

# Development of Generic 'On-site' Molecular Diagnostics for EU Quarantine Pests and Pathogens: PortCheck



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[www.portcheck.eu.com](http://www.portcheck.eu.com)

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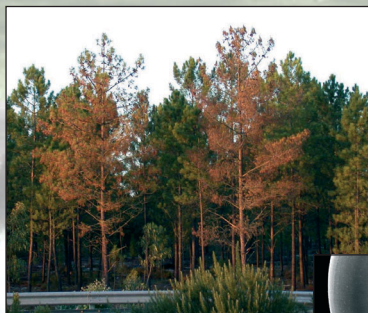


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## Aim

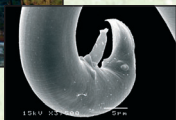
To provide EU inspection services with state-of-the-art molecular diagnostic assays for detecting key quarantine pests and pathogens on site and at ports of entry.



Photos courtesy of M Mota and AR Santos, Universidade de Évora

## Background

The introduction of non-indigenous pests and pathogens of plants and plant products into the European Union (EU) can severely impact cross-border trade. The current methods used to detect quarantine organisms have several drawbacks, such as being limited to certain pathogens and being slow or needing bulky equipment. There is a need for a generic, fast and portable tool to detect and identify quarantine pests and pathogens at points of entry.



## Methods

Molecular diagnostic methods, including sampling, extraction and detection are under development for pests/pathogens of quarantine importance; including *Bursaphelenchus xylophilus* (pinewood nematode) and *Phytophthora ramorum* (sudden oak death). The protocols are based around real-time PCR technology, using portable instrumentation initially developed for military and homeland security applications.



## Consortium

The consortium consists of 39 partners from 19 different countries, including research organisations, inspection services and 4 SME partners. The final year of the project will be dedicated to ring-testing of the protocols developed in a representative selection of key European Plant Health competent laboratories and inspection agencies.

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