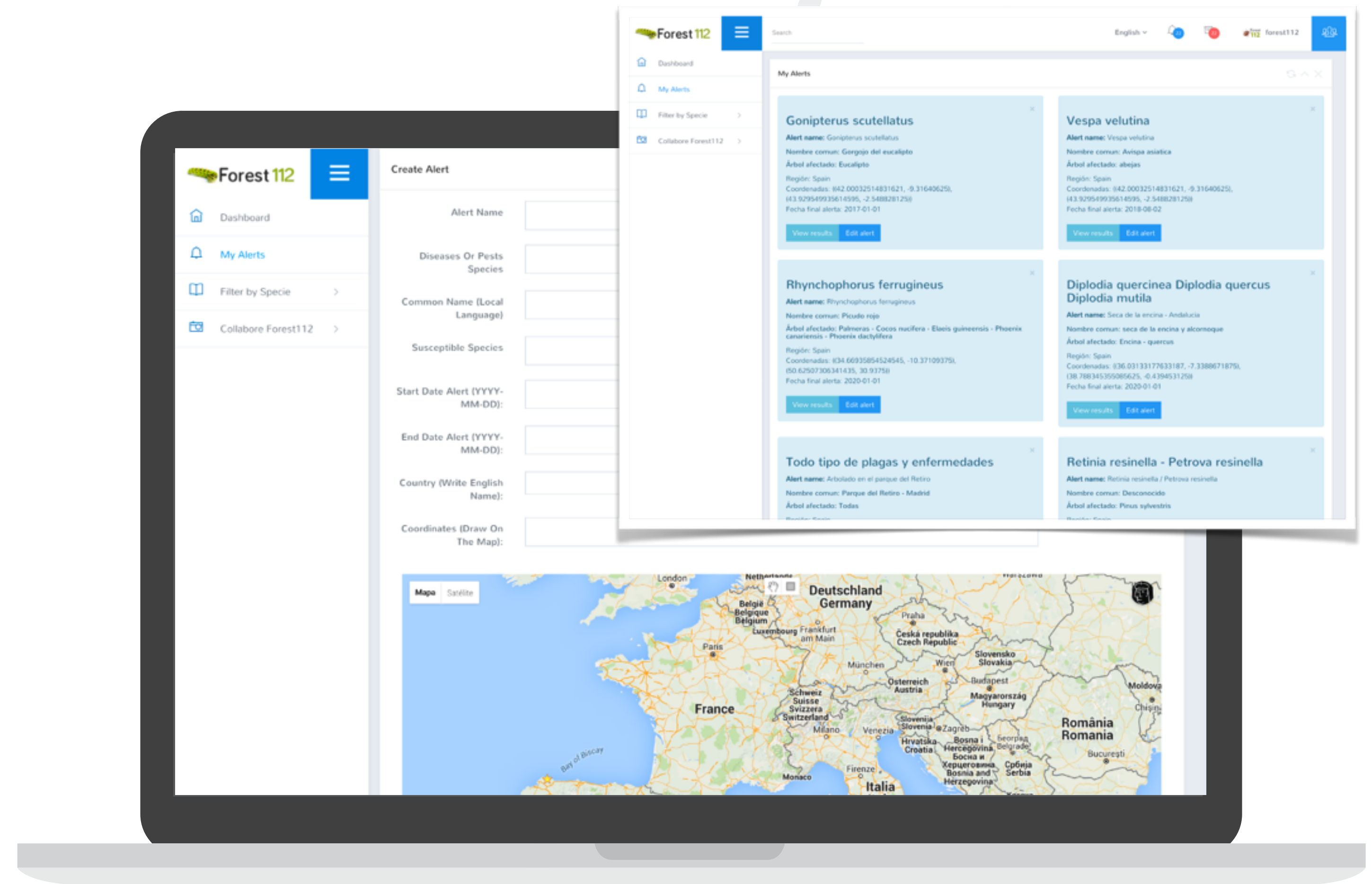
- Occurrence patterns of Invasive species in road medians & round points
- Or invasive species when garden centers are located close by
- Or aquatic invasive species in neighbourhood of ports with specific international trade



Create Alert

Researchers can launch alerts affecting those specific problems they want to study and analyze.

They can discriminate among profiles, selecting those that they want to get involved in a given alert (open to all, only for specific skills and so on) and they will also be able to send any suggestions or recommendations to perform those alerts.



Forest112 Learning App

Main objective of Forest112 Learning Module is to provide relevant environmental content and training to platform users.

Obviously Forest112 cannot compete with institutions or agents already dedicated to formal training or education in related fields. But this platform want to be a place where users can find and get info about forest pests and diseases that could be useful for their fieldwork. To make that possible platform will provide different courses about selected diseases (most common in a given time/area, most dangerous and so on)

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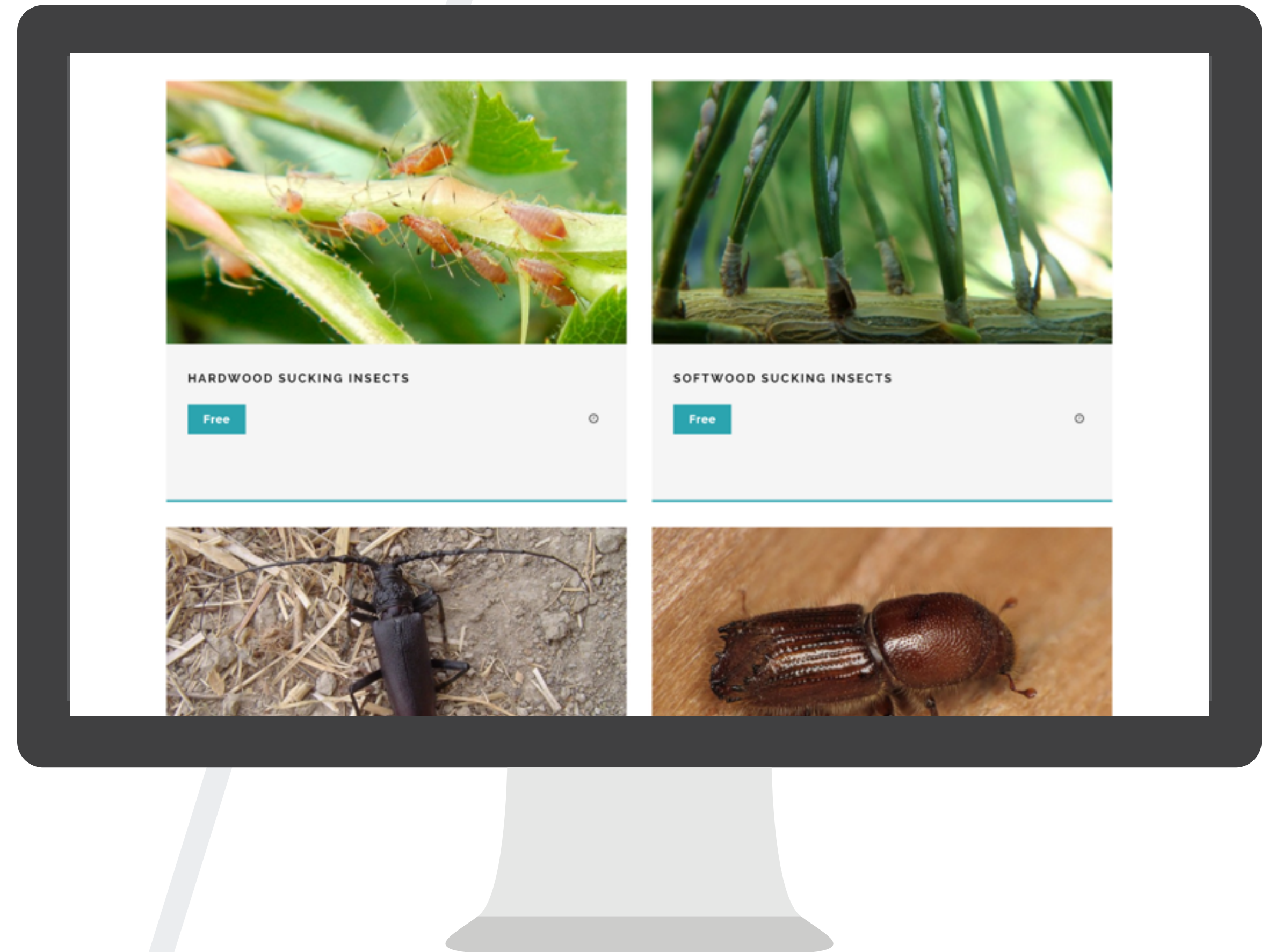


Courses Interviews Field Trips

As a meeting point, Forest112 will also become a place where users can find a window to meet researchers and appreciate their work. So platform will produce interviews with researchers where they can explain and detail experiences or studies that can improve public involvement in environmental issues and forests problems awareness in general..

Following a more or less conventional pattern, those interviewed researchers could extensively express their opinions and experiences in their field of work.

Platform will be also a place where all kind of platform users can organize different events (field trips, bioblitzs and so on), helping them to maximize their impact in social networks



Contact Us Download App

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Attention**

