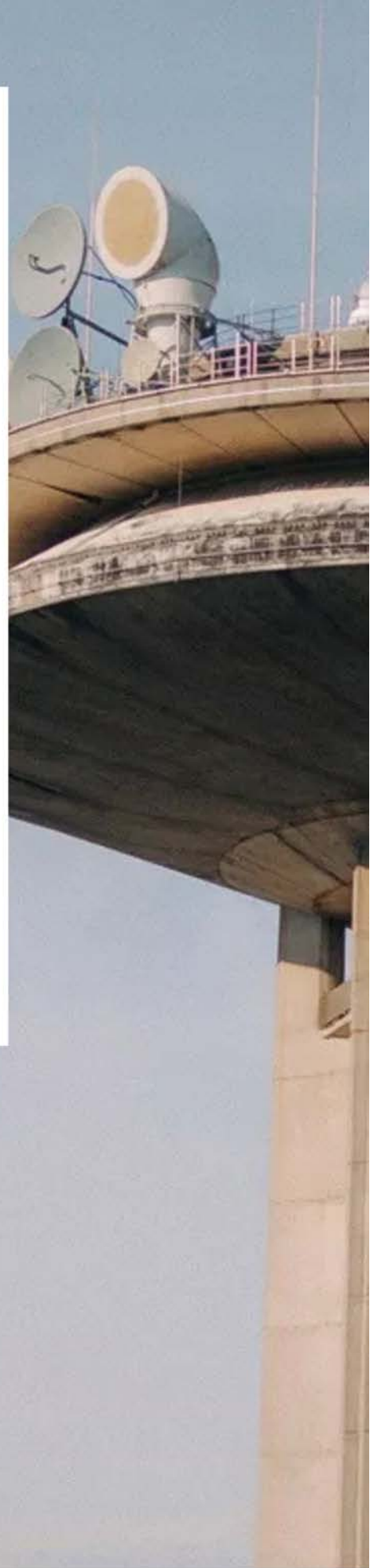


vrt

REFERENCE CASE



M2Q Antwerp
Veldkant 33a
BE - 2550 Kontich

M2Q Kortrijk
Lucky Lukestraat 6
BE - 8500 Kortrijk

E: info@m2q.be
T: +32 3 451 36 60

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M²Q
Test. Check. Go!

VRT Nieuws **the most reliable source** **for impartial and qualitative** **news in Flanders**

VRT Nieuws produces media services around information and news that are relevant for the public (aka the VRT customers).

The news department of the VRT: puts the public interest as the primary driver for their work; uses a clear deontological code; and is redactional independent. Content-related considerations take priority during the selection and presentation of news and other journalistic content. The VRT invests in qualitative and independent journalism. The core values are: reliable; qualitative; accurate; independent from political parties and lobbies; no commercial interests; impartial; and profound.

Key principles used by **the VRT Nieuws**

- The news is adapted to the different target audiences.
- News offering evolves with the use of the various media channels.
- Cooperation with the written press.
- Investment in independent, reliable, and qualitative journalism.
- Contribute to an informed society in Flanders.

To realise the key principles, it uses all its channels and different platforms. VRT-channels increase the news percentage in case an important event occurs like regional elections, or a major calamity. The VRT news service provides through their own channels an audiovisual offering to the Flemish written press. This allows them to use the video material from VRT to underpin their articles. Additionally, it increases the reach of the VRT news offering



Our Role in the Organisation

QA Guerilla is created as an overarching instance. This was done with the support of VRT Digitaal Productie Centrum. QA Guerilla has the following goals:

- Follow-up of all QA Activities across the various development teams.
- Elevate QA to a higher level by evaluation QA activities during certain critical periods (e.g., during the sprints).
- Create and maintain the DCP Test Strategie
- Coaching of the QA Engineers
- Sharing of knowledge

QA Guerilla was created in 2018 with the involvement of M2Q.

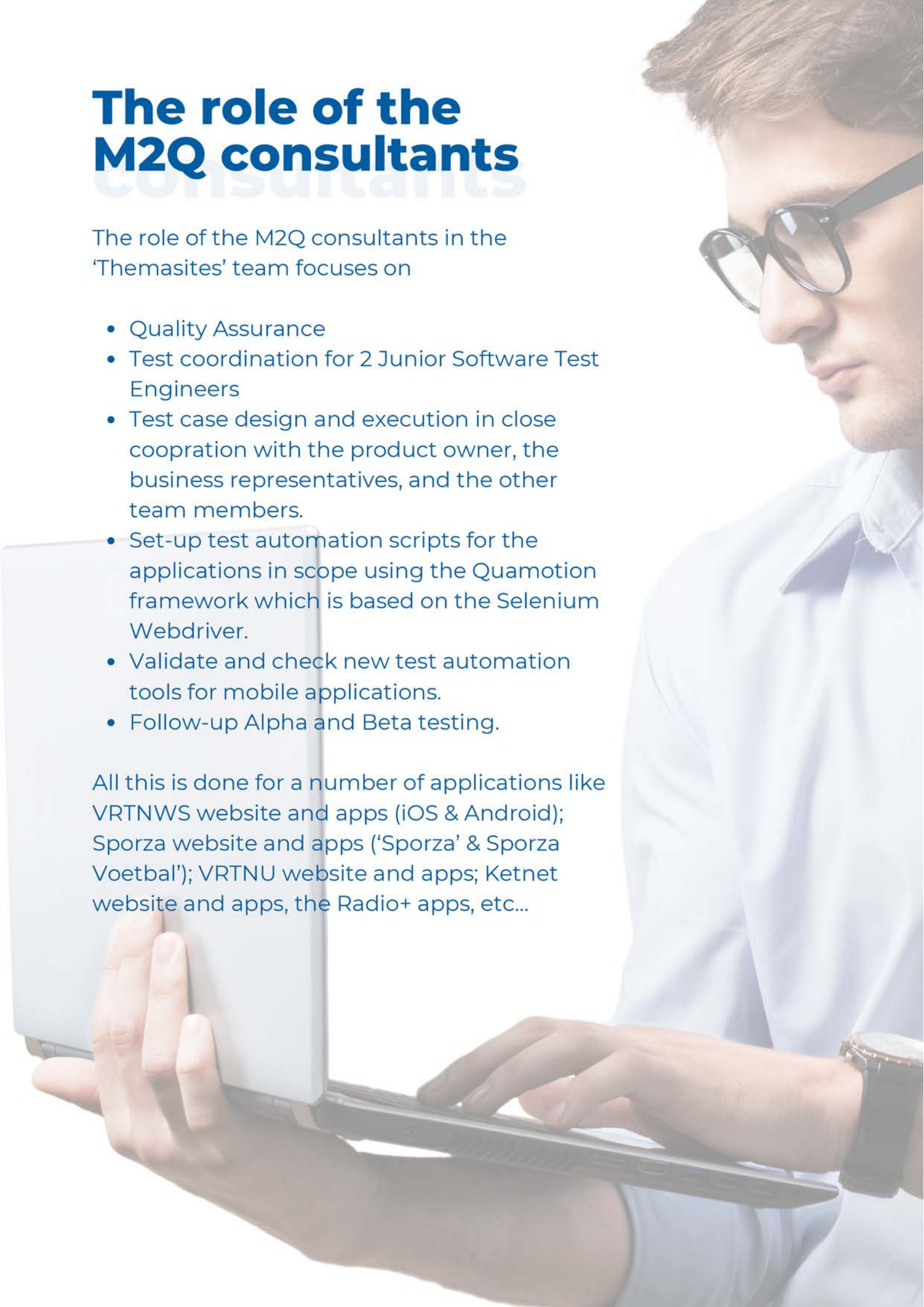
Additionally, the M2Q consultants are involved with the 'Themasites' team. This team is an ambitious Agile Development Team that focusses on the development of mobile applications for the VRT taking into all architecture requirements. The team works with the latest technologies and uses Agile methodologies like Scrum and Kanban.

The role of the M2Q consultants

The role of the M2Q consultants in the 'Themasites' team focuses on

- Quality Assurance
- Test coordination for 2 Junior Software Test Engineers
- Test case design and execution in close cooperation with the product owner, the business representatives, and the other team members.
- Set-up test automation scripts for the applications in scope using the Quamotion framework which is based on the Selenium Webdriver.
- Validate and check new test automation tools for mobile applications.
- Follow-up Alpha and Beta testing.

All this is done for a number of applications like VRTNWS website and apps (iOS & Android); Sporza website and apps ('Sporza' & Sporza Voetbal'); VRTNU website and apps; Ketnet website and apps, the Radio+ apps, etc...



The Environment

The Themasites team is responsible for the development of websites and apps for iOS and Android devices. The team is structured to support the various supported products.

- VRTNWS team – website & apps
- Sporza team – website & apps
- VRTNU team – website & apps
- Ketnet team – website & apps
- Radio team – website & apps

The team supports a variety of technologies

- An Oracle database is used for the Sporza services.
- The backend of the VRTNWS apps uses a MongoDB.
- Push farm is made available through the use of a MySQL database.
- Adobe Experience Manager (AEM) is the content management system.

In 2017 all storage is moved to the Amazon Cloud, and on-premise storage is stopped. Direct communication is enabled through Slack and MS Teams.

The VRT development teams work using the Agile principles. The Themasites team has for the Sporza Voetbal app used the Kanban principles and this since 2016.



TECHNOLOGIE

Challenges

The goal of QA Guerilla is to create a standard approach for testing through consolidating the experiences of the QA Engineers into a 'cookbook'. One challenge is that there are still a lot of questions regarding Test Automation like when to apply, on which scale, which tools to use, etc...

One major challenge is to elevate the QA awareness to a higher level with the various development teams and management.

The major challenge of the QA team within the 'Themasites' team is to avoid that defects are found by the end users. One typical showstopper defect is the migration of data. An example is a new version of the app with substantial changes in the local database causes a crash of the older version of the app.

Another challenge is the low maturity of the Test Automation tools for native and mobile applications. Ideally, the same strategy and approach for testing should be used for websites and applications. Today, this is not the case as tools like Cucumber, Appium, Jam, Espresso, Quamotion, etc... are used.





Methods and Techniques

The DPC Test Strategy is created based on the experiences QA Engineers. This resulted into a file that contains recommendations, tips & tricks, and so on. Unfortunately, these are guidelines and people can decide to use it or not.

The Agile Test Pyramid (<https://www.agilecoachjournal.com/2014-01-28/the-agile-testing-pyramid>) is used to apply test automation. This translates into

- Unit tests are automated and executed with a maximum coverage.
- On top of that are the Component tests are automated to provide a solid foundation.
- GUI test automation focuses on the most important paths used.

This will allow the QA Engineer to focus also on Exploratory Testing, and not only on test automation.

The results of QA Guerilla are regularly presented to the management team. This provides management with insights on the activities that QA Guerilla undertakes. The results are measurable and presented this way.

An example of undertaken actions is how the data migration issue is tackled. A specific test is introduced to validate that the old and new version of the app continue to work. The case will also be automated.

Using AEM and CSM, it is possible to use the same test cases for websites and apps. This is achieved through the set-up of a static test environment which is used to automate the various test scenarios. The test automation of the current websites and apps focuses on:

- Automatic screen comparison through the pipeline or manually started.
- Automate functional tests executed through the pipeline or manual.