



# Quality-Aware Rapid Software Development



## From Dissemination Manager's pen

Welcome to read the fourth issue of Q-Rapids newsletter. It is amazing how time flies! It feels like yesterday when I was creating a template for this newsletter and sketched the content for the first issue. But here we are, summarising the first project year. Over the year the Q-Rapids consortium has worked intensively to set up the ground for Q-Rapids framework. During this period, the project partners have adjusted diverse work cultures learning to achieve project deliveries on time. The first year has resulted in dozens of deliverables, several publications, participated organising two workshops and now finalised this newsletter to mention some. Of course, there is also room for improvement as well. In this case, in the forthcoming year we need to get more active for example on the established social media channels. At the end of the day, I feel proud having an opportunity to write these opening words, having learnt so much in such a short time and being part of this exciting project. Please, enjoy reading our stories!

Best regards,

*Sanja Aaramaa*  
Dissemination Manager



Figure 1. Q-Rapids researchers visiting Nokia, Oulu

## Softteam @ Q-Rapids

SOFTEAM is software engineering consultancy company and a software editor. We participate in the Q-Rapids project to study new methods and techniques for continuous quality management in software development, improve our practices and tools. At the current stage of the project, we participate in several workshops with the academia partners to design the requirements and specify the case studies. In the next stage, we will deploy a testbed at our premises for experiments, evaluation and analysis. We are happy to participate in the Q-Rapids project and we are confident for its great results.



## Industrial workshop @ Bittium

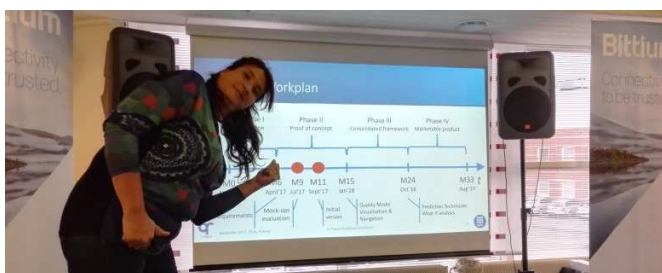
On Monday the 18<sup>th</sup> of September, our partners from Fraunhofer arrived at Bittium premises. The first day of the workshop was meant to test and deploy the draft Q-Rapids solution inside Bittium. Co-operation between the partners was very fruitful with both sides learning from each other. Due to unforeseen technical issues, all things did not go smoothly, but the solution was deemed to be enough in a working order to guarantee the success of the technical solution.

On the second day, UPC researchers and University of Oulu researches joined us to facilitate more sessions. These focused on the presentation and evaluation of the Bittium Quality Model and its impact on the chosen strategic indicators. An ethnography session was held to



shed light on the current decision making processes and to understand the need and benefit of Q-Rapids solution.

Third day was about the evaluation of the strategic dashboards, which ultimately are the visible and usable end product of the Q-Rapids solution from the industrial partner point of view. For most of the attendees from Bittium side, this was the first time they saw the actual solution in use. Many approving nods and positive faces were seen in the crowd during this session. After that it was time agree on some next steps and return home.



## RE conference panel – exciting discussion

During the IEEE RE conference in Lisbon (<http://re2017.org>) on September 7<sup>th</sup>, a panel related to Q-Rapids topics was organised to explore, and healthily debate, the role of Requirement Engineering (RE) in the age of continuous deployment, and in general, continuous \* (where \* is e.g. integration, build, delivery).

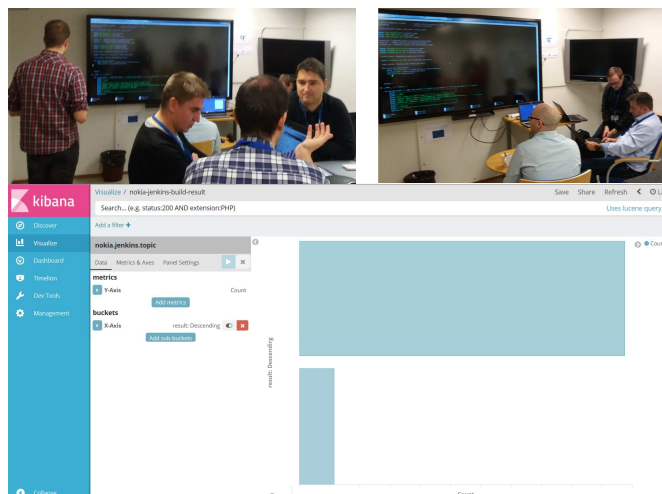
The panel chair was Dr. Nan Niu from University of Cincinnati. In the panel Dr. Juha Savolainen from Danfoss presented his opinion that the strongest link of continuous delivery and RE was simply, 'None'. Juha was favouring speedy delivery and emphasised that agile was not about software development but about doing imperfect RE and receiving fast feedback. Dr. Xavier Franch from UPC made his presentation about in-depth review to the literature on continuous \* and shared the enthusiasm about data-driven and evidence-based RE in the context of Q-Rapids (<http://q-rapids.eu/>). Jari Partanen from Bittium, summarised experiences and lessons learned in practicing agile and set out the industrial perspective to expectations for Q-Rapids project. Finally, Dr. Sjaak Brinkkemper from Utrecht University reviewed the market-driven software industry and envisioned a linguistic tooling supporting RE in the age of continuous \*. Audience provided useful feedback

supporting or contradicting some of the panelists' statements. All in all, food for thought!

## Industrial workshop @ Nokia

The Q-Rapids researchers from Universitat Politècnica de Catalunya, University of Oulu and Fraunhofer visited Nokia on 18.-20.9.2017. The workshop included 14 sessions addressing specific topics related to the three main components of the Q-Rapids framework; a data mining engine, a strategic decision making dashboard and a rapid SW development process.

The Q-Rapids solution implementation at Nokia was started with installing dedicated server and needed applications for data mining. Three days of sweat and tears by technical crew was rewarded when data from Jenkins and SonarQube was visualised using Kibana.



During the workshop, the current proposal for the rapid SW development process model was also reviewed. The model has been created based on the interviews provided by four use case companies. Nokia has collaborated closely with researchers explaining the state-of-the-practice from different viewpoints.

Co-operation with researchers provides great opportunity to learn and try new methods. One such method was ethnography<sup>1</sup>, which is typically used to study phenomena in its natural setting researchers being observers. In this case, the method was utilised in three simulated decision making meetings where scenarios were provided by our business lines.

<sup>1</sup> <https://en.wikipedia.org/wiki/Ethnography>