DELIVERABLE

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Authors:

Martine Tommis (Manchester City Council)

Reviewers:

Mari Sepponen (VTT)
Ger Baron (AMS)

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1. Executive Summary

The purpose of this document is to describe a collaborative community environment for the IREEN project. It includes the set up and maintenance of a collaborative environment that allows knowledge sharing, comment and discussion amongst project partners, experts and different stakeholders involved in the project. It explores the different options available and the issues involved. LinkedIn is offered as a technological solution pending further discussions with the EC project office.

2. Introduction

The key objective of the IREEN is the successful delivery of a comprehensive strategy for European-scale innovation and the take of information and communication technologies (ICT) for energy efficiency in neighbourhoods.

IREEN DoW describes the Task 1.2 as:

“Task T1.2: Set-up of Collaborative community space

IREEN will leverage the community space set-up for the ICT4E2B forum project to give access to a web-based collaboration site for the IREEN European Community of Interest and its AEG (Advisory Expert Group) members adding a new site to this purpose in the platform. The platform provide various groupware support including document sharing and commenting, feedback and review capabilities, sub-groups on different focus areas, collaboration space for members to share their ideas/views with the IREEN consortium and other members (moderated discussions). The collaboration space will serve as a one-stop location for stakeholders with an interest in ICT for energy efficient districts and neighbourhoods. It will provide reviewed and validated frameworks, best practices, strategies, and roadmaps covering ICT for energy efficient districts and neighbourhoods.

Taking into account that the community space doesn’t offer user’s registration facilities, we will develop a public space in order to obtain registration users control as well as public dissemination of the project to attract the IREEN European Community of interest.”
2.1 Background

The EC fund a number of collaboration projects focused on energy efficiency through the FP7 programme. One aspiration is a shared software platform whereby users could access all projects via one route. The EU have supported ICT4E2B Forum bringing together relevant stakeholders involved in the development of ICT systems and solutions for energy efficient buildings. ICT4E2B consists of a number of forums on the topic with the aim of online collaboration.

The ICT term commonly used is “groupware” i.e. software that provides a structure and means to collaborate and exchange ideas.

The IREEN DoW states that the project would:

“Leverage the community space set-up for the ICT4E2B forum project to give access to a web-based collaboration site for the IREEN European Community of Interest and its AEG (Advisory Expert Group) members adding a new site to this purpose in the platform.”

ICT4E2B uses Drupal 3.1’s content management system (CMS) and the associated collaborative plug-in module. Drupal is a widely used open source content management platform. Open sources means that it is free to use and that the developer user community use, build and support. Project partner ATOS, Spain have been responsible for its technological development and support.

There have however been a number of issues with the ICT4E2B platform as highlighted in this deliverable. The EC project officer for IREEN has been actively involved in these discussions.

At the initial meeting of the IREEN consortium (Amsterdam, October 2011), ATOS (task leader responsible) raised issues with the current iteration of ICT4E2B platform stating that they did not feel it was fit for purpose. Reasons cited were the use of a “no-pay” software version that contained bugs and used a research server at ATOS. ATOS were asked by the meeting to present a report on these issues to the IREEN consortium (see Annex I).

2.2 Related Documents

Three deliverables relate to the collaborative community.

- IREEN Description of Works (DoW)
- D1.1.1 Multi-Disciplinary Community of Interest
- D4.4.1 IREEN Intranet and Portal
- D4.4.2 Dissemination and Awareness Plan – this document describes the strategies to reach and maintain the community.
3. Platform Issues

3.1 ATOS Report
ATOS submitted a report (Annex I), summarising the options to provide a solution to the issues with the current platform:

1. Migration to a new server with Alfresco 3.4
2. Migrate to new server with Alfresco 4.0

As detailed in Annex I, both solutions have a time and cost overheads with Option 2 having a greater overhead both in terms of time and cost. ATOS also stated they felt that the second option is “out of scope” of the IREEN project. The view could also be taken that both are “fixes” rather a solution to the fundamental problem of the stability of the system. Other options were also then considered (see Section 3.2 below).

3.2 Alternatives Solutions
Given the issues with the ICT4E2B platform and as the project coordinator (MCC) is involved in social media and technology, consideration was given to what other options might be available (see Annex II for full report):

3. Develop a new platform using paid 3rd party hosted collaborative platform e.g. a platform such as WordPress and BuddyPress (the WordPress discussion forum). This would mean starting from scratch and imply both time and cost with technical developer skills needed. These are not likely to be skills of a company such as ATOS. Whilst this is longer term solution, it would provide a stable, modern platform going forward. This is considered out of scope of IREEN.

4. LinkedIn is social media for the business/professional community available on the web (using cloud technology). It offers a “Groups” functionality which could be linked to IREEN project website (www.ireenproject.eu). The plus of using an existing platform such as LinkedIn is that people are already on that platform and, in general, trust it. Similar to Facebook, linkedIn’s content is “hidden” behind in a “walled garden” – to access information on LinkedIn, users have to have a LinkedIn account. Note it is not easily possible to take LinkedIn content out of the LinkedIn environment.

The most speedy and cost effective solution was felt to be a LinkedIn group.
3.3 LinkedIn

Using LinkedIn as a community and collaboration platform would enable the IREEN project to engage with interested individuals and experts without the overhead of having to develop an “in-house” collaboration platform. Additionally, given that LinkedIn is a known and trusted platform would be IREEN having to spend less time on enticing users to the custom IREEN collaboration platform. People who want to engage with IREEN via LinkedIn must have an account.

A key reason for choosing LinkedIn as a platform is that users are not being asked to sign up an unfamiliar web space. A member of LinkedIn can join different interest groups (e.g. energy efficiency, open data, cloud technology) and receive an email of updates from a wide variety of subjects. Users can also choose to visit their LinkedIn page and see the latest discussions. Other users are connected and see each other’s group memberships, leading to cross-network collaboration and links. Figure 1 shows the IREEN LinkedIn Group.

![Figure 1 IREEN LinkedIn Group](image)

3.4 Intranet; Events and Other Communications

The IREEN intranet is documented in D4.4.1 and provides a means of sharing documents. Members of the AEG can be invited to this as required. Events relevant to IREEN are published on the IREEN website ([www.ireenproject.eu](http://www.ireenproject.eu)). Other communications will be included in the newsletter. Stakeholders can sign up to LinkedIn via the project website.
4. Conclusion

The collaborative platform is schedule for delivery in M3 in the IREEN DoW. Having examined in detail the ICT4E2B site, the view of ATOS is the current system is not fit for purpose. The issue of the provision of a multifunctional website that allows all the energy efficiency projects to appear in one place is ongoing with discussions between ICT4E2B and the EC office (INFSO H4 "ICT for Sustainable Growth")

The immediate preference is for social media where the audience already utilising the tools as opposed to asking users to come to a dedicated web space. Large corporations e.g. BBC (largest online budget in the UK) use social media for this reason. Another advantage is the elimination of overheads in terms of technical support with reliability and functionality assured.

In the longer term IREEN will work with the EC to implement any solution as required.
5. Annex I Technical Approach and Design IREEN Platform

Author: ATOS Submitted to IREEN Consortium, December 2011

Currently the platform runs under Alfresco environment. Concretely Alfresco WCMS and Share tools version “Alfresco Community v3.4.0”.

It has the following features:

- Satisfies project requirements
- Compatible with EC – DG INFSO internal technologies
- Open source tool

On the other hand, there are strong limitations related to this technology:

- No account creation request included
- No public site feasible
- Beta version, Not stable for all browsers
- Bugs pending of resolution

Regarding hosting, right now it is under a server property of Atos with the following features:

- Hardware and software features:
  - SO Centos 5.5 final.
  - Tomcat 5.5.26.
  - Mysql 5.1.48.
  - 3.6 GB RAM.
  - Intel(R) Xeon(R) CPU E5506 2.13GHz.
  - Allocated in the DMZ Development and Testing property of IT Atos Spain.

Open issues:

- Due to the issues by Alfresco (beta version), the platform wasn’t compliant with Atos internal requirements for deployment on the production servers. It was installed in a development server.
- Due to it is a beta version, the platform is not completely stable and generates some problems.
- Use of system resources may not be optimized in this beta version. As a result the application has sometimes exhausted some system quotas (i.e. number of simultaneously open files), thus resulting into application malfunctioning. (. We react to these issues but can hardly foresee them.
- As a channel of dissemination, from our experience it is not properly. Users only access to it for a few seconds and most of them don’t use it again.
Solution analysis

From Atos, we have analysed the following solutions:

- Perform a migration to a new production server owned by Atos with higher performance and extending the existing memory. At this moment as Alfresco has been running for some time in our development and test servers we are allowed to use the production servers owned by Atos.

To accomplish this change we will do the following:

Install the Alfresco v3.4 as it is now in the other server.

Migrate all the content that exists right now to the new platform installed.

These actions will take an effort of approximately 5 person days (full time) but system administrators in charge of this task cannot work full time on this, so it would take more days.

Doing these actions, the content of the platform will remain like it is right now.

- Another option would be to install a more stable version which is the v4 of Alfresco.

Then we would have to deal with data migration from v3.4.0. There is no extensive documentation on this process and no certainty that all types of content (especially those created through Share application) could be transferred automatically. Some parts of the content could require manual transfer and all of them should be revised thoroughly.

However, this action would take an effort that we estimate in 15 person days (full time), with the same shared time restriction. This seems to be out of the scope of the project.

Due to the limitation of Alfresco regarding the user account creation request, it is necessary to agree that MDD will take into account this issue creating a form in the public space of IREEN to get the information of new users and manage the creation of their accounts into Alfresco platform.

It will be necessary to redo the link between the content published in the private blog and the public blog in the public site of the project for dissemination.

Finally, the proposed solution from Atos is the use of an Atos tool called Project Portal 2.0 developed in Drupal in which we have got a lot of experience. This technology covers all the needs of the project, and don’t imply to migrate manually all the content currently existing in the platform. This platform will be used only by the Ireen project.

Project Portal 2.0 is the evolution of a previous tool (Project Portal) widely used in:

- Atos European projects as coordinator and as member
- Other external projects, proposals and collaborative instruments
It has the following main features:

- Web application built on Drupal CMS and PHP
- Developed under open source license (GPL)
- Multisite approach with a unique access point to all the user’s projects
- Integrated Extranet/Intranet at the same application
- Flexible look&feel to adapt it to user’s image
- Easily customizable to the user specific requirements: menus structure, access rights, type of reporting, new tools, etc.

This tool covers all the needs of the project because it has the following functionalities:

- **Calendar**
  
  The Calendar allows the users to insert all the project events (meetings, workshops, fairs, reviews, …). For the meetings, the user may manage to create, agree a date, agenda, minutes, presentations, etc.

- **Address Book**
  
  Offers a quick access to all organizations and people involved in the project reports (photo, e-mail, phone, role in the project, etc.).

- **Mailing/Forum**
  
  Forum facility with mailman server integrated. This function allows creating distribution lists in the project.

- **My account**
  
  This function allows the user to customize his personal data

- **Administration**
  
  This part includes
  
  - web site administration for publishing content in the public part;
  - users administration for creating new users in projects;
  - menu administration for configuring the structure of project environment menus;
  - Drupal administration for managing the installation and configuration of project environment installation.

- **Filedepot Features**
  
  The filedepot module is full featured Document Management module that has a google docs like feel. It fulfills the need for an integrated file management module supporting role and user based security. Documents can be saved outside the Drupal public directory to protect documents for safe access and distribution.
- Intuitive and convenient combination of features and modern Web 2.0 design provides the users with the familiar interface to organize and find their files. Cloud Tag and File tagging support to organize and search your files.

- Files of all type can be stored in filedepot. The module admin allows you to define the allowable file extension and mime types.

- Flexible permission model allows you to delegate folder administration to other users. Setup, view, download and upload access for selected users or roles. Any combination of permissions can be setup per folder.

- Document tagging allows users to search the repository by popular tags. Users can easily see what tags have been used and select one of multiple tags to display a filtered view of files in the document repository.

- Users can upload new versions of files and the newer file will automatically be versioned. Previous versions are still available. When used with the desktop client, users can have the hosted file in filedepot automatically updated each time the user saves the file - online editing.

- Users can selectively receive notification of new files being added or changed. Subscribe to individual file updates or complete folders. File owner can use the Broadcast feature to send out a personalized notification.

- Convenient reports to view latest files, most recent folders, bookmarked files, locked or un-read files.

- Users can flag document as 'locked' to alert users that it is being updated.

It is important to mention that using this solution, the platform will be stable and the availability of it will improve a lot. This tool also offers the possibility to manage the users account requests in the same tool and send emails with news and document update to the users.

Also it is possible to reuse the current design of the public site already done by MDD.

The effort planned to develop this solution can be covered within the scope of the project with some changes.

Here you can see some examples of other projects that use this tool, concretely the repository:
6. Annex II Collaborative Web Tools

Author: MDDA – Submitted to IREEN EC Project Officer, February 2012

Manchester Digital Development Agency 2012-02-02

Collaborative Web Tools

Groupware Introduction

The EC are funding a number of energy efficiency “collaboration” projects via the FP7 Programme. A preferred means of communication for the projects is to share a “software platform” whereby a user could access projects in one environment or “groupware”, (defn. software that provides structure and means to collaborate, exchange ideas, debate, decide, and coordinate activities).

A one stop shop for discussion and sharing.

The intention would seem a system that means each project does not have to reinvent the functionality and that users can find numerous related project information in one location. From the users’ viewpoint, this means they would have one user account on one system and be able to use their single account details to “join” the groupware for individual projects.

This document works on the assumption that this is the type of functionality the EC had in mind.

A good example is www.communities.idea.gov.uk/welcome.do

![Figure 1 Communities of Practice Landing Page](image-url)
ICT4E2B Forum - Current Status

This is an outline of the ICT4E2B site – however it may not be wholly accurate due to difficulties in the interpretation the exact functionality of the system. For example not all areas are fully populated e.g. the blog

ICT4E2B is a time limited project and expires 2012-10-31. **The ICT4E2B Forum** was established as a vehicle with the aim to “build-up a knowledge community with a clear business focus for translating ICT challenges for energy efficient buildings into a new generation of products/processes and services”. The forum acts as a project website for ICT4E2B providing a range of functionality including forum discussions; project documents; blog updates and wikis.

We undertook usability testing at MDDA using staff with a high level of web expertise – they were unclear as to the site navigation and confused by the title “ICT4E2B Forum” and then the link to a “Forum”.

To contribute to a forum on the ICT4E2B website, you must first register a user account on the website (Figure 1), and then request to be member of a specific forum, such as the ICT4E2B Roadmapping Site. Once your request to join a forum has been accepted by the administrator of the forum, you are given access to it.
Figure 3 ICT4E2B Site Forum

Figure 4 ICT4E2B Roadmapping Site
The assumption is that discussions posted on the Roadmapping Site feeds via an RSS to the forum web site (we could not verify during a live test -it maybe that a moderator has to authorise before posting). From the Roadmapping site the user can also view other activity related to similar projects/topics and hyperlinks to other projects. There are approx 110 members.

Figure 3 shows links to other Alfresco groups – the Data Models entry appears blank (maybe a system error). The ICT for Energy Efficiency: Local and Regional Initiatives links to a series of case studies / examples.

The platform was set up and is managed by project partner ATOS (Spain) technically. Content is supported by DAPPOLONIA (Italy). It is built using an Open Source community / “no pay” version of the Alfresco software platform, (The same platform is used by other EC project participants such as IBBT in Brussels - IBBT use the platform as an internal project management tool or Intranet. It is worth noting they have full time member of staff who manages the system).
IREEN Project

IREEN has a dissemination website www.ireenproject.eu. This is intended to be the “public dissemination” for the project. In addition to this, the DoW of IREEN it states that the project will use the same platform as ICT2E2B as a project collaboration tool. Ideally, there would be one point of contact for the project – website and collaboration tools at one URL.

Task T1.2: Set-up of Collaborative community space

IREEN will leverage the community space set-up for the ICT4E2B forum project to give access to a web-based collaboration site for the IREEN European Community of Interest and its AEG (Advisory Expert Group) members adding a new site to this purpose in the platform.

The platform provide various groupware support including document sharing and commenting, feedback and review capabilities, sub-groups on different focus areas, collaboration space for members to share their ideas/views with the IREEN consortium and other members (moderated discussions). The collaboration space will serve as a one-stop location for stakeholders with an interest in ICT for energy efficient districts and neighbourhoods.

It will provide reviewed and validated frameworks, best practices, strategies, and roadmaps covering ICT for energy efficient districts and neighbourhoods. Taking into account that the community space doesn’t offer user’s registration facilities, we will develop a public space in order to obtain registration users control as well as public dissemination of the project to attract the IREEN European Community of interest.

At the first meeting of the IREEN partners (Amsterdam – October 2011) ATOS stated that they did not believe the Alfresco platform was “fit for purpose”. Reasons cited were using “no pay” software that contained software bugs as well as being built on a research server. Following the meeting ATOS made an options proposal sent to the IREEN coordinator December 2011. See Annex I. Both options presented require investment in infrastructure and technical skills.

The key issue is to consider options for IREEN and also for groupware for an EC collaborative space.

Groupware Platform Options

The key advantage of a groupware platform is to provide, for a single login access to a community of thinkers and interested parties. There are a good many on the web and professionals are often members of a number of different ones.

In recent years our expectations of our online experience have risen and old style, slow, difficult to navigate software presents the user with a negative view both of the content and the user journey. Sites which have million euro + investments e.g. Amazon, raise our expectations.
Any software comes with overheads – both in terms of the technical build and maintenance and in the management resource. Additionally the housekeeping and content e.g. moderation, stimulate of topic discussions. The development of a groupware platform specifically for EU energy projects is not a small undertaking. The reality with any web project is that they have a 5 yr lifespan after which technology and the web have moved on meaning that new and more efficient options become available.

The cost of paid groupware is priced at internal use (charged by numbers of users or “seats”). Groupware in this context needs capacity for unlimited users. Increasingly a hosted or cloud based solution is more effective for large numbers of users.

It would be useful to understand if the intention that this is only for the project lifetime i.e. time limited period and that the close of the particular project, another could take over the management / support. Post ICT4E2B and then IREEN, the product would be picked up via another project?

Social Media

LinkedIn is social media for the business/professional community. The “Groups” function on Facebook operates in a similar way.

The positives of using an existing platform such as LinkedIn is that people are already using that platform and, in general, trust it. They are not being asked to sign up to yet another web space they are unfamiliar with which has been set up for one specific purpose (e.g. to support an EC grant funded project). If I am a member of LinkedIn I can join lots of interest groups (e.g. energy efficient, open data, cloud technology) and receive an email of updates from a wide variety of subjects. I can also choose to visit my LinkedIn page and see the latest discussions. Other people I am connected to can see my group memberships and this can lead to cross-network collaboration and links.

Using LinkedIn as a community and collaboration platform would enable the IREEN project to engage with interested individuals and experts without the overhead of having to develop an “in-house” collaboration platform. Additionally, given that LinkedIn is a known and trusted platform would be IREEN having to spend less time on enticing users to the custom IREEN collaboration platform.

There are indications that users prefer this approach as they only have visit one place for all their participatory activity. For example, the BBC (which has the largest online budget in the UK) has their media manager’s forum on LinkedIn – they could have created their own collaboration platform but chose not to.

People who want to engage with IREEN via LinkedIn must have account on LinkedIn. Similar to Facebook, LinkedIn’s content is “hidden” behind in a “walled garden” – if you want to access information on LinkedIn, you have to have a LinkedIn account. Repurposing LinkedIn content on other websites (via the LinkedIn APIs http://developer.linkedin.com/), requires support from a software / web developer and associated time / cost. It is not easily possible to take linked in content out of the LinkedIn environment.
Figure 5 – LinkedIn Groups

**Options**

**Option 1:** ATOS give 2 options (See Annex I: p2 Solutions Analysis of their report)

a) Migration to a new server with Alfresco 3.4  
b) Migrate to new server with Alfresco 4.0

Both have time and cost overheads. b) has much greater overhead both in terms of time and cost. ATOS have suggested b) is “out of scope” of IREEN. Our view is that both are “fixes” rather than solutions.

**Option 2:** Develop a new platform using paid 3rd party hosted collaborative platform e.g. a platform such as WordPress and BuddyPress (the WordPress discussion forum). This would mean starting from scratch and imply both time and cost with technical developer skills needed. These are not likely to be skills of a company such as ATOS. Whilst this is longer term solution, it would provide a stable, modern platform going forward. Out of scope of IREEN.

**Option 3:** Use LinkedIn “Groups” functionality linked to IREEN project website (www.ireenproject.eu). This would need means revising the need for groupware functionality the purpose of wikis and other functionality.

**Conclusions**

IREEN is in M6. The collaborative platform should have been available in M6. It is 24 month project and this issue needs to be urgently addressed.

As you will read there is no straightforward solution. Our perception is you want a groupware (multifunctional) website that allows all the energy efficiency projects to appear in one place. We have looked in detail at the ICT4E2B site and have to confess to begin confused by the functionality and structure. Our conclusion is that there is no quick and easy solution to the issue. Our preference is for social media in that it is where
the audience are rather than looking to ask people to come to a web space you create. Large corporations e.g. BBC are going this route. The other advantage is that there are no technical overheads in terms of technical support. However I fully appreciate that this does not meet the EC aspirations of one space for similar projects.

Martine Tommis (Digital Development Officer): In collaboration with: Paul Spensley (Digital Development Officer); Alan Holding (Head of Technology MDDA):2012-02-02