Virtual Campus Hub

Deliverable D4.2 (WP4)

e-Link Functionality integrated into the VC Hub

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Date:
September 3, 2013
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1 Introduction

The goal of this Deliverable D4.2 is to report on the development of the e-Link Application, called “StartApp”, designed and implemented at Politecnico di Torino as the core technological platform envisioned in WP4.

The nature of the present D4.2 is a “Demonstration”-type deliverable, i.e., the on-line website application is the actual deliverable. We provide this short document as a guide and explanation for the StartApp application.

Figure 1. Home page of the StartApp tool, http://toce.polito.it/vchub/

The StartApp an on-line tool for innovative start-ups, that is able to support, in a virtual way, some phases of their learning path towards incubation (the so-called pre-incubation period). The tool (see the homepage in Figure ), is available for testing at the address http://toce.polito.it/vchub/

The general characteristics of the offered on-line services were already outlined in the design document under Deliverable D4.1 “Interim e-Link Evaluation report”. We remind here the main characteristics of the designed service:

- The target users are post-graduate persons, who aim at building new and innovative companies in the Energy Sector.
- The service will follow such users in their pre-incubation phase. In this phase, there is a mix of learning activities (about business models, economics, but also technology,
market structure, etc) with some initial research and business development. Deliverable D4.1 already analyzed, with the help and the input from local incubators, and proposed which on-line functions are best suited to this phase of the innovation/incubation process.

- Functionalities and implementation were designed in collaboration with other VC Hub partners, but also with the I3P Incubator in Torino, Italy.
- Users of the website must be recognized as part of “Innovation Teams” (at this stage, the companies are not formally registered, yet). Each innovation team may be followed by a “Tutor” from a recognized incubator.

The on-line service for pre-incubation learning support has been called with a short name: **StartApp**. The StartApp name is evocative of the “Start-up” nature of the Innovation Teams participating to the platform, and at the same time it remembers that it hosts a collection of “Apps”, i.e., specific functions suitable for implementing suitable sub-tasks.
2 StartApp overview

Starting from the required functionalities (see Deliverable D4.1 for the complete description), a new web site structure has been designed, taking into account both end-user functions, and administration functions. Figure shows the overview of the main development areas (rectangles) and the detailed list of macro-functionalities available (rounded rectangles and ovals).

![Figure 2. Functional decomposition of the StartApp tool](image)

The service is built by integrating a standard open source Content Management System (CMS), that provides basic functionalities for publishing contents (pages, articles). The chosen CMS was Drupal (http://www.drupal.org), and we developed the additional functionality not present in the basic CMS.

As we may see in Figure, end-user functionalities are grouped in two main areas: contents (i.e., articles and information edited by the expert users of the system) and interactive features (i.e., tools where end-users may create new content and interact with the experts). As Figure 2 shows, in fact, several different user types (and roles) are supported in the application, to enable regular users to collaborate with expert tutors.
To enter the StartApp application as a registered user, you are requested to insert Username and Password (see Figure 4). Each Username has an associated profile (user, tutor, editor, administrator), managed by the system administrator.

To test the StartApp application, we provide two Usernames, with different profiles:

1. User profile
   - Username: demouser
   - Password: demouser

2. Tutor profile (that also has editing privileges)
   - Username: demotutor
   - Password: demotutor
3  StartApp functionalities

This section provides an overview of the functionalities of the StartApp application, with a specific focus on the most interesting features, the interactive ones: the Interactive Forum and the Osterwalder Canvas. Figure 5 shows the menu bar that allows the user to select the desired functionality.

We remind that most functionalities are only accessible to registered users, therefore logging in is required to view the site contents.

![Menu bar of the StartApp tool](image)

*Figure 5. The StartApp tool menu bar*

3.1  Smart List of Web Links (Smart Links)

This is a useful and handy “content” functionality (see Figure 6 for a screenshot) that gives access to carefully selected “smart lists” of interesting Web links (a kind of “vertical” Webography) that could facilitate the innovative SMEs in the search and navigation on the portion of the Web that contains information relevant to their business.
Smart Links

The Swedish Energy Agency (Energimyndigheten)

The Swedish Energy Agency works for the use of renewable energy, improved technologies, a smarter end-use of energy, and mitigation of climate change. The Agency’s mission is to promote the development of Sweden’s energy system so that it will become ecologically and economically sustainable. This means that energy must be available at competitive prices and that energy generation must make the least possible impact on people and the environment.

The U.S. Energy Information Administration (EIA)

The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy. EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding.

Figure 6. The Smart Link page
Content resources, in the Smart Links and in other section of the site, are explicitly categorized by a content-based top-down classification. This helps users to select the subset of information that is more relevant to their enterprise.

In particular, each of the Smart Links references the proposed Taxonomy, developed as part of WP4 work, and described in Deliverable D4.1. See Figure 6 for an overview of the highest two levels of the Taxonomy.

![Figure 7. Taxonomy (first 2 levels shown, only)](image-url)
3.2 Patents

For assessing an idea or an innovative technology it is useful to check on existing patents databases similar technologies. Often this give also the opportunity for identifying “who is doing what” in the market area under investigation.

The Patent access is therefore another useful “content” functionality (see Figure 8 for a screenshot) that gives access to selected patent databases and to specific queries to search and browse patents related to the specific energy sectors where the startup is investing.

Figure 8. Patent Databases Access page
3.3 Market and Industry

In order to make a market assessment it is fundamental to have access to updated data sources for getting the most complete picture of the market scenario.

The Market and Industry functionality (see Figure 9 for a screenshot) provides access to relevant data, including conferences and market studies.

Figure 9. Market and Industry Databases page
3.4 Interactive forums (Discuss)

The interactive forum is a space, where all users may discuss among themselves (and with experts) about the different topics.

We decided to use an innovative forum platform, that could join the benefits of forum-like interaction, coupled with facebook-like intuitivity, and backed by a reputation system similar to eBay and StackExchange. We implemented the forums based on the extremely innovative platform called Discourse (http://discourse.org).

A screenshot of the Discourse platform, customized for the VC Hub project and integrated with the CMS, is shown in Figure 10.

![Screenshot of the StartApp thematic forums (based on the Discourse software)](image)

Figure 10. Screenshot of the StartApp thematic forums (based on the Discourse software)

The discussion categories also match the top-level of the proposed Taxonomy (see Deliverable D4.1 for description).
3.5 Osterwalder Canvas

The Osterwalder canvas is an extremely popular formalism for representing the strengths of a technical and business proposition, and for indicating the main relationship of the company with the market and the supply chain; it consists of a graphical formalism composed of 7 boxes. The pre-incubation process requires users to create such a model for their proposed business, and share it with their tutor, in order to improve the business proposition.

The StartApp website features an interactive editor to create, edit, share and comment Osterwalder Canvas sheets for any registered User and Team in the system (see Figure for a screenshot).

![Screenshot of the StartApp Osterwalder canvas editor](image)

The process for creating and refining an Osterwalder Canvas is a complex and interactive work that involves both the user and the tutor.

Figure 12 gives an overview of this process: the user can start a new canvas, and when he/she is satisfied with it, he/she can submit the canvas to his/her tutor. The tutor can only view the canvases that have been expressly submitted to him/her, and he/she can comment on any of the 7 boxes (see Figure 13). Once the tutor has finishes this task, he/she can return it to the user, together with the comments.
The user then can read the comment, make the appropriate changes and submit it again to the tutor, for the next interaction round.

**Osterwalder Canvas**

Both the users and the tutors are always aware of the status of the Canvases they are editing (or assessing) thanks to an updated list provided by the tool (see Figure 14 for the tutor’s view).

**Figure 12. The process for creating and refining an Osterwalder Canvas**

**Figure 13. The comment editor in the Canvas functionality**

**Figure 14. The tutor’s list of Canvases**