The use of EUPL in the FIESTA-IoT project

Interview summary

European Commission Directorate-General for Informatics

Open Source Observatory (OSOR)

This interview guide was prepared for the ISA^2 Programme by the European Services team of Wavestone Luxembourg.

WAVESTONE

Disclaimer

Introduction

The ISA² programme supports the development of tools, services and frameworks in the area of e-Government. Once an ISA solution has been released it is managed using best-practices to assure user adoption. In this interview, we will focus primarily on how you have used the European Union Public License (EUPL) in your project.

Section 1 Respondent Information

Name	Dr. Martin
Surname	Serrano Orozco
Organisation	National University of Ireland Galway – Insight Centre for Data Analytics
Role	Senior Research Fellow Internet of Things, Stream Processing and Intelligent Systems Research Unit Head.
Organisation website	https://www.insight-centre.org/

Section 2: Interview Summary

Please answer the following questions in the context of the EUPL and the FIESTA-IOT project.

1. **We understand you have used the EUPL in the context of FIESTA-IOT project. Could you please describe the main objectives of the FIESTA-IOT project?**

FIESTA-IoT Project is a modern way to empower the Experimentation-as-a-Service (EaaS) paradigm, it enables the possibility of virtually connecting multiple Internet of Things (IoT) enabled testbed infrastructures for sharing and reusing data between them for experimental purposes.

The main objective of FIESTA-IoT consequently is to open new horizons in the development and deployment of IoT applications and run experiments not only at EU level, but globally, based on the interconnection and interoperability of diverse IoT platforms and testbeds. FIESTA-IoT creates the opportunity for experimenters to access data resources from different platforms. Since every platform has its own data format and its own way to describe resources, the overall objective of the project is to homogenise the accessibility to those data resources. It is important to emphasise that the aim of the FIESTA-IoT project is to homogenise the access to data rather than standardise those data resources.

One of the main outcome(s) of the FIESTA-IoT project is a blueprint experimental infrastructure, which provides baseline interoperability services, software tools, semantic techniques, certification processes and the documentation describing and promoting best practices for the enablement of IoT testbed/platforms to interconnect their facility's resources to the FIESTA-IoT software infrastructure in an interoperable way. The use of semantic technologies is a crucial element in achieving the above. In other words, the FIESTA-IoT framework enables the integration of multiple IoT platform's resources, testbed infrastructures and their associated data-related applications. To the best of respondents' knowledge, this is the first time something like that was achieved.

FIESTA-IoT also opens new opportunities for the development and experimentation with data from IoT testbeds. Given the diversity of IoT technology, creating such a blueprint experimental infrastructure was a challenge. The initial number of stakeholders was enlarged using the cascading funding model through the management of open calls during the FIESTA-IoT project duration. By the end of the project there were 16 testbeds and more than 63 experimenters supported by 12 FIESTA-IoT partners, a mixture between SMEs, research institutes and universities. There were no representatives from large industries. In the end, all participating stakeholders were satisfied with the final product and the support provided by the project partners. FIESTA-IoT demonstrated that it is open for multiple stakeholder participation.

2. **Please tell us more about how the EUPL was used for the purpose of the FIESTA-IoT project:**

One of the major challenges in the FIESTA-IoT project, and also other projects looking to provide blueprint implementations that serve as best practice reference, is to decide on which existing software license the team should adopt. In the context of the FIESTA-IoT project, the difficulty was to set the correct copyright and define the 'freedoms' to use and reuse any code that was put forward for experimental, testing or commercial purposes. In the FIESTA-IoT project, made up of a consortium of both private and public organisations, the discussion about the copyright and the legal norms of the developed software was something that motivated the search for a suitable free open source license (FOSS). The decision was taken not only to enhance accessibility to FIESTA-IoT's applications and services for any partner in the consortium, but also to develop software and its protection through copyright law. The difficulty to choose the appropriate software license stemmed primarily from the different Open Source Licenses existing in the market with different support communities behind them.

In the project, some licenses had already been adopted but not yet released. The fact that the EUPL is compatible with a multitude of other licenses was a big advantage in this case, as it permitted the team to adopt the EUPL as the license used in the project. Thus, this characteristic was one of the principal reasons that motivated EUPL adoption. The main advantages of the EUPL vis-à-vis other FOSS licenses are mainly it's 1) interoperability, 2) ease of adoption and 3) the compatibility with other licenses that exist.

3. **Please describe how you learnt about the EUPL:**

An exhaustive and detailed analysis of what sort of software licenses exist in the market was made (some licenses are community driven, others are business driven based on contracting models and exploitation plans) etc. The ultimate goal in FIESTA-IoT was to select a license that is most suitable for the research community. The project team came across the EUPL and after assessing v1.2 of the License, concluded that it was a good fit for the project.

Some participants of the FIESTA-IoT project came across the EUPL through the Joinup collection. There were numerous partners in the project that have previously worked with open source software before and hence had some knowledge and awareness of many existing FOSS licenses.

After consultations with some EC officials (Georges Lobo), the project team was convinced that the EUPL was the most suitable licenses for the project.

4. **The EUPL presents some unique features. Please evaluate the importance of each of the below in the framework of your specific project:**

	Very important	Moderately important	Neutral	Low importance	Not at all important	Comment
EUPL is the sole license with a working value in 23 EU languages, allowing licensors (administrations) and users to use their national/native language.	☐	☐	☒	☐	☐	English language was used throughout the project.
EUPL is copyleft, meaning that redistributions must be done under the same license, protecting your work and its derivatives from exclusive or proprietary licensing.	☒	☐	☐	☐	☐	Copyleft is one of the major problems in any project that uses OSS. The EUPL is inclusive and that is crucial for any OSS community.
EUPL is compatible, meaning that while your work will stay under the EUPL, parts of it may be reused in other projects licensed differently (under GPL and other licenses listed as compatible).	☒	☐	☐	☐	☐	Compatibility and the list of compatible licenses is well received and can be further extended.

	Very important	Moderately important	Neutral	Low importance	Not at all important	Comment
EUPL v1.2 covers "the work" and not only "the software", meaning that it can be applied to various copyrighted works (documentation, data, documents).	☒	☐	☐	☐	☐	N/A
EUPL covers distributions made on-line, via Internet and from the cloud (SaaS or Software as a Service) – like the AGPL for example.	☐	☒	☐	☐	☐	Some communities have archives of licenses so they might not rely on online tools, as they have their own repositories. This is an asset but not necessary of crucial value.
EUPL regulates the applicable law and competent court (= of the Member State where the licensor has its seat, otherwise Belgium)	☐	☐	☒	☐	☐	Respondent's personal impression was positive, as this feature of the EUPL might help in the case of the dispute on the code. The FIESTA project did not explore this element.
EUPL permits additional agreements to extend the rights (i.e. making the license more permissive), and not to restrict it.	☒	☐	☐	☐	☐	Every license has this statement. Whilst the EUPL is richer than other licenses when it comes to compatibility, it suffers from the lack of clarity in terms of derivative work.

	Very important	Moderately important	Neutral	Low importance	Not at all important	Comment
The EUPL provides more legal security because it is a EU legal instrument (EC decision) placed under EU law, and in case of litigation all Member States jurisdictions may request clarification/interpretation from the Court of Justice of the EU (this is not the case with other licenses born in the USA)	☒	☐	☐	☐	☐	N/A

General comment:

Working for FOSS projects for over 7 years and having the opportunity to take the decision on which license to use for the FIESTA-IOT project, the respondent feels that it is important to use the EUPL. He further expressed support for the idea of having the EC mandate the use of the EUPL in cases where possible.

5. **Please tell us about any challenges that you may have encountered when using the EUPL for your project. Please elaborate how you overcame them, in particular with the partners from the private sector.**

The major challenges that were overcome with the EUPL were the issue of compatibility and interoperability. The use of the EUPL allowed different project stakeholders that work with different FOSS licences to collaborate. However, the compatibility clause of the EUPL, which does not allow for the changing of the license of a covered component, generated some confusion for the project stakeholders. For the project team it was difficult to discern whether the clause was applicable to new derived work or to new work performed over project works with previous compatible licenses. The main confusion was how the derivative work will be affected by this.

Generally speaking, the EUPL is not very clear on the derivative work. Hence, it is important for the EUPL to avoid leaving too much room for interpretation in its descriptions and clauses.

6. **How did EUPL help you achieve your project's objectives? Please elaborate (for instance, did it help you to overcome intellectual property rights (IPR) issues in your project?).**

As the EUPL was compatible with other licenses used in the project such as GNU General Public License (GPL) and the GNU Lesser GPL (LGPL), the use of the EUPL helped the team achieve the objective of having a fully open source-based project. Considering that in the FIESTA-IoT project, various released components were released under GPL or GNU LGPL, making the compatibility feature of the EUPL a major advantage, which allows not only the inclusion of components but also the release of new components under the EUPL, hence making the software fully compatible. More briefly, all the derivative work could be integrated under

one single license. Thanks to the use of the EUPL, there is an identity created around FIESTA-IoT, with derived works further supporting the identity.

It can be said that the use of the EUPL was an objective of the project. Thanks to the use of the EUPL, the open source code of FIESTA-IoT is compatible with any other license used in the project. This feature has not yet been achieved in other communities to the best of respondent's knowledge.

7. **What would you say were the main lessons learned from the use of the EUPL in your project? The lessons could be in terms of experience using the license, things you would do differently in the future, things that you learned about your project thanks to using the license, etc.**

The respondent answered the question from a personal and project perspective.

Personal experience:

The respondent learnt about the derivative work, which was possible thanks to having compatibility between different licenses. Thanks to the use of the EUPL, the respondent significantly improved his knowledge on the derived concepts, which he shared with other members of the FIESTA-IoT project.

Project perspective:

One thing that the project stakeholders did not initially understand was the fact that before choosing to release the code under any specific license, it is important to fully appreciate the legal and administrative aspects of each license on the market. Often projects choose their licenses based on their 'popularity'. However, this is not the most efficient way to select a license. It is important to have greater awareness of the legal and administrative aspects of each license.

The fact that under the EUPL, compatibility and derivative works are promoted and easy to adopt is not well known or understood among the FOSS communities. Hence, one comment that the respondent has for the Commission is that it is important to have more documentation about the compatibility aspect of the EUPL (clear guidelines are needed to allow developers to develop a better understanding of the implications and strengths of using the EUPL).

8. **Would you recommend the use of the EUPL to other research projects? Please tell us why.**

Whilst the respondent might be biased in his answer, he would strongly recommend the use of the EUPL for other research projects.

The main reason for this is because the EUPL creates a community with a strong philosophy of sharing and compatibility. Thanks to the EUPL, the philosophy of sharing and compatibility is elevated from 'software code (development)' to 'administrative compatibility' and 'legal frameworks'. This is a major asset derived from the use of the EUPL, which fosters a community with the appropriate philosophy and the administrative and legal support (all of which is free, unlike in other similar communities).

9. **Would you recommend the use of the EUPL to the partners from the private sector (SMEs, Industry, etc.). Please tell us why:**

The respondent would not recommend the use of the EUPL to partners from the private sector at this point as the FIESTA-IoT project team noticed that there are a lot of unclear sentences in the description of the EUPL, that might prove to be a challenge to SMEs. This is because SMEs are in short cycle projects (18 months), where they do not have the time and room for interpretation of the licenses' meaning.

The respondent would recommend for the project team to look at the list of existing compatible licenses, to observe the language they use and see how this can be adapted to the EUPL. In brief, the clarity of the EUPL needs to be improved in order to enable SMEs and industries to reuse it. It is important to understand that the industry cares more about innovation rather than liability, compatibility of the licenses.

10. **Did you or do you intend to use the EUPL in other research projects? Indicate if for the same reasons as for FIESTA-IoT or different ones. Please indicate whether these are national or EU funded projects.**

Yes, the respondent is planning to promote it in any of the future projects that would be considering the use open source licenses.

The respondent would promote the EUPL for the same reasons as it was used in the FIESTA-IoT project. He would also encourage the use of the EUPL for projects at the national level.

11. **The FIESTA-IOT project is supported by the European Commission and the Horizon 2020 funds. In your opinion, would you say that the fact that the project was supported by the European Commission influenced the use of EUPL? Or do you think that EUPL would have been used either way. Please elaborate:**

The decision to use the EUPL was not influenced by the fact that FIESTA-IoT was a Horizon 2020 project. The decision to use the EUPL came from the partners involved in the project.