Automation of testing is here to stay. Whether XML-messages are created by a home-grown tool, unit testing is automated in Test Driven Development or regression testing is being automated in Agile projects: most testers are involved in test automation and using tools to support their daily work. This also applies to Polteq.

What is different, is the way Polteq approaches test automation. Before going into the details of automation or tooling, the initial step is analyzing what issues need to be solved and what (realistic) goals can and must be achieved by test automation. Polteq has developed [Test Improvement **4** Automation (TI**4**Automation®)](#), a dedicated approach to implement and improve test automation. Based on the analysis, the actual test automation activities – as described below – are performed. The technical test professionals of Polteq provide support in all of these activities.

# Determine goals and select test tools

Tool selection is based on analyzing the context (what is to be automated and what work process needs to be supported) and the environment in which the tool needs to operate. For most situations, the current market offers a wide range of tools with various cost models (license based, open source, freeware, shareware, …). Tooling is selected in cooperation with the stakeholder based on a checklist (acceptance criteria), tuned to the context and environment.

# Implementation of automated testing

The implementation of automated (regression) testing in general requires the following items:

- a framework containing the test cases, test data and test configuration;
- an abstraction layer that enables automated test scripts to access the functionality of the test object;
- a driver to perform and execute tasks on the test object.

For each of the above mentioned items, the best suitable option (e.g. tools, programming language) is chosen. A test automation expert takes care of the actual implementation.

# Scripts, execution and management

After successful implementation of automated testing, the selected test cases are automated within the framework. Automated test runs are executed, either manually or automatically (e.g. after each build). The results of each run are analyzed and defects are logged. A good framework enables test engineers with limited development skills to perform the necessary

maintenance to keep it up-to-date and running.

# Training and coaching

Polteq offers various training courses in the field of test automation. The central issue is creating, executing and managing test scripts. Our specialists do not only carry out all the activities within test automation, but also coach your employees so that they can utilise it themselves.