TI4Automation: Test Improvement for Automation

Improving product quality and reducing costs are necessary. Shortening time-to-market in combination with more frequent releases are an irreversible trend. It is impossible to achieve these goals without test automation. Since true success stories are scarce, Polteq has developed TI4Automation: the approach for successful implementation and improvement of test automation based on hands-on experiences and good practices.

What is TI4Automation?

Essential characteristic of TI4Automation is the stepwise implementation and improvement of test automation, tuned to its context.

- **Define realistic goals**
  When is test automation successful? What deadlines have been set? Which resources are available?
- **Develop the business case**
  To what extend does test automation contribute to achieving the defi ned objectives, now and in the future?
- **Analyze the context**
  Test automation has to be in line with the followed test, development and maintenance approach.
- **Create an architecture**
  Successful test automation tightly fi ts in with the technical landscape. A good architecture is crucial.
- **Automate and organize**
  Implementation and improvement of test automation, including tool selection, require a team with the right mix of skills and expertise.
- **Innovate and renovate**
  Test automation is successful if it is sustainable. Budget and time are needed for continuous optimization.

Applying TI4Automation

In order to define the test automation solution that best fits in the context, an assessment is performed.

TI4Automation contains ten key areas, each with a number of checkpoints to define the current and the required test automation maturity per key area. The key areas together cover all essential aspects of test automation.

Key area		Forming				Norming				Performing			
1	Automation strategy	1	2	3	4	1	2	3	4	1	2	3	4
2	Automation architecture	1	2		3	1	2	3	4	1	2	3	4
3	Automation standards	1	2		3	1	2	3	4	1	2		3
4	Automation scripts	1	2		3	1	2	3	4	1	2		3
5	Team	1	2		3	1	2	3	4	1	2		3
6	Test environments	1	2	3	4	1	2	3	4	1	2	3	4
7	Test data	1	2		3	1	2	3	4	1	2	3	4
8	Tooling	1	2	3	4	1	2	3	4	1	2		3
9	Tool integration	1	2	3	4	1	2	3	4	1	2		3
10	Planning and estimation	1	2		3	1	2	3	4	1	2		3
		Set the basis and the first steps towards automated tests				Facilitate integration of test automation in the test process				Continuously improve test automation by applying lessons learned			

Senior test automation consultants of Polteq perform a TI4Automation assessment and define the desired test automation maturity level including the necessary steps to achieve that level.