Collaborative Open Market to Place Objects at your Service

D8.1.1

COMPOSE Website Establishment

Project Acronym	COMPOSE
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Abstract

The COMPOSE website has been designed and implemented in order to provide useful information concerning project description, news, publications, results and other relevant material. From this point of view, the website is intended to be a central point for project dissemination. It will offer information about the project and about COMPOSE-related events. It will also provide publicity material, questionnaires, flyers and relevant information accessible for download.

Besides acting as a dissemination channel for the project, the website intends also to offer a public space for user discussion about main topics addressed by the COMPOSE project, in particular about the marketplace of services for the Internet of Things, thanks to the usage of social networking features. The site is designed as a web 2.0 platform that allows accessing information concerning the project and participation from the community in order to share the contents over several social networks, like LinkedIn, Facebook, Twitter.

The COMPOSE website aims to realize an effective communication and knowledge dissemination towards all key stakeholders (industrial stakeholders, software communities, SMEs, public sector, citizens) of COMPOSE marketplace potential, of its innovative approach in terms of access and use of marketplace services.

The design of the website is compliant with standard practices for improving usability for the navigation and clarity. It is structured in a way that allows periodical updates with low maintenance effort as new information is made available.

The adopted solution for the website realization is based on Drupal, an open source CMS (Content Management System) widely adopted as backend system for website realization, ranging from personal blogs to corporate and public government sites.

Document History

Version	Date	Comments
V0.1	10/01/2013	Draft version
V0.2	18/01/2013	Draft version revised
V1.0	30/01/2013	Final version

Table of Contents

List of Figures

List of Tables

Acronyms

Acronym	Meaning
COMPOSE	Collaborative Open Market to Place Objects at your Service
CMS	Content Management System
FAQ	Frequently Asked Questions
IoC	Internet of Content
IoS	Internet of Services
IoT	Internet of Things
SME	Small Medium Enterprise

Table 1 – Acronyms

1   Introduction

During the first two project months we performed an internal discussion about the main objectives of our project website and consequently which features and content our website has to offer to external users and contributors.

Besides acting as a dissemination channel for the project, the website intends also to offer a public space for user discussion about main topics addressed by the COMPOSE project, realizing an effective two-way communication and collaboration channel towards all key stakeholders interested in COMPOSE marketplace and platform potential, about its innovative approach in terms of access and use of marketplace services.

The site has been designed as a web 2.0 platform that offers access to information concerning the project and community participation and content sharing also from existing social networks, such as LinkedIn, Facebook, Twitter.

From a technical point of view, we conducted an evaluation of software frameworks available for supporting these objectives, with focus on open source solutions. Candidate solutions for the evaluation were selected taking into account built-in features availability, configurability, maintainability and usability aspects, as well as considering existing expertise in website internal development and maintenance by the project partner in charge of the website setup and maintenance.

The adopted solution for the website realization is based on Drupal, an open source CMS widely adopted as backend system for website realization, ranging from personal blogs to corporate and public government sites.

The public version of the COMPOSE web site can be accessed via: http://www.compose-project.eu/.

The purpose of this document is to give an overview of the project website structure, of available features (Section 2) and the basic content that will be used for its initial setup (Section 3).

2   Compose Website Structure

COMPOSE website (http://www.compose-project.eu) is structured to allow an easy navigation across the different sections. The sections of the website are structured as in Figure 1:
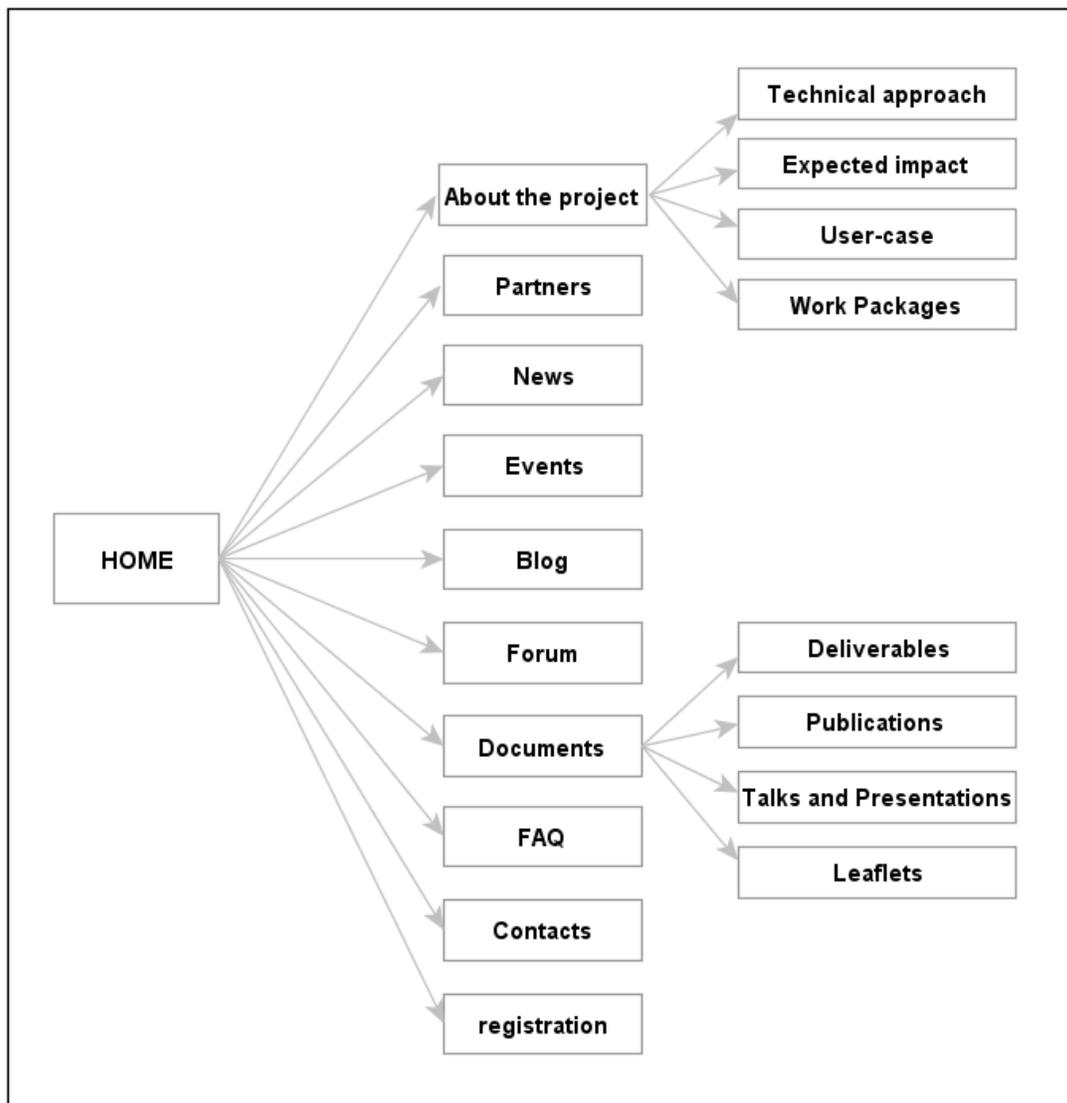

Figure 1: Website Structure

The different sections can be accessed through the top menu bar, always visible in all the pages of the website, as shown in Figure 2:
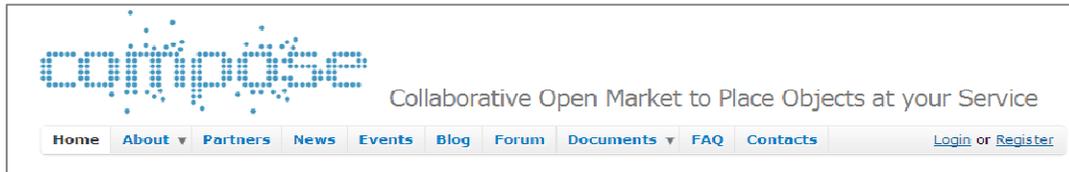

Figure 2: Access to Sections and Menu Bar

Some of these sections (in particular, Forum and FAQ) will not be made visible from the beginning of the project, but they will be enabled when there will be available a meaningful number of people interested in participating into our community.

2.1 Homepage

The first impression of a visitor when accessing our web-site is given by the home page (Figure 3). The main goal of the home page is to provide the visitor with an overview of the project, summarizing the most important information in a single web page.

At an initial life stage of the website, the homepage will contain: the COMPOSE logo; a brief description of the project; a picture, illustrating in a graphic form the main idea of the project; three boxes with the description of the Technical Approach taken by the project, the Expected Impact of the project on a developing market, and a section about innovative Use Cases highlighting different aspects of the platform to be developed.

During project lifecycle, in accordance also with plans for dissemination and stakeholders engagement, some additional sections of the website will be activated:

- *Informative sections:* i.e. Press Release and Events sections; the home page will also contain boxes/widgets showing the most recent or relevant news, events and press releases;
- *Social networking sections:* i.e. Blog, Forums; the home page will also contain boxes/widgets showing the most recent or relevant posts/comments in the blog, and from our channels in the social networks (i.e. LinkedIn, Facebook, Twitter).

When the COMPOSE marketplace and developer portal will be available (as a future feature), the home page will host specific "*Call for Action*" elements (buttons, links, etc.) with the aim to allow users to actively participate, use and directly contribute to the platform.

Figure 3: Compose Homepage

2.2 Registration/Login

All of the sections of the website are freely visible to anonymous users; however, if users want to post comments in the blog and the forum, or create new discussions/threads in the forum and, more in general, actively participate in the initiatives offered by the project, they must be registered.

In the top-right corner of the website there will be the registration widget, which will allow anonymous users to login or register.

In case the user is registering, s/he will be asked to fill a short form (username and email). The form will also ask if the user wants to receive the COMPOSE newsletter (see NEWSLETTER at 2.12).

An email with a confirmation link will be sent to the user. After confirming the registration, the user will be able to set a password that, together with the username, will allow she to login and participate in COMPOSE related activities.

By using a widget connected to an external service (http://www.oneall.com/) the registration has been extended so as to include the possibility to register or login directly using a user's social networks credentials (Facebook, Twitter, Google, LinkedIn, Github, etc.).

At the moment 4 different roles have been defined, and users will have different rights according to their roles. The roles are defined as following:

- *Administrator*: has full access to the website: can create, edit and delete users' roles; can ban unwanted users; can create, edit and delete posts and comments; can create, edit and delete the contents of all the sections of the website.
- *Web Master*: has full access to the website: can create, edit and delete posts and comments; can create, edit and delete the contents of all the sections of the website; can ban unwanted users.
- *Editor*: has full access to one or more sections of the website (blog, forum, events, news, documents, FAQ); can create, edit and delete the contents of the section(s) s/he is in charge of.
- *Registered user*: can post comments in blog and forum, and create new discussions/threads in a forum; can participate in the initiatives offered by the project.

With reference to the COMPOSE project organization, the *Administrator* and *Web Master* roles will be covered by WP8 leader and the project coordinator, the *Editor* role will be associated to project partners being directly involved in the contribution of content for the various sections of the website, while the *Registered User* role may be assumed by any external user willing to participate by commenting, or contributing to the blogs and forums sections of the website.

2.3 About the Project

The section *ABOUT THE PROJECT* contains an abstract of *COMPOSE*, describing the overall idea of the project and its most important facts, in line with the content reported in Section 3.

It is structured into the following subsections:

- Technical approach;
- Expected impact;
- Use Cases;

- Work Packages: description of project plan structure (project work packages).

2.4 Partners

This section shows a list of Partners with their Country of origin, their Logo and the role they have in the project (Figure 4). Each partner has a personal page hosted in the website and accessible by clicking on the partner's name.

Figure 4: Project Partners Section

Each specific partner's personal page will contain: a detailed description of the partner's activity; a detailed description of the partner's role within the project; a list of responsible people involved in the project.

2.5 News

This section will host the information on the project which will appear in the printed and online media. Also, we will include in the section news that are relevant to the project.

2.6 Events

The section EVENTS provides a calendar that presents past and future events which are relevant to the project.

Moreover, this section lists conferences and special sessions during which the project will be presented. This area might also contain videos or other media contents.

2.7 Blog

To allow and encourage the participation in our web-site, we set up a BLOG area where users can read and comment on posts written by a *Blogger* (see below) and, occasionally, by selected members of the project.

The main topics the blog will focus on the history of the project. On every post, users can leave their comments using a provided form. Furthermore, these comments can be rated by other users, offering a way to select the most interesting comments for the COMPOSE web-site users.

The BLOG will have a *Moderator*, so as to avoid the publication of unwanted comments.

For the blog, we have created 2 different roles, each of which has different access rights to the blog (see the REGISTRATION/LOGIN area).

- *Blogger[1]* : the person in charge of writing the posts in the blog; can create new posts, edit and delete posts and comments.
- *Users*: anonymous users can read the posts and the comments visible in the blog; if they want to add their comments to a post, they must be registered to the COMPOSE website (i.e. they need to have the role of "registered user").

2.8 Forum

This is a place where people can discuss about different topics regarding COMPOSE platform and marketplace. It is planned to be used for different discussions with the general public and all involved project stakeholders, and will play an important role in collecting and taking care, inside the project, about what the community is thinking and receiving feedback from opened discussions.

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[1] The Blogger will also have the role of *Moderator*, i.e. this means that he will be able to delete unwanted comments coming from registered users.

2.9   Documents

The section DOCUMENTS will contain all documents that are relevant to the project. These documents will be uploaded to the web-site and both registered and non-registered users will be able to download the documents from here.

The section is divided into several subsections:

- **Deliverables**: the PUBLIC deliverables of the project will be uploaded to the web-site after delivering to the European Commission.

- **Publications:** in this section we will upload the publications of the project (journals, conference papers, book chapters, etc.).

- **Talks and presentations:** in this section we will upload the presentations given in different events.

- **Exhibitions and posters:** results from the exhibitions with dissemination material such as posters, which can be downloaded.

- **Leaflets:** in this section can be found the COMPOSE leaflets used in the different promotional events.

2.10 FAQ

The FAQ section will include a glossary of the most relevant terms, abbreviations and keywords used in the project, along with issues raised.

A WIKI area related to the project might be added during a later stage of the website.

2.11 Contacts

A page containing a list of names and emails of relevant members of the project will be presented.

2.12 Newsletter

Users that, during the process of registration, have selected the option to receive the COMPOSE newsletter, will periodically receive a newsletter written by one or more project members (newsletter editors). The technology necessary to manage the newsletter (not part of the website) will be discussed at a later time.

3 Initial Content for Website Setup

This section reports the content that will be used for the initial setup of the website.

Obviously, this initial content will be changed, adapted and extended during project lifecycle according to project needs, as a dynamic web site for a dynamic project.

3.1 Technical Approach Page

The vision of the COMPOSE project is to advance the state of the art by integrating the IoT and the IoC with the IoS through an open marketplace, in which data from Internet-connected objects can be easily published, shared, and integrated into services and applications. The marketplace will provide all the necessary technological enablers, organized into a coherent and robust framework covering both delivery and management aspects of objects, services, and their integration.

- Object virtualization: enabling the creation of standardized service objects
- Interaction virtualization: abstract heterogeneity while offering several interaction paradigms
- Knowledge aggregation: creating information from data
- Discovery and advertisement: of semantically-enriched objects and services
- Data Management: handle massive amounts and diversity of data/metadata
- Ad hoc creation, composition, and maintenance: of service objects and services
- Security, heterogeneity, scalability, and resiliency: incorporated throughout the layers

3.2 Expected Impact Page

COMPOSE strives for a strong impact on a developing market by lowering barriers to develop, select, combine, and use IoT-based standardized value added services. This will be achieved by providing a complete ecosystem, and having it adopted by enterprises, SMEs, government-related bodies, and individual developers and end-users.

We hope that opening the door to this realm for smaller entities will lead to higher innovation. COMPOSE expects to aid by fostering a developers' community and advocating an open source/interfaces.

3.3 Use Cases Page

COMPOSE design, development, and validation will be based on innovative use cases highlighting different aspects of the platform.

The foreseen use cases are:

- **Smart Shopping Spaces:** this use case will pilot COMPOSE in a shopping environment, focusing on the dynamic composition and delivery of services starting from products available in shops.

- **Smart City (Barcelona):** Ample amount and diversity of sensors are deployed at a Barcelona district under the supervision of a COMPOSE partner. Along with Barcelona's OpenData initiative, COMPOSE intends to showcase life in a smart city by creating a group of city services for the citizens.
- **Smart Territory (Trentino):** With the collaboration of regional network providers, the tourism board, and meteorological data providers, COMPOSE will explore innovative services for tourists. This pilot aims to enhance the tourist experience by exploiting COMPOSE technologies for the creation of personalized, social- and environmentally-aware (web and mobile) tourism services and territory monitoring services that leverage the regional networking and environmental infrastructures

3.4   About the Project Section

COMPOSE aims at enabling new services that can seamlessly integrate real and virtual worlds through the convergence of the Internet of Services (IoS) with the Internet of Things (IoT).

COMPOSE will achieve this through the provisioning of an open and scalable marketplace infrastructure, in which smart objects are associated to services that can be combined, managed, and integrated in a standardised way to easily and quickly build innovative applications.

The project will develop novel approaches for virtualising smart objects into services and for managing their interactions. This will include solutions for managing knowledge derivation, secure and privacy-preserving data aggregation and distribution, dynamic service composition, advertising, discovering, provisioning, and monitoring.

COMPOSE is expected to give birth to a new business ecosystem, building on the convergence of the IoS with the IoT and the Internet of Content (IoC). The COMPOSE marketplace will allow SMEs and innovators to introduce new IoT-enabled services and applications to the market in a short time and with limited upfront investment.

At the same time, major ICT players, particularly cloud service providers and telecommunications companies, will be able to reposition themselves within a new IoT-enabled value chain.

3.5   Fact Sheet

- **Start date:** November 2012
- **End date:** October 2015
- **Duration:** 36 months
- **Project Reference:** 317862
- **Project cost:** 7,40 M€
- **Programme Acronym:** FP7-ICT
- **Programme type:** Seventh Framework Programme
- **Challenge:** Pervasive and Trusted Network and Service Infrastructures
- **Objective**: ICT-2011.1.2-b Internet of Services
- **Contract type:** Collaborative project (generic)
- **Coordinator:** Benny Mandler, IBM Research, ISRAEL

The project Fact sheet can be also downloaded 9in pdf version0 from here, or from the Documents section.