PROSE

survey on requirements for hosting open source software projects

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" Widespread use of **free/libre/open source software (FLOSS)** in European funded projects is vital to innovation transfer, but often, such software doesn't enter general use. Legal issues, lack of business drivers, incomplete documentation and lack of knowledge about FLOSS are some of the most common reasons for this. "
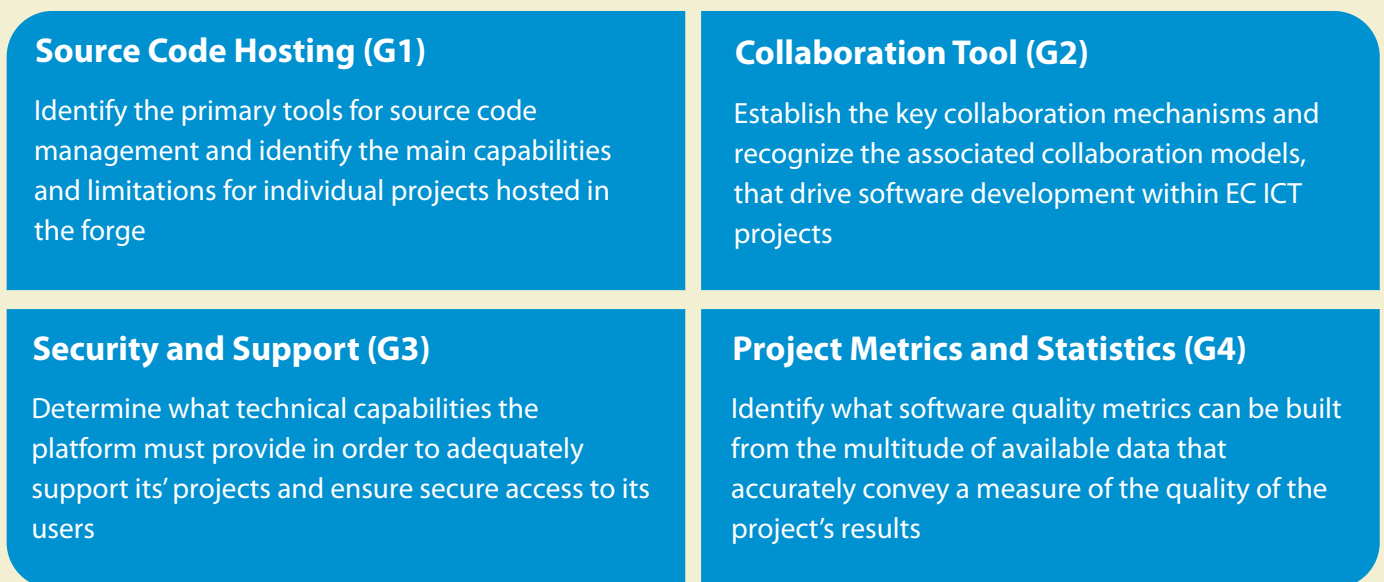
PROSE

PROSE, an EU-funded project tasked with promoting FLOSS, aims to provide a common cloud platform on which open source projects can be hosted and information shared. But how would such a platform work? And what would be its main requirements and features? PROSE turned to ICT FP7 participants for answers.

Consultation process

Survey questions were divided into four themes (see Figure 1). Most questions were optional, allowing respondents to focus on the areas they considered more relevant. The survey was disseminated through EU ICT projects, resulting in 42 anonymous responses, 25 of which came from respondents identifying themselves as members of universities, research laboratories or companies.

Figure. 1. Goals for each survey question group.

Source Code Hosting (G1)

Identify the primary tools for source code management and identify the main capabilities and limitations for individual projects hosted in the forge

Collaboration Tool (G2)

Establish the key collaboration mechanisms and recognize the associated collaboration models, that drive software development within EC ICT projects

Security and Support (G3)

Determine what technical capabilities the platform must provide in order to adequately support its' projects and ensure secure access to its users

Project Metrics and Statistics (G4)

Identify what software quality metrics can be built from the multitude of available data that accurately convey a measure of the quality of the project's results

Choosing a platform software

Privacy (e.g. private repositories, or restricted content) stood out as a key driver when choosing a platform: ICT projects operate a mixed set of closed and open components, where only some results are public. This makes it difficult for such projects to reside entirely inside an open source forge.
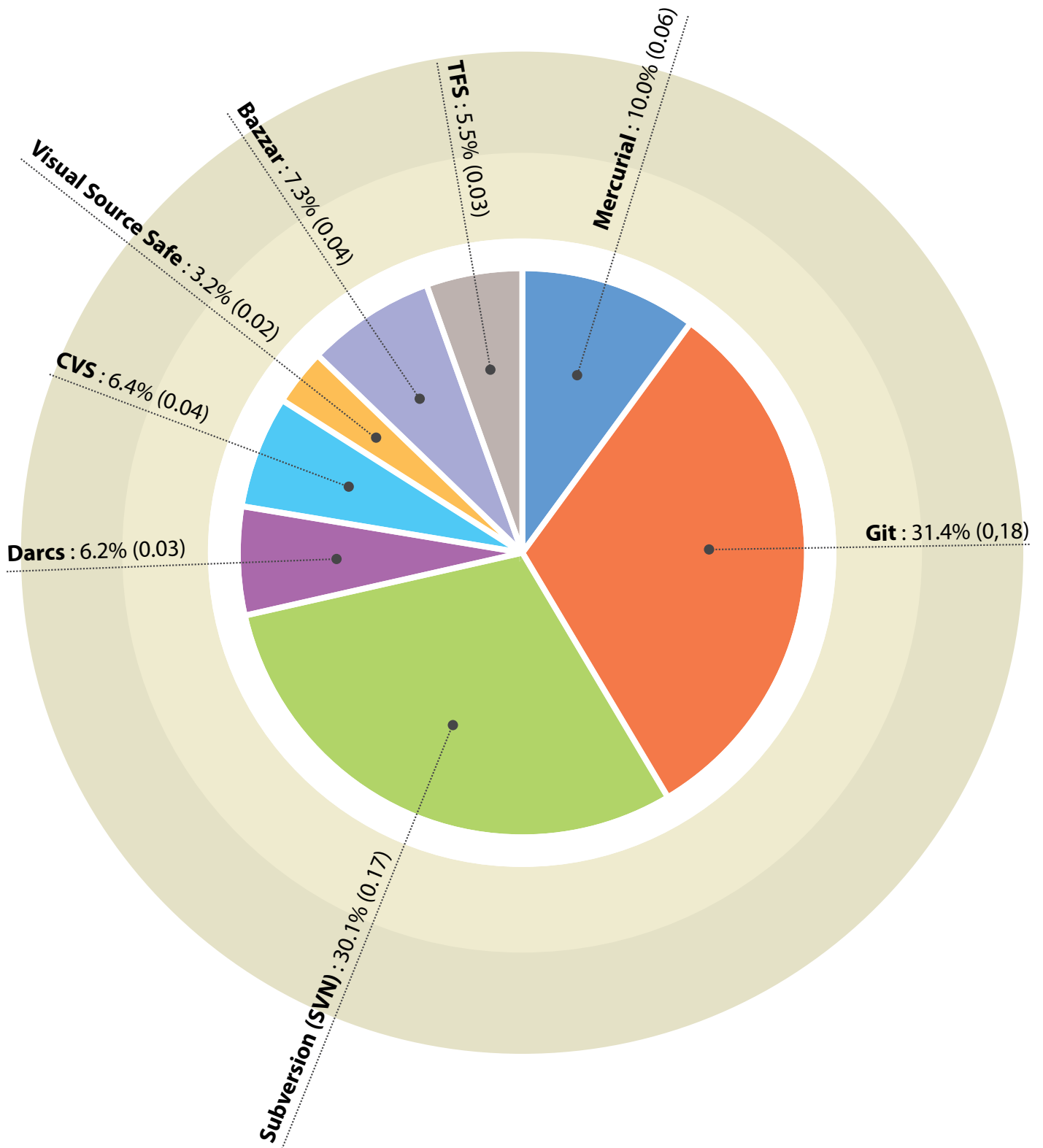
Another identified requirement dealt with **version control systems (VCS):** while *Git* was clearly preferred, *subversion* still gathered significant support (see Figure 2 - next page).

The need for **software quality metrics** was also identified. While SourceForge[1] , GitHub[2] , or Ohloh[3] partially address this need, their offerings are still far from the kind of metrics we envision.

Ideally, metrics should reflect project success. In the context of EU ICT, success can be defined by progression, dissemination and cooperation. Most participants identified the number of downloads and community ratings, as good dissemination metrics. Other metrics can be obtained by analyzing activity and component (re)use. Interestingly, few participants found online social networking to be important.

From the point of view of collaboration, mailing lists, forums and wikis remain the most popular solutions.

Figure. 2. Importance of different Version Controls Software solutions (values < 0.5 express indifference or rejection by respondents >

Allura-based PROSE platform

In light of these survey results, PROSE moved towards selecting the Allura platform[4] for its cloud offering. Allura addresses most of our requirements, as well as offering the possibility of self-hosting, platform customization, support for multiple tools (especially for VCS, supporting both git and subversion), and inclusion of external cutting-edge functionality, such as advanced metrics. Such metrics may be sourced from other ICT projects, thereby increasing collaborative impact.

The choice of Allura will also allow us to develop a close relationship with the (Allura-based) SourceForge ecosystem, with its high Alexa page rank and millions of users: establishing an ICT neighborhood on Sourceforge bridges the interests of both communities and further potentiates the success of the PROSE platform.

Following from this success, the PROSE survey[5] is now in its second phase and will continue to shape our future decisions. Thank you to everyone who participated, and we look forward to an ongoing collaboration.

1 SourceForge: http://sourceforge.net
2 Github: http://github.com
3 Ohloh: http://ohloh.net
4 Allura Platform: http://incubator.apache.org/allura/
5 Available at the ICT PROSE Website: http://www.ict-prose.eu