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Description of the new DBE web presence.

Author: INTEL  
Partners contributed: INTEL  
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VERSIONING

<table>
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<th>DATE</th>
<th>AUTHOR, ORGANISATION</th>
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<td>1.0</td>
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2nd Internal Reviewer:  
3rd Internal Reviewer:
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## Contents

1. Executive Summary ................................................................. 5
2. Introduction ................................................................................. 6
3. Structure of the DBE web presence ........................................... 7
4. Site Map ..................................................................................... 10
5. Architecture and Communities of Practice ............................... 10
6. Open Source Communities and Tacit Knowledge Management .... 11
7. CMS - Plone ............................................................................... 12
8. Next Steps .................................................................................. 14
9. Conclusion .................................................................................. 14
1. Executive Summary

The purpose of this document is to describe the new DBE web presence: www.digital-ecosystem.org.

The new DBE web presence is based on the Content Management System (CMS), Plone\(^1\) (http://plone.org) (see section 7 on the CMS-Plone) and is designed to be the primary entry point to information and knowledge built around the DBE project, and, after the funded period of the project, to the DBE sustaining structure. This website aims to provide key features to enable the formation and nurturing of DBE communities. It is evolving to become the official DBE community portal. Over time, it will be the point from which communities will be known and accessible.

\(^1\) Plone is an extensible content management system written in the Python programming language. It is based on Zope. Plone is free software and is designed to be extensible. It can be used as an intranet or extranet server, a document publishing system, and a groupware tool for collaboration between separately located entities. http://plone.org
As the project has progressed to date, the architecture of the website and features offered have been attuned to the behaviour and needs of the current user community as well as to the behaviour and needs of potential new communities such as new Regions, Regional Catalysts, SMEs, Policy Makers and Developers etc.

This stronger evolution of this website as the primary entry point to information and knowledge for the DBE, as opposed to the learning management system Moodle\(^2\), is due to the fact (and has contributed to the key learning) that the DBE community both required and generated more tacit than explicit knowledge in both the first and the second phases of the project.

## 2. Introduction

This document is one of two, which together will document the new DBE web presence.

33.6 Documentation of the New DBE Web Presence (this document) and
33.9 DBE Web presence - content ownership transition report (due Nov 2006)

It will document the reasoning behind the use of [http://www.digital-ecosystem.org](http://www.digital-ecosystem.org) and Plone (plone.org) as the DBE's primary web presence - the open source Content Management System, Plone was chosen as the vehicle for the aggregation and dissemination of tacit knowledge such as that found in blogs and forums and via user registration and communities of practice.

There are four other documents which together describe technical and operational details of the DBE’s Knowledge Platform: an open, distributed and scalable infrastructure which enables the DBE regions to create and provide learning and knowledge content which meets their specific region’s needs, but which also maximises the opportunity for collaboration and reuse of knowledge and content across the DBE.

The five documents are:

- 28.8 Knowledge platform architecture & standards
- 28.6 Guidelines and standards for content creation
- 28.9 Regional knowledge platform implementation blue-print
- 33.8.1 Dissemination Materials
- 33.8.2 Dissemination Materials

From the 3 regional pilots and initial use of Moodle, it was identified that the addition of a Plone block to the initial Moodle infrastructure was necessary. Although the Moodle block can support itself by the formation of communities and the structured learning-based approach, the Plone block considerably improves the user access experience, the navigation and aggregation and dissemination of tacit knowledge, as well as offering workflows and more varied access to the

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\(^2\) Moodle is a learning management system - a free, Open Source software package designed using pedagogical principles, to help educators create effective online learning communities. [http://moodle.org](http://moodle.org)
content depending on the profile (developers, contributors, drivers, end-users). It was observed that tacit knowledge became available earlier in the project than explicit knowledge, such as structured training, and thus the development of Plone is initially more advanced than that of Moodle.

3. Structure of the DBE web presence

As the project has progressed, the website has been improved. The following changes have been made:
- improved navigation: the navigation has been restructured around the “Learn, Explore, Participate” concept. This should enable users of the site to more easily access content and other assets, to learn about the DBE and also to participate. The change of navigation results from the feedback from the Digital Ecosystems Cluster meetings (EU Buildings, Brussels, Feb 06). This concept is explained later.
- Deliverables have been made available from the “Learn” section. The deliverables have been organised by sub-project and domain, so that those interested can restrict their search to the relevant domain: http://www.digital-ecosystem.org/DBE_Main/buttons/deliverables.
- Additional content pages have also been added to the site to help the targeted audience to get started with the DBE, such as:
  - Getting started and how to install DBE studio
  - Regional engagement guidelines
  - Links to existing affiliated and associated regions
  - Information on licensing.

![DBE Web Presence Screenshot]

Figure 1
3.1 **Learn, experience, participate concept**

This concept has been defined to help users to navigate the site more easily, and to thereby enable them to better benefit from the website, its content and tools.

This concept also facilitates the user path from passive receiver of information (learn), to a more active user of the DBE (experience) to becoming a member of the community (participate). It is important to allow for and facilitate this progression, as this is the typical path that community members use. In fact, there is a "gestation period" between the initial interest of the project and actual participation.

The website also seeks to make the environment as progressive and safe as possible for users, allowing them to get familiar with the DBE by “lurking” around the existing communities and project team. (See Figure 1 (1,2,3))

3.2 **Getting started**

This is a specific section to help users get started with the DBE, where to download the necessary software and how to get started in the DBE studio. The link to this information is: http://www.digital-ecosystem.org/DBE_Main/Members/aenglishx/learn/get_started. (See Figure 1 (4))

3.3 **Regional engagement**

During conversations with users of the website and from the Digital Ecosystems groups, the biggest gap identified in the program is in the area of engagement.

We have added specific pages on the website to introduce the engagement process. This content is targeted at regional policy makers and regional catalysts, drivers and SMEs themselves. It should help the regions that are interested in joining the DBE to engage with the team, and after the end of the project, with the structure defined by the sustainability plan.

We have also explained the process and approach used by the current regions of the project. The link to this page is accessible from the DBE home page and under the ‘Regional Focus’ drop down menu. (See Figure 2)
3.4 Subsites

The initial vision for the website was to create sub-sites and organise the content by target audience (SMEs/business, Developers, Researchers and Regional development). This structure is only valuable if there is enough good quality information.

Content generation has been slow throughout the life cycle of the project, and it has been difficult to procure the content for these sub-sites.

During the business domain meeting\(^3\), we decided not to implement the sub-sites until there is enough content to populate the areas.

Due to the nature of the DBE (multi-disciplinary and multi-faceted and the diverse audience), it will still be useful to enable the users to find information and access knowledge relevant to their needs.

We will implement a specific navigation for each target audience, and a “portal” for each audience with direct access to the communities, forums, learning materials, blogs and wikis with the most relevance to this audience. This will help us to implement the initial vision for the website while taking into consideration the needs of the audience. Thus the content will largely be generated by like minded communities.

\(^3\) Held in London, 8-10 May 2006
4. Site Map

The following is a site map reflecting the current architecture of the web presence:

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5. Architecture and Communities of Practice

5.1 **Creation of the integration infrastructure for communities**

It is important that Communities of Practice are known to the other communities and to users of the website, so that anybody interested in the work in one community can go and participate, “lurk” or simply be part of the peripheral environment of this community. To enable this, the community members will have to register their existence and enter some other information - such as the country, language used, moderator’s name, focus of the community and so on - on the website. This will enable us to officially recognise the existence of this community as part of the wider community of the DBE.
5.2 **Navigation to communities of practices**

Once a community is registered on the web site with its information, interested browsers and users can get some more information about this specific community from the DBE site - information, such as number of members, latest posts and events, will be syndicated into the main website. From there, access to this community is possible by simply using the link to it. This functionality has been developed and will be piloted by the regional catalysts.

6. Open Source Communities and Tacit Knowledge Management

6.1 **Explicit Knowledge**

As mentioned previously, the initial vision was to provide learning content on the knowledge platform, in line with the learning strategy defined for the project. It was learned however, that explicit knowledge, in the form of courseware and other structured e-learning material cannot be defined yet, as the technological platform is still in development. It would have been counter productive to define explicit content, which be virtue of being in relation to a development environment, would very soon be out-of-date, and require revision it as soon as a each new version of the code was made available.

We therefore changed the approach, and will be providing a set of tools to enable content creators to post and link to learning blocks from the website. This has been requested as a change in the project plan, and will be submitted in the amendment 6.

6.2 **Tacit Knowledge**

Tacit knowledge will be created and maintained in the communities of practice (COP). COPs will form and will be self-managed, structured, moderated and organised and will create knowledge and expertise using forums, chats and other collaboration tools.

Many Open Source Communities use a similar approach. Progress is slow, however, we are continuing to put this infrastructure in place and enable these communities to form before the end of the funded part of the project to maximise the impact of the value and experience created by the communities.

The knowledge created within these communities will be syndicated in the main website to enable people to access an aggregated view of what is happening in the communities around the DBE. This also allows moderators and animators of communities of practice to be aware of other communities, their work and focus and relate this information back to their own communities. In this way, an idea or

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4 See D28.1. D28.1.1, D28.9, D28.9.1 and D28.10
knowledge generated within a given community could be leveraged and used to enable the formation of an entirely new community.

7. CMS - Plone

The website is based on the open source content management system ‘Plone’, which will enable domain owners to manage the content in their own area of expertise. As this is easy to do, the website and content management system should lend themselves well to being taken over by the community and becoming a self-sustaining structure.

Plone is distributed under the GNU General Public License (GPL). It has a scalable architecture and is also modular so there are different extensions called Products that are written in Python and can be added to extend the basic functionality. Furthermore, anyone can write a new Product extension to meet their requirements or to achieve a desired new feature. This makes Plone very flexible and accessible. (See Figure 3)

The website needs to target a wide range of very diverse target audiences, all with different needs. All of the users that are registered can add and edit content inside a specific Plone user subfolder. There are other subfolders where only users with the required permissions can add and edit content.
8. Status

The current status of the new DBE web presence is as follows:

<table>
<thead>
<tr>
<th>DBE Web Presence</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All deliverables to date uploaded.</td>
</tr>
<tr>
<td></td>
<td>Regional Focus area extended to support Regional Engagement process.</td>
</tr>
<tr>
<td></td>
<td>‘Get Started’ content for the DBE Studio.</td>
</tr>
<tr>
<td></td>
<td>Download section for communication assets extended to include a graphical overview of the DBE, a brochure specifically for developers &amp; technical SMEs.</td>
</tr>
<tr>
<td></td>
<td>Experience, Learn, Participate paradigm supported.</td>
</tr>
<tr>
<td>Dissemination Assets &amp; Movies</td>
<td>Graphical Overview of the DBE Brochure on the identifying features of the DBE aimed specifically at Technical</td>
</tr>
</tbody>
</table>
9. Next Steps

Here are the next steps as defined in the D33.8.1 for each of the components:

<table>
<thead>
<tr>
<th>DBE Web Presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>- train domain owners to enable them to add/create/modify content for their domain</td>
</tr>
<tr>
<td>- transfer ownership to the content domain owners and to the Sustaining structure after the training is completed</td>
</tr>
<tr>
<td>- Implement community registration functionality to enable the formation of expert focused communities and the hosting of domain specific content</td>
</tr>
<tr>
<td>- Communities of practice</td>
</tr>
<tr>
<td>o Syndication from the communities of practice websites – define minimum requirements for moderators so that the site can be easily syndicated from the main website</td>
</tr>
<tr>
<td>- Implement wiki functionality</td>
</tr>
<tr>
<td>- Create a label “DBE partner community” or something similar to recognise that this community is “approved” by the DBE project and foundation</td>
</tr>
</tbody>
</table>

10. Conclusion

The dissemination approach is tightly linked with the research activities. It is important that the dissemination programme and the material created to support the programme take into consideration the target audiences and the way in which these audiences create material and knowledge, interact and learn.

We continue to upgrade the suite of assets and collateral to help build awareness and increase the brand recognition of the DBE.
Infrastructure, tools and assets will be created and edited to support the formation and the management of communities of practices, certification and learning programmes and the dissemination of the benefits and features of the DBE. As the project evolves, the centre of interest will change, the DBE itself will evolve and the areas of focus on the web presence will readjust. The user community’s needs will be supported by tools that will help target the right audience with the right message at the right time, and enable people to discuss relevant topics at each step of the dissemination and engagement process.

We have also made some changes to the approach used in order to facilitate the fact that there is still little explicit content, and the need for this kind of content is less than that of tacit knowledge. We therefore re-adjusted the strategy around the creation of sub-sites and the knowledge platform, and will continue to develop other tools such as community registration, wikis etc to support the revised approach.

We are also keeping in mind that the architecture and functionality of the web presence will need to satisfy the needs of a more mature community and be sustainable after the lifetime of the funded project, and we therefore endeavour to develop the web presence in a way that can be easily taken over by these communities.