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FIWARE

D.42.5 Report on the FIWARE Marketplace

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1   Scope of the Document

This document covers the tasks performed by OgilvyOne Worldwide S.A. (OG1) in its role of FIWARE Press Office to select a suitable solution to build up a FIWARE Marketplace as a key tool for the go-to-market phase.

This task, originally part of the Open Calls of the initial DoW, was transferred to OG1 by TID as project coordinator due to the extensive knowledge of the FIWARE Press Office on the FIWARE Ecosystem, to which this tool is to give service to. On top of that OG1 is performing the programming and maintenance of the FIWARE Website, having all the technical skills necessary for performing the job, as the FIWARE Marketplace should be linked to or included in fiware.org.

In parallel, the so-called Programme Office from CONCORD, the CSA project supporting the whole FI-PPP, has performed a study on sustainability that includes the concept of a marketplace. OG1, as a partner in CONCORD, has been aware of this study, ensuring alignment between it and the outcome of this deliverable. Information on the study could be found in the correspondent CONCORD deliverable, which is of public nature.

2 FIWARE Marketplace

In this section we define the features and possibilities required to setup and operate a FIWARE Marketplace, along with a reference example coming from an open source Community similar to FIWARE.

2.1 Definition of a Marketplace for FIWARE

A Marketplace is, in essence, an on-line instance in which products and services around a given brand are showcased and, in some cases, sold. The Apple Store from Apple and the Play Store from Google are well known popular examples of a marketplace, serving in this case as a showcase of different Apps that can be purchased and downloaded by their potential users.

In the case of FIWARE we need to take into account the following premises:

- FIWARE is a B2B brand that does not own end-products or services, but facilitates others to build those based on the technology and the support of the full Ecosystem.
- FIWARE will be owned by the FIWARE Foundation, a non-profit organisation that does not sell directly any product or service.
- The product and services offered in the FIWARE marketplace are property of their respective owners, and any transactions are ruled by different terms and conditions.
- FIWARE will only guarantee that the products and services offered in the Marketplace are compliant with the "Powered by FIWARE" concept, with the FIWARE Foundation playing its role of Brand and technology guardian as set up in its Mission.

For all that reasons the FIWARE Marketplace should not include a transactional section in which the actual commercial activity between the owners of the product and services and their potential clients take place.

FIWARE success is based heavily in a rich and powerful Ecosystem. Therefore, not only end-products should be featured in the Ecosystem, but a number of services coming from the different stakeholders within the Community that form the FIWARE Ecosystem. The aggregation of these into categories ends up in the proposal of the structure of the Marketplace:

- FIWARE Platform Offerings: Companies offering commercial FIWARE instances, normally linked with a Service Level Agreement (SLA) contract.
- Powered by FIWARE Solutions: End-products or solutions, validated by FIWARE experts, based on FIWARE Technology
- IoT Ready Programme: IoT devices ready to plug-and-play with FIWARE backend solutions, also validated by FIWARE experts.
- Training: A list of courses and workshops run by experts of the FIWARE Community.

- Consulting and Integrators: Companies offering professional services in these fields around FIWARE technologies.

2.2   An open-source Community reference model of Marketplace

In order to avoid reinventing the wheel, it is worth to take a look at how other successful open-source communities have solved the integration of a marketplace in their offering.

FIWARE has several times taken Open Stack as a reference in building its own Community. From the basic principles of meritocracy and trust to the basis of the FIWARE Mission, the cloud-based offering of Open Stack in terms of product, services and contribution of its members, has been an example to follow replicating those aspects applicable to FIWARE. You can easily review Open Stack offering by visiting its website https://www.openstack.org

In terms of Marketplace, Open Stack has built a fully custom programmed instance in which several categories are featured. This links perfectly with the categorisation made for FIWARE in the previous section of this document. A screenshot of the marketplace (www.openstack.org/marketplace) is shown here below:
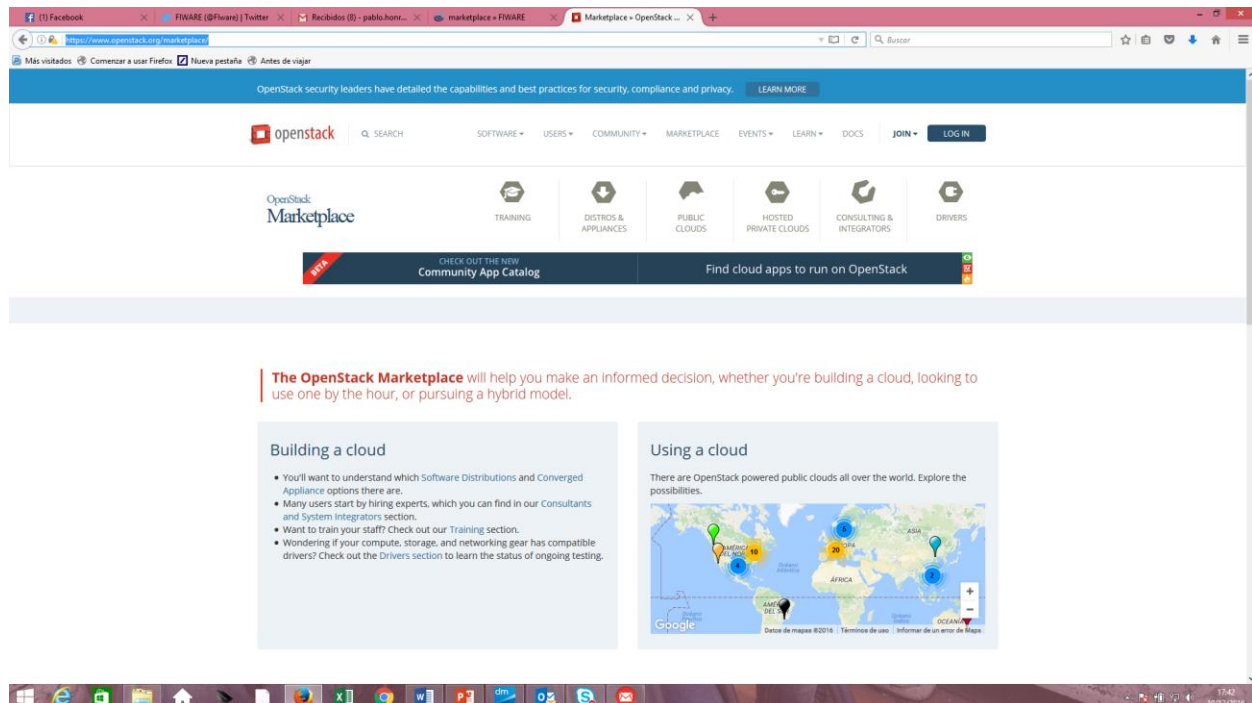

Fig.1: The Open Stack marketplace

3   Different options to build a Marketplace for FIWARE

In terms of the way to build a marketplace for FIWARE, different options have been explored. Each of the approaches has advantages and constraints that the FIWARE Press Office have taken into account to build the recommendation explained in Section 4 of this document.

Basically, the options are:

- As in the case of Open Stack, an ad-hoc programmed instance.
- With the FIWARE Website based on WordPress themes, select a WordPress theme with marketplace plug-in capabilities.
- Select a 3rd Party platform that can be personalized and tailored for FIWARE.
- Select a solution available offered by a member of the current FIWARE Ecosystem.

3.1   Ad-hoc Programmed Instance

This solution requires a technical team to program the back-end and the front-end of the solution. The FIWARE Press Office could potentially offer this service through its technical department, the very same team that is currently managing the FIWARE Website.

The advantages are:

- Full flexibility in terms of design, look & feel, capabilities etc. A detailed functional description is to be given to the technical team to program the marketplace, including all distinctive aspects that FIWARE would need.
- Full control on the marketplace, which will be completely integrated into fiware.org.
- Full ownership of the platform, no fees are to be paid.

The disadvantages are:

- Time-to-market: The solution will take between 8-10 weeks to be in production, including the testing period.
- Costs: The initial setup of the marketplace would represent a budget between 15 to 20 thousand Euros.

A variation of this approach is to select a third-party to program the marketplace. In this case OgilvyOne has asked Geographica, a software company already involved in FIWARE as creators and programmers of the Ecosystem Map that can be found at: www.fiware.org/map .

As we state on our recommendation a key aspect of selecting an approach for the marketplace is the integration of it with other components of the FIWARE Ecosystem, such as the map. Linking the companies with their respective solutions will result in a compact image for FIWARE as a Community rather than a series of independent resources put together into a website. This is the reason why we asked the map supplier to quote on the Marketplace.

As a summary, Geographica quoted the set-up of the Marketplace in 24,500 Eur, including the improvement of the FIWARE Ecosystem Map to be linked with it, in line with the expected costs of an in-house programming by the FIWARE Press Office team.

3.2 WordPress Plug-in's based solution

Depending on the selected themes, WordPress offers different plug-ins to include marketplace capabilities to your website. These plug-ins are already-programmed instances that can be easily incorporated inside the coding of the website.

The FIWARE Press Office technical team is about to enter a full redesign of the Website to better serve the needs of the go-to-market phase. Taking advantage of this, a new theme could be selected to support the inclusion of the needed plug-ins to set up the FIWARE marketplace.

The advantages are:

- Time-to-market: As part of the web redesign marketplace capabilities are included seamlessly.
- Costs: The setup of the marketplace could be included in the costs of the website redesign.
- Full ownership of the platform, no fees are to be paid.

The disadvantages are:

- Limited flexibility, the marketplace should be adapted to the features of the WordPress plug-ins.
- Limited scalability, for the same reasons explained above.
- Limited control of the operation, depending on plug-ins performance and reliability.

3.3 Selection of a 3rd Party platform

A complete different approach is the selection of a commercial platform to support the FIWARE Marketplace. In this way, a contract is to be signed between the selected third party and FIWARE (represented, presumably, by the FIWARE Foundation).

The cost of this solution is quite variable and normally includes transactional capabilities. The FIWARE Press Office has not found a suitable vendor that fits the needs of a marketplace as the one defined in Section 1 of this document and cannot make, therefore a recommendation in this direction. Most of the marketplace vendors are B2C oriented and address the full selling chain, from offer to purchasing.

From a formal point of view, the advantages are:

- Once the platform is selected, and a service level agreement is signed, a fee-based approach eases the operation of the marketplace, which will be responsibility of the vendor.

But there are some disadvantages also:

- Most vendors do not accept personalization of the Marketplace, and the look & feel will be very much that of the vendor.

- Transactional capabilities are included in the fee, even if not used by the FIWARE marketplace instance.
- If personalization is possible, there will be an upfront cost in performing the personalization.
- Control of the operation is in the hands of the vendor.

3.4   Selection of a solution from the FIWARE Ecosystem

Back in September 2016, and as a part of the whole process, a call for solutions was posted to the FIWARE Community. Unfortunately none of the few proposal were suitable for the purpose, as most of them follow the same scheme that the vendors mentioned in the previous section: Business to Consumer oriented and transactional capabilities included.

Nevertheless, with the launching of the selected projects within the call ICT-41 of H2020, a new player come into the FIWARE Ecosystem. As a partner in the new FIWARE Accelerator, IMPACT Growth, Funding Box offered as a candidate to perform the job of building the FIWARE Marketplace.

3.4.1   About Funding Box

Funding Box (www.fundingbox.com) is a private company specialized in facilitating the access of companies (SMEs, Start-up's) to public funding. As of today is a recognized player in this space.
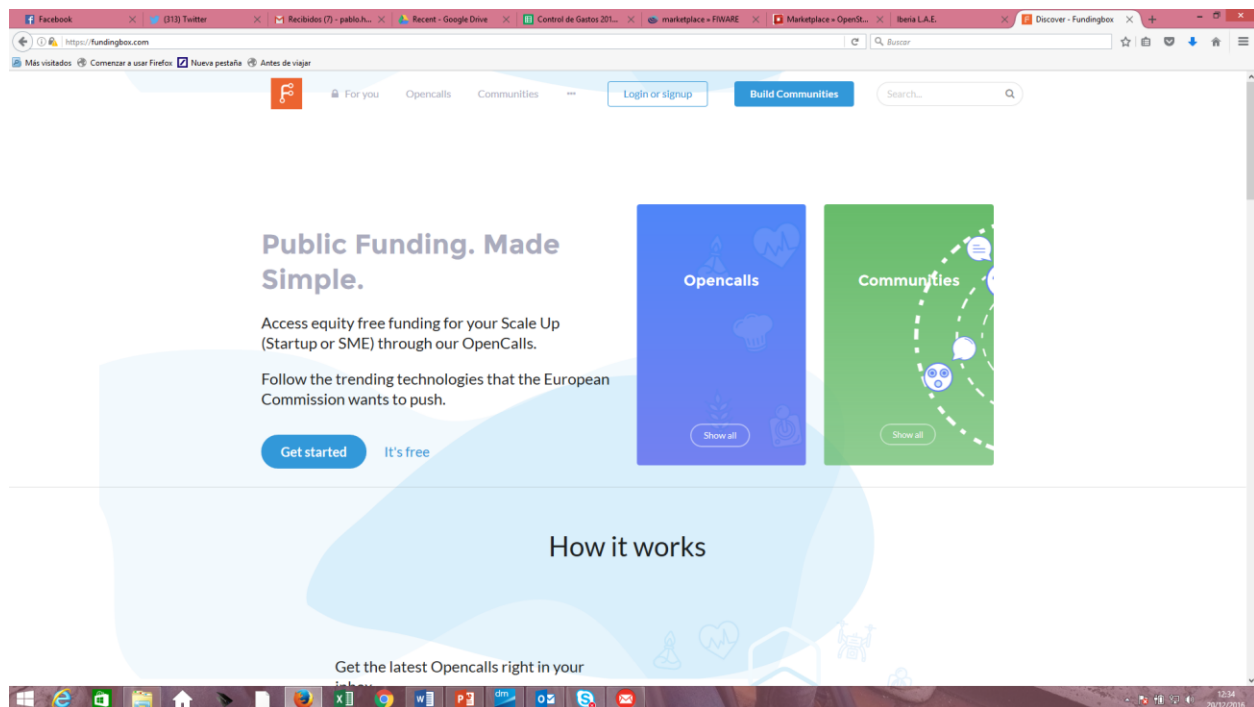

Fig.2: Funding Box Website Home Page

In an assessment of their offering, FundingBox discovered that they were very successful in attracting companies to their platform but the engagement rate was poor once the different Open Calls were assigned. Those companies not selected usually abandoned the platform rapidly and therefore FundingBox was not able to continue the conversation with them.

3.4.2   Funding Box Community approach

To solve this, Funding Box decided to evolve their product, incorporating a new module side-by-side with their Open Calls core business.

This module, called Communities, is intended to create a set of different Ecosystems grouped by subjects and interests, in which networking, discussions and discovering of opportunities is fostered.

The tool has not directly Marketplace capabilities as such, but could be adapted to do so. This are the advantages and disadvantages of this solution:

Advantages:

- Built-on Community capabilities, include private groups, sub-groups, chat, etc. It looks like a nice solution to replace mobilize.io as a Community tool into a more structured and controlled environment.
- One year free of charge model in a win-win approach between the FIWARE Foundation and Funding Box.
- Partner scheme for personalization and adaptation of the tool to FIWARE needs. Fluent and continuous contact with the platform supplier.
- Funding Box has recently become a partner of the FIWARE Foundation and therefore their solution could be considered as in-house.

Disadvantages:

- Not a native Marketplace, needs deep adaptation to fulfil FIWARE needs.
- Personalization is to be done to be in line with current FIWARE website and other owned assets.

4   Recommendations for the FIWARE Marketplace

As can be easily deducted from the conclusions of the research on the different types of solutions there is not a single one that gives full answer to FIWARE requirements for the setup of a Marketplace.

On top of that, and considering the phase of the project we are in, our decision has been to issue a recommendation for the FIWARE Foundation to take care about, once all FIWARE properties, assets, strategy and commercial decisions are to be transferred to the Foundation as of January 1st 2017.

To decide on the recommendation, the following aspects have been taken into account:

- The Marketplace should be in place as soon as possible. If the selected solution implies a long decision or setup timing, a workaround solution needs to be in production by the FIWARE Summit in Málaga on December 2016, when it will be announced.
- The Marketplace should be clearly a FIWARE asset in terms of organisation and look & feel.
- The Marketplace should be linked with other Ecosystem Assets, such as the Community platform (currently mobilize.io) and the map.
- The inclusion of a FIWARE Foundation Member such as Funding Box in the operation will build on the credibility of the whole Ecosystem.

By the time of writing this report the FIWARE Summit has already taken place and the FIWARE Marketplace was announced by the FIWARE Foundation representatives, Juanjo Hierro as CTO and Stefano de Panfilis as COO.

Accessible at www.fiware.org/marketplace , it currently is a landing page following the structure explained in Section 2.1 of this document, linking with different pages of the current website were offerings are available.
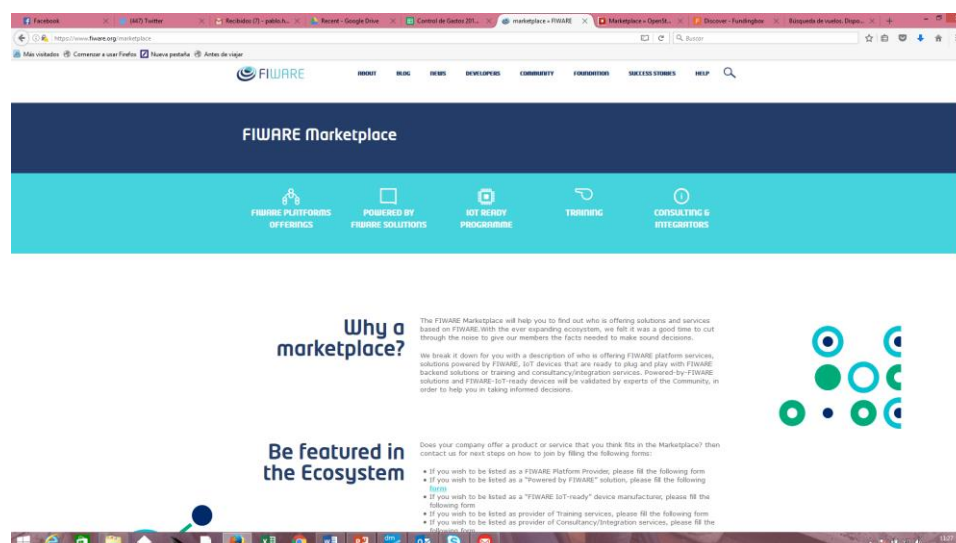

Fig.3 The FIWARE Marketplace Landing Page

As a matter of fact, the page (even being in production) is still not indexed in the fiware.org site map to prevent massive access to it until all submission forms of the different categories are programmed and tested. This task is to be done by January 2017.

To end with, this is the FIWARE Press Office Recommendation to setup a Marketplace for FIWARE:

OPTIMAL:

- Program the Marketplace from scratch, as part of the redesign of the whole fiware.org website.
- Use Funding Box Tool as Community Tool replacing mobilize.io

SUB-OPTIMAL:

- Work with Funding Box to get to a personalized version of the current tool, to reach a product that could serve both the Community and the Marketplace functions.

5 Usage of the budget assigned to this task

Apart from the personnel costs linked with the research explained in this deliverable, and the costs of programming the Landing Page of the temporary solution for the Marketplace, no budget has been used for this task.

As stated in the DoW, the FIWARE Press Office has used this budget for other Communication and Dissemination tasks, and specifically in supporting FIWARE presence in the three key events in Q4 2016,namely, IoT Solutions Congress, Smart City Expo World Congress and FIWARE Summit.

These events are reported in the correspondent FI-CORE deliverable D.42.4.2 Report on Dissemination Activities.