# Background

Security considerations are nowadays an important and integrated part of all software development, and all parts of the development process. For efficiency and quality reasons it is useful to have tools support that verifies the code against some standard and notifies the developer on potential security flaws.

# Description

This thesis work addresses one or two informatics or MSc students. The work shall normally be performed to at least 50% in Triona's premises at any of our office locations. Working hours are normal office hours with flextime.

The task consists of investigating a number of different tools for secure coding and comparing different aspects such as:

- Security Coverage – which standards can the tool verify against?
- Usability – is it simple to use the tool and easy to find and understand the detected security flaws?
- Deployment and operation – how does the tool integrate with the development environment or build pipeline?
- Cost

The thesis work shall contain both literature studies and hands on testing of the different tools. Examples of standards that shall be included are CWE Top 25 and OWASP.

# Result

The result is presented as a report describing the different alternatives and the comparison.

# Budget

Triona supplies a supervisor and assures that the students have appropriate tools (computer etc.) and a workplace. Costs for the tools to test can, if it is not too high, be taken by Triona if there is no possibility for a trial period, or if it is too short or otherwise limited. Tools that are too expensive to evaluate are most likely too expensive to be used too.