

The logo for VDAB, consisting of the letters 'VDAB' in a bold, blue, sans-serif font. The letters are centered between two horizontal blue bars, one above and one below.

# REFERENCE CASE

A large, stylized version of the VDAB logo in white, set against a bright blue background. The logo is partially obscured by a white rectangular area on the left side of the page.

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<sup>2</sup>  
**M<sup>2</sup>Q**  
Test. Check. Go!

# VDAB is the Flemish Service for Job Placement & Professional Education

VDAB is 'Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding' (Flemish Service for Job Placement & Professional Education') and is the Flemish service for employment.

It has counterparts in Brussels (Actiris), Wallonia (Forem), and the German part of Belgium (Arbeitsamt Ostbelgien). It also works together with job sites (Jobat, Stepstone), and the European Union.

## VDAB has 3 main focusses

The 3 main focusses are:

- Jobs
- Training
- Orientation

Job focusses on finding a job, giving job suggestions, applying for a job including tips and tricks, saved searches, etc...

Training focusses on finding a training or curriculum, free and paying options, online learning, test your skills and knowledge, learning and working, ect...

Orientation focusses on which job fits me, career guidance, what to do if you just left school, temporary unemployed, etc...



**VDAB**  
samen sterk voor werk

## Our Role in the Organisation

The role of QA Officer was created by the VDAB after an external assessment that identified the need to have someone that focusses on quality across all teams. The initial objective was to hire someone internally but because the position must be filled quickly, an external person was hired from M2Q.

Our role consisted of 3 parts being

- Focus on and introducing of quality within the IT Department, IT Teams and processes
- Delivery manager for major cross team projects
- Part of the Extended Leadership Team



**WOW!**  
WAT JE  
ALLEMAAL  
KAN MET  
VDAB

# The Environment

The IT department of the VDAB is largest IT department of the Flemish government. The department consists out of 450 people existing out of mix of internal & external employees.

The initial focus was on the Software Factory (SWF) which is the IT department that focuses on in-house development and COTS implementation. This is a department of around 225 people.

SWF consisted of around 15 teams which a hybrid form of scrum meaning that some parts of the SDLC uses still a waterfall approach whilst others use scrum.

The teams were primarily component teams which created the necessity to closely work together to implement business requirements that go across various application. This is where the role of delivery manager was quite important.

Finally, the IT Extended Leadership was identified and put in place to identify new cross IT projects, create the business case, and get approval for the project implementation.

**Bij sommige  
keuzes sta je  
liever even stil**



# Challenges

The focus from our perspective was on several specific challenges. These challenges were resolved, mitigated, removed, etc... by the actions in our solutions.

Some examples of the major challenges were:

- Focus was on testing and not introducing quality
- Regression was team and project dependent
- No clear insight on the defects found in non-production
- No testing status
- No insight on the quality level of a team
- There is no guidance around quality and testing
- Tools are sub-optimally used
- No transparency on team dependency and when dependencies should be ready
  - Example of dependency – one team must deliver data through an API like job preferences to another team so they can use the data to provide suggestions.
- No indication of when a story/epic is finished, or enough effort has been introduced.
- Non-Functional Requirements (NFR's) are ad-hoc introduced
- No cross organization of project including testing
- Etc...



# Our Solutions

Several initiatives were undertaken and implemented to improve quality and transparency of all delivered software, applications and services by SWF. The initiatives are listed in a random order.

- Introduction and coaching of test coordination for cross team projects ensuring that business/technical end-to-end tests are executed on top of the other tests.
- Took the coordination & organization of cross team projects whilst team leaders remained responsible for their delivery. Besides ensuring dependencies are managed and committed. We introduced also transparency in the progress of various projects by creating the required reporting.
- Created, introduced and implemented a Quality Assurance Mission, Vision and Strategy focusing on why, what and how a quality objective is realized.
- Created and implemented a QA Test policy and test strategy which helps people to understand why we test, and that a standard test approach helps deliver better quality. Some examples that are in the policy and strategy are the context and objective, standard approach, risk analysis, test planning and test execution.
- Defect Management Process was implemented in 2 phases. The first phase implemented a basic process that allowed to capture defects found in non-production but integrated also production defects once they are managed by the development team. It also allowed to prioritize the defects using severity and priority. The 2nd phase was the implementation of feedback captured during the use of the 1st version. It also allowed to measure the initial success and focus on what required improvements.

- Identified the need for an improved test management tool that integrated better with the development tools and reduced the administration. Organized a workshop with the Quality & Test team to identify the needs from various actors and needs.
- The QA Maturity Model (QAMM) was specifically created to the need of VDAB. It has 5 levels going from focusing on testing going to predictive quality. Key difference with other maturity model is that the outcome is a list of actions a team must take to improve their maturity and not just following a process. The focus was on the teams and assist the teams in producing better quality. It was not the objective to compare teams as each team had too many specificities. However, the possibility was created to consolidate the results at the department level.
- In addition to the QAMM, a Test Automation Maturity tool was created to help the test automators to improve the quality, efficiency, and effectivity of the automated tests.
- Initiated and managed a test automation project approved by senior management of the VDAB. The project was split into 2 parts being:
  - A test automation project that had as objective to increase and improve the level of test automation across all teams. Key performance indicators were set-up to measure the benefits of the projects (e.g., 10% increase of automated tests). Key was that the project steps were planned & included in the quarterly team planning and commitment.
  - A test automation by all project that was started to evaluate low code test automation market, select one tool, and implement the tool in addition to the standard automation tool. This would allow to involve more people during the automation of identified tests

**WE OFFER  
SOLUTIONS**





- A regression test approach was created and implemented in each team via the product and sprint backlog. The approach included guidelines for automating the regression tests.
- Prior to our arrival an assessment was done on how quality and testing can be improved (aka QA Maturity Track). We took the lead during the implementation for a few teams and for SWF. In phase 2, we took the lead in defining the content of this phase and implemented this in several teams. Some examples that were part of this track are: Definition of Ready and Done, story refinement process and involvement of the test engineer, acceptance criteria at user story level, insights in unit testing and potential improvement.
- Build a case for and the implementation of a standard Static Analysis of Code & Detect Bugs (aka SAST). The used tool was SonarQube with the initial objective to ensure that all code received a security rating of 'A'. Additional, the target for code coverage for unit testing was set at 80%. The project also included a consolidation from the community edition to a commercial version so consolidated reporting was possible.
- Several smaller realizations were guidelines for test automation, standard approach to test automation, and roles & responsibilities in testing.

## Methods and Techniques

- Agile based principles
- Quarterly planning and follow-up
- Resource planning techniques
- Retrospective techniques like 4L's, dot voting, starfish, marginal gains, etc...
- Project management techniques incl risk analysis to help during the quarterly planning
- Transparency approaches like program board, burn-up, burn-down, velocity, etc...
- Workshop techniques
- Process improvement techniques and approaches