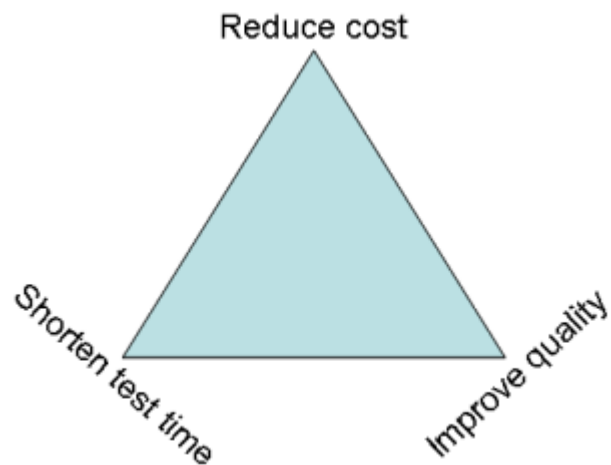


# THE COST OF TEST AUTOMATION

Over the past few posts I have written a lot about test automation, however one very important subject I have left out thus far. What is the actual cost of test automation? How do you calculate the cost of test automation, how do you compare this cost to the overall costs of testing? In other words, how do you get to the return on investment people are looking for? First thing that needs to be covered if you want to know and understand the costs of test automation is a CLEAR understanding of the goal. Typically there are three possible goals:

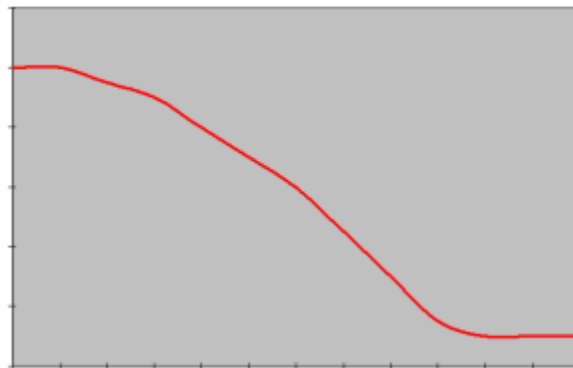


1. reduce the cost of testing
2. reduce the time spent on testing
3. improve the quality of the software

These three have a direct relation with each other, and thus each of them also has a direct impact on the other two depending on which one you take as your main focus. In the next few paragraphs I will discuss the impact of picking one of the three as a goal.

## Reduce the cost of testing

When putting the focus of your test automation on reducing the overall cost of testing you set yourself up for a long road ahead. There generally is an initial investment needed for test automation to become cost reducing. Put simple, you need to go through the initial implementation of a tool or framework. Get to know this tool well and ensure that the testers who need to work with the tool all know and understand how to work with it as well. If going for a big commercial tool there is of course the investment in purchasing the license, which often ranges between 5.000 and 10.000 euros per seat (floating or dedicated). Assuming more than one test engineer will need to be using the tool concurrently, you will always need more than one license. This license cost needs to be earned back by an overall reduction in testing costs (since that is your goal). An average investment graph will look something like this when working with a commercial tool:



The initial investment is high, this is the cost of the licenses. At that point there is nothing yet, no tests have been automated yet and you have already spent a small fortune. The costs will not drop immediately, since after the purchase the tool needs to be installed, people need to be trained etc. Next to it, all the while no tests have been automated, thus the cost is high, but the return is zero. Once the training process has been finished and the implementation of the automated tests has started the cost line will slowly drop to a stable flatline. The flatline will be the running cost of test automation, which includes the cost of maintenance of the tool and the testscripts and of course the cost of running tests and reviewing and interpreting the reports.

A particular post in a [LinkedIn group](#) with the ominous question “Who’s afraid of test automation”, one of the more disturbing responses was as follows (and I am quoting from the group literally, with a changed name however):

Q: Who’s afraid of test automation?

A: Anyone with headcount. What would it look like if all of the testing is done by machine and there is only one person left in the organization?

The idea that test automation will take away testers’ work completely and as such will reduce the running costs of a test team drastically is a common misconception which takes too much time and effort right now to address. But in short, Test automation may reduce some of the workload, but will not be able to reduce your cost of testing by removing all of the testers, nor should this ever be your objective.

Source : <http://martijndevrieze.net/2012/07/11/the-cost-of-test-automation/>