Web Portal

SmartCoDe

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1 Introduction

To foster the integration of the SmartCoDe results into global concepts, an energy-positive local cluster Electronic Dissemination Platform (EDP) is developed during the project's life time. The portal will serve as a centre of excellence, where all parties relevant to the "Energy Efficient Buildings"- topic can connect and exchange knowledge. SmartCoDe's Exploitation and Dissemination Manager will actively foster the integration of related web portals, groups, companies, and research projects into this network, while special attention is paid to the aspect of interdisciplinary knowledge transfer. By including a wide spectrum of interested groups, the dissemination platform lays the foundation for de-facto standards in power management strategies and methods also beyond the project's life-time.

The concept is supported by Expert Coordination Workshops, Press Releases and participations to other related conferences to sensitise the public community to the overall goals.

The web-portal of D-5.1.1 is the first step to SmartCoDe's EDP (D-5.1.2). Basic functionality has already been set up and initial services have been provided. This document gives information about the current status of the EDP. An own chapter has been dedicated to planned functions and services to be included in the EDP until 12/2010 (due-date D-5.1.2).

2 Home Page

The SmartCoDe entry page gives a quick overview on the project's goals, challenges and impact via the menu items on the left hand side. The entry page is further constructed in a way that important news are displayed in the main (middle) part of the page in a chronological order. Figure 1 shows the entry page, status as of March 15, 2010.

The *Welcome* contents on the middle-top of the page is '*sticky*', i.e. it stays in that position no matter what additional entries may be added to the lower section. Via a *Read More* button the full text can be accessed. It is scheduled to enhance the *Welcome* text by an animation (see chapter 7.5).

Below the *Welcome* text SmartCoDe news are displayed in chronological order. All texts are displayed only with the first text segments (the '*teaser*') and a *read more* button. In this way most effectively lots of information can be provided in limited space.

Figure 1 below shows the news for the SmartCoDe project presentation at the *Design Automation and Test in Europe* conference (DATE) as well as a link plus download of the interview with SmartCoDe partners TUV and ECN on the well known system design web site *SCDsource* (www.scdsource.com).
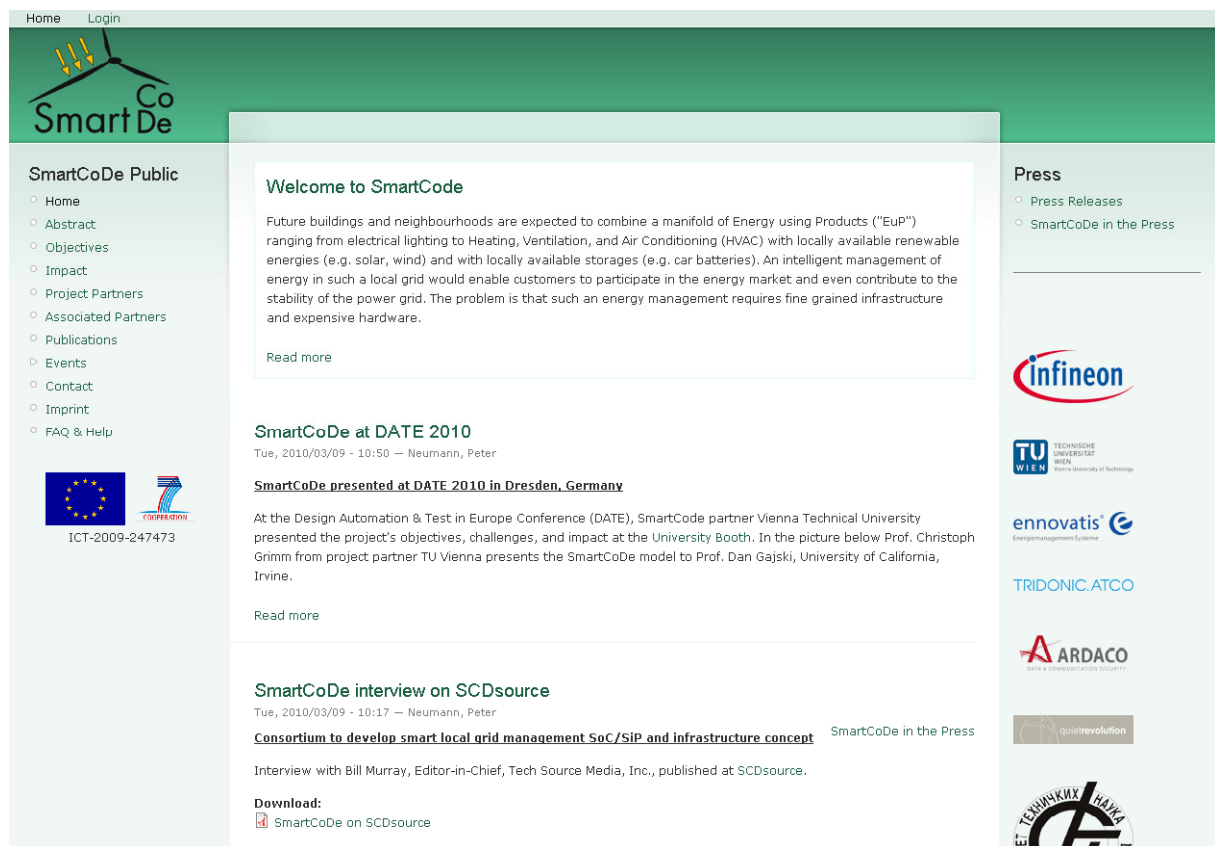
Figure 1: SmartCoDe Entry Page

On the left hand side of the SmartCoDe public appearance more detailed information is given on the project's goals and impact. Information is provided on actual project partners and so-called Associated Partners, i.e. project partners that are not funded but have signed a Letter of Intent to be available for knowledge exchange. The current status of the Web Site further includes menu items for project publications and events (SmartCoDe Expert Workshops as well as events with SmartCoDe participation). The following chapters will outline the setup of these items.

2.1 Project Overview: Abstract

When referencing the SmartCoDe Web Site for the first time it is important for the visitor to understand what the project is about. If this can not be achieved quickly, the visitor will probably leave the web site without having understood the overall idea.

For this reason it is important that we structure what we want to communicate into:

- The overall setup
- Our goals
- What will happen if the project reaches its goals

This information can be provided effectively either via animation (see chapter 7.5) or via clearly structured written pages, i.e. *Abstract*, *Objectives*, *Impact*.

The project's abstract is shown in figure 2. It is important that all basic ideas are communicated in a condensed form so that page scrolling is not required.
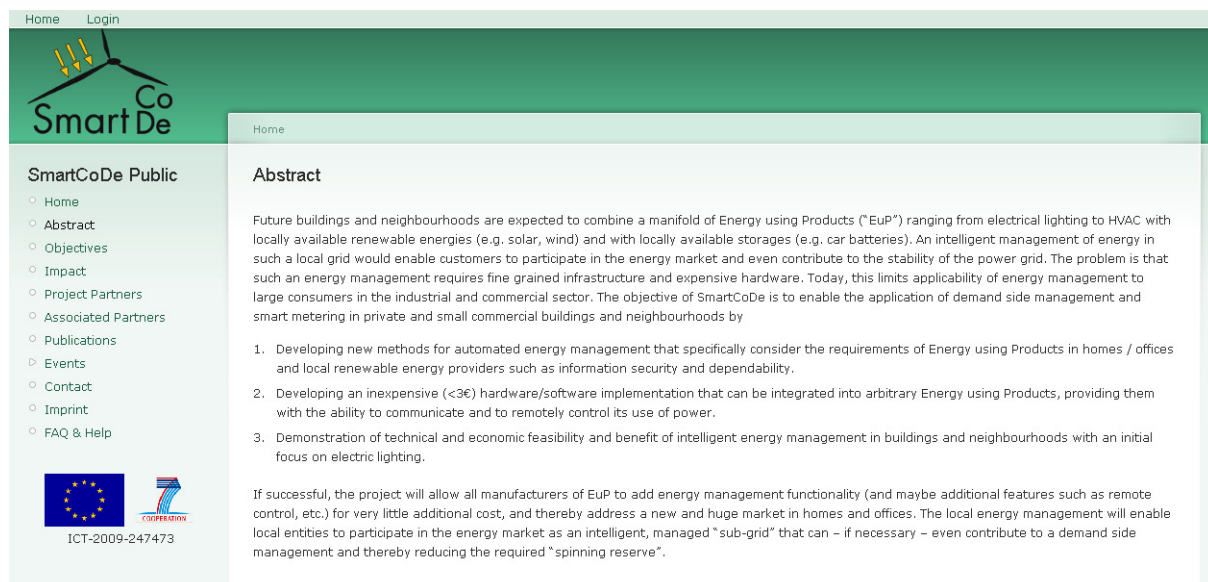
Figure 2: SmartCoDe Abstract

2.2 Project Overview: Objectives

If a user has been attracted by the abstract, the objectives will inform about the goals of the project. User interest can now be assumed, so the objective text can be more detailed. Figure 3 shows the SmartCoDe objectives page.
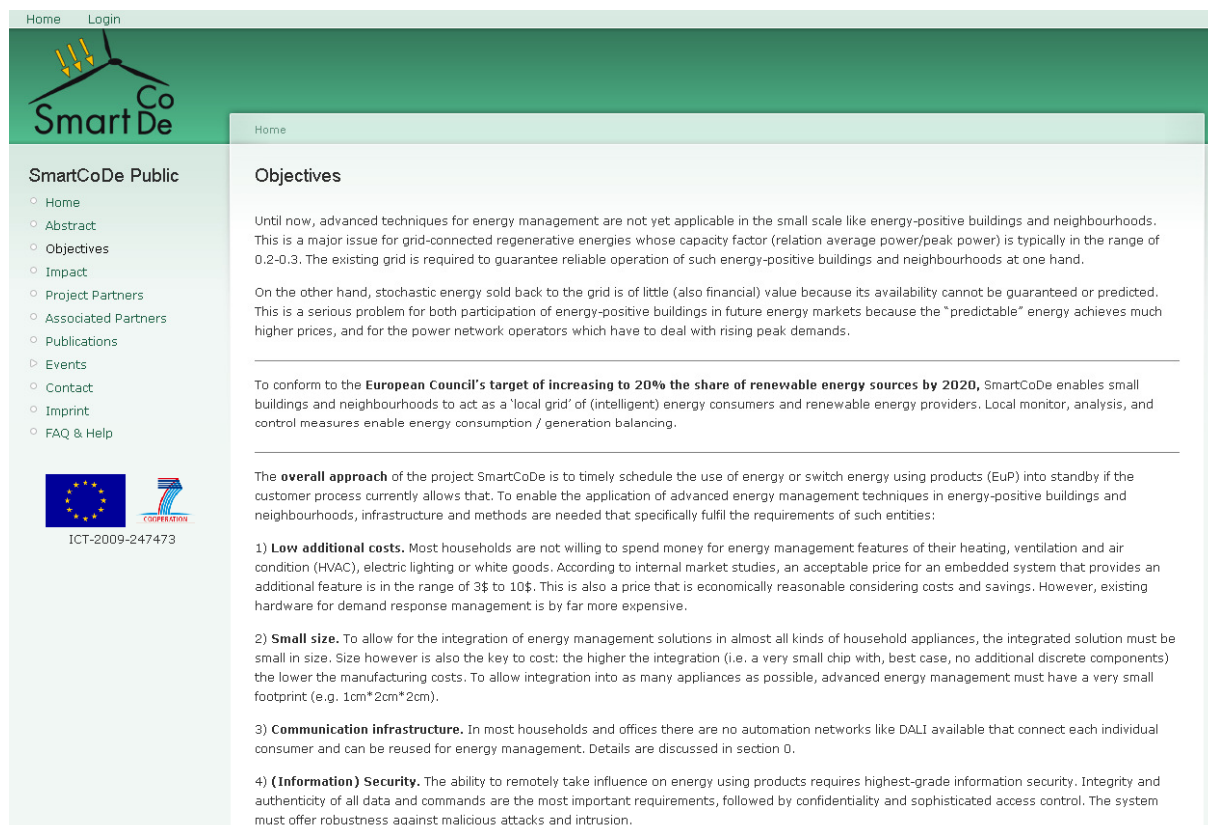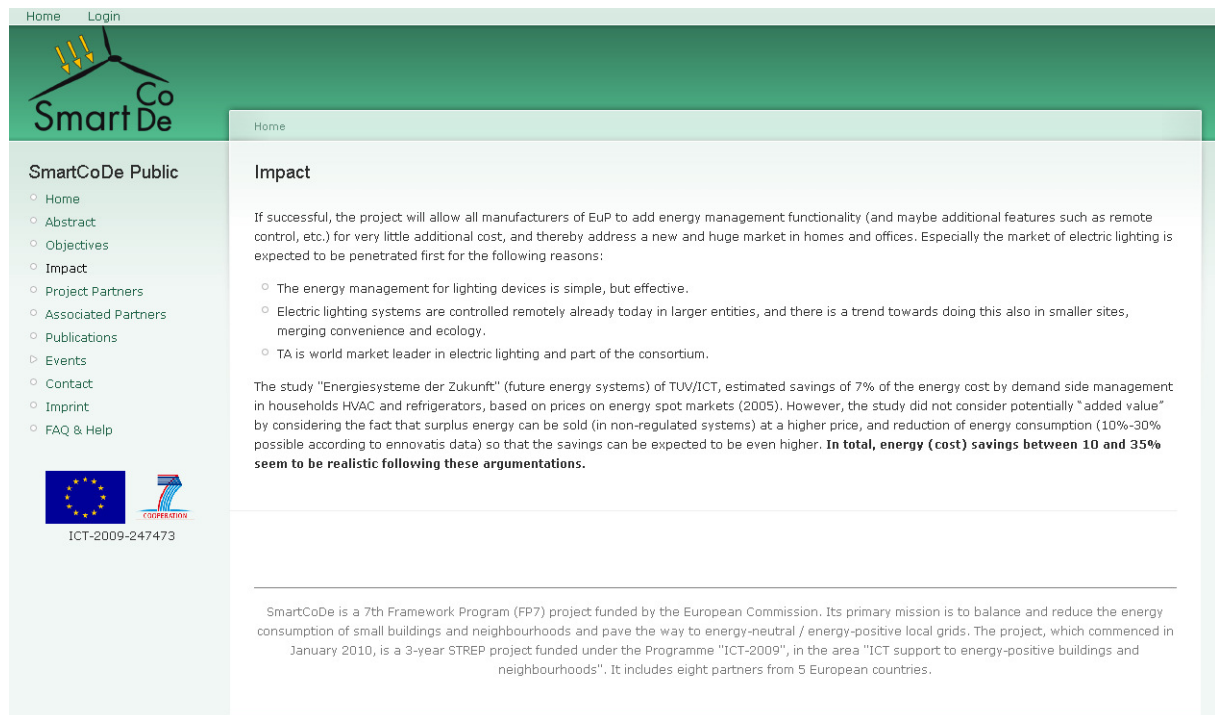

Figure 3: SmartCoDe Objectives

2.3 Project Overview: Impact

Energy is a hot-topic all over the world. So the impact of the project is of high importance. Figure 4 shows the impact page. As it is the case with the *Abstract* information, also this page should be

condensed to the most important facts since it may be looked up as a "Management Summary / Conclusion".
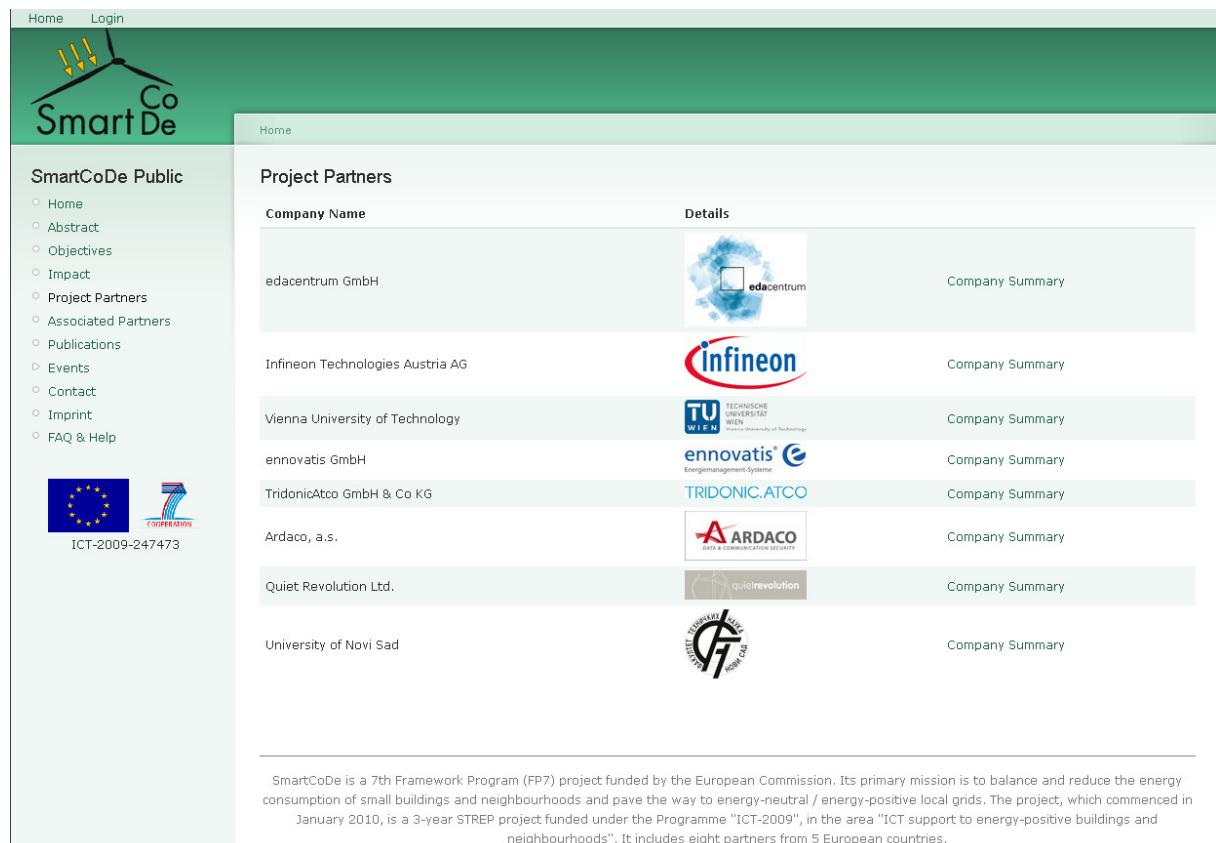

Figure 4: SmartCoDe Impact

3 Partners

SmartCoDe differentiates between two kinds of partners:

- Project partners, which have acceded the project's Grant Agreement and have full access to all (internal) project data.

- So-called *Associated Partners* of the project, which have not acceded the Grant Agreement and do not have access to project-internal data.

The highly innovative character of the project requires intense contact to adjacent industries and research institutes. SmartCoDe therefore included the construct of "Associated Partners" into the project.

3.1 Project Partners

In addition to the secure internal project working area for the project partners described in Delivery Report D-5.7 an overview of the consortium is also given in the public area. Apart from the partner logos displayed on the right hand side of the SmartCoDe entry page (see figure 1), each partner provides logo and brief company / university description on a dedicated page. Figure 5 shows the project partner overview in list form with a link button to the company overview.
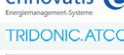

Figure 5: Project Partner Overview

Figure 6 shows the structure of the company overview page (example: Infineon Technologies Austria AG). Relevant contact data completes the company summary.

It is important to understand that the underlying user / participant profile database for the Dissemination Platform is the same as the one used for the Electronic Project Office (see deliverable D-5.7, report). This implies that registered users / participants are known and can be referenced, i.e. in this case the company profile is set into relation to the registered contact person of the respective company which can be chosen from the list of registered project partners. For the future it is planned to also establish the relations to company address data. This procedure ensures that (administrative)

data is only input once to the system and if required at other pages it is referenced instead of duplicated (erroneous). This procedure assures a consistent administrative data management.

Figure 6: Project Partner Company Summary

3.2 Associated Partners

Associated Partners (AP) are non-project partners who will give input (advice, statistical data, etc.) from adjacent industrial / research areas and comment on the project's targets and objectives. The APs are connected 'loosely' with the project via a Letter of Intent (LoI). The AP's Logo and brief company / institute description is published on the SmartCoDe web site. In addition the AP has free entry to all SmartCoDe Expert Cooperation Workshops.
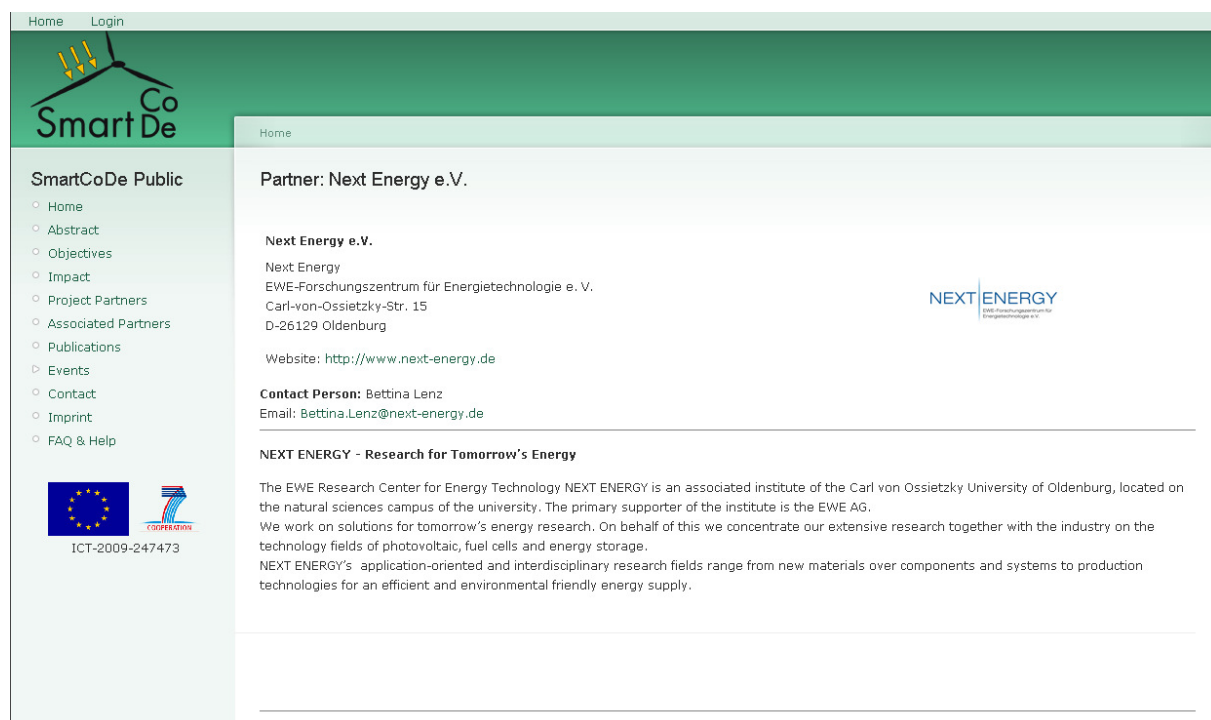
If required Associated Partners will be asked to sign confidentiality agreements to ensure protection of intellectual property rights.

Figure 7 shows an example of an Associated Partner company summary. The full list is available at: https://www.fp7-smartcode.eu/show/associated_partners.

Although look and feel of this page is similar to the page described in the previous chapter 3.1, the internal handling of data is different. Currently, contact person data and company data has no connection to the overall user / participant database mentioned in chapter 3.1.

It is however planned to enable Associated Partners to register at the Dissemination Platform and become known user (see also 7.1). Via the complex roles and rights management structures of the underlying Content Management System (CMS) the Associated Partners will be able to access 'Secure Rooms', i.e. areas which, although they are project internal, have only access to (and visibility of) data which has been explicitly released to the AP by the project consortium.

Secure Rooms are required if project-internal data is discussed with Associated Partners. This could be the case, for example, if an Associated Partner has signed a Non Disclosure Agreement (NDA) prior to data release.

Figure 7: Project Associated Partner Company Summary

4 Events

This area within the web platform holds events where SmartCoDe is either the host / organizer (*SmartCoDe Events*) or events where SmartCoDe is participating (*External Presentations*).

The current status of the *Event* area is display-only, i.e. information of past and future events is published. The area will be enhanced during project runtime so that event registration, paper submission, etc. will be supported (see also chapter 7.7).

4.1 SmartCoDe Events

SmartCoDe events are first and foremost SmartCoDe Expert Cooperation Workshops as described in Annex I of the Grant Agreement. The first of these workshops will be held on 16 Nov. 2010 in Vienna. Since further details still have to be fixed, there is currently no information displayed here, i.e. there is not even a (public) menu item for the SmartCoDe events. Content is expected to be released to the public in Mai 2010.
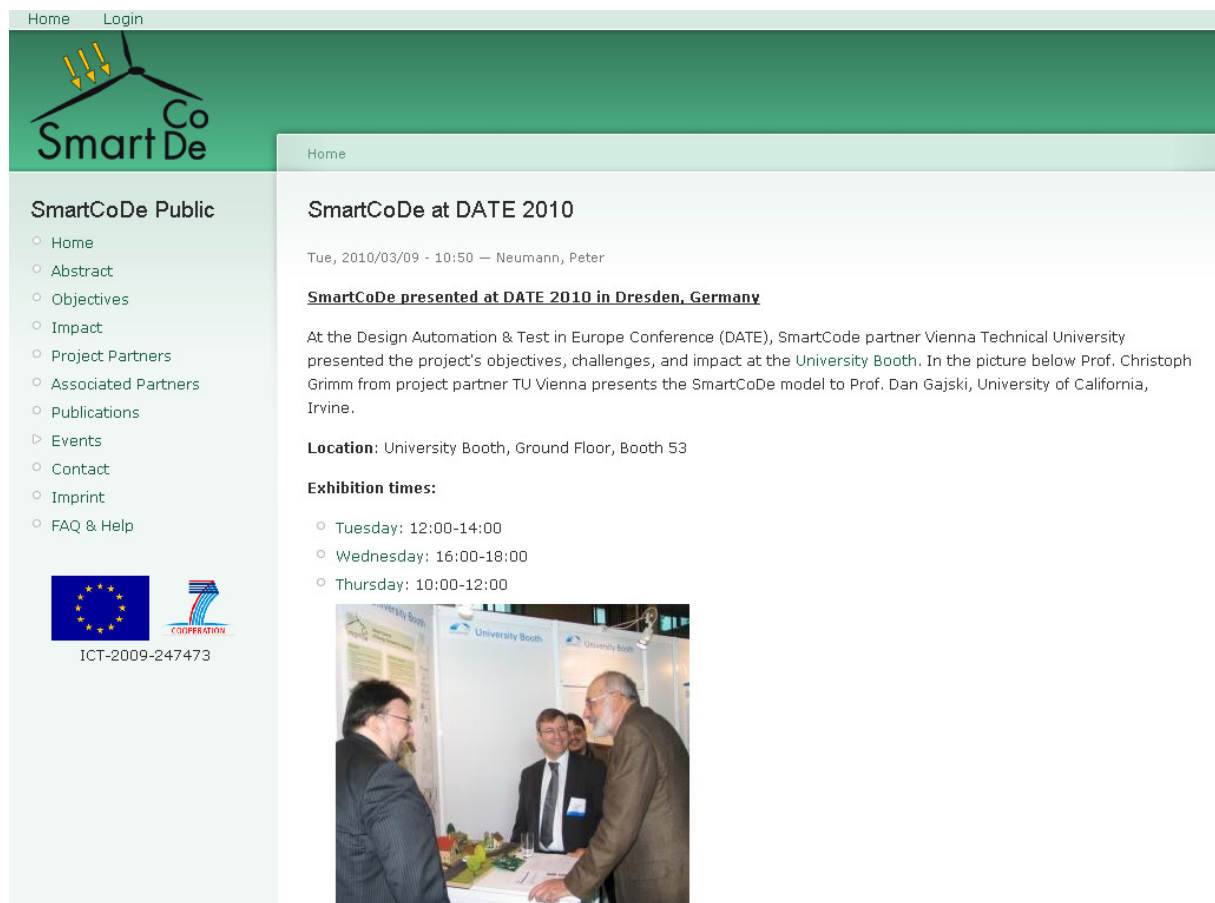
4.2 External Presentations

The External Presentation sub-menu gives an overview of events where SmartCoDe participated and has presented its work to the public.

A first conference participation has already been conducted in March 2010 when SmartCoDe presented goals and impact of the project on the *Design Automation and Test in Europe* conference (DATE), the worlds largest conference for embedded system design.

Figure 8 shows basic information about the event: (see also

https://www.fp7-smartcode.eu/events/externalpresentations/date2010).

Figure 8: SmartCoDe presenting at DATE 2010

5 Press

SmartCoDe's *Press* area differentiates between SmartCoDe initiated press news (*SmartCoDe Press Releases*) and reports of SmartCoDe objectives and impact in the press by other sources.

5.1 SmartCoDe Press Releases

During the project's life time as set of press releases are scheduled. In addition to the release to professional Press Release Distributors these press releases are also made public on the SmartCoDe web space in view and as download. Figure 9 shows a snippet of the SmartCoDe Kick-Off press release page from 22 March 2010 (in this context please see also chapter 6, Analysis).
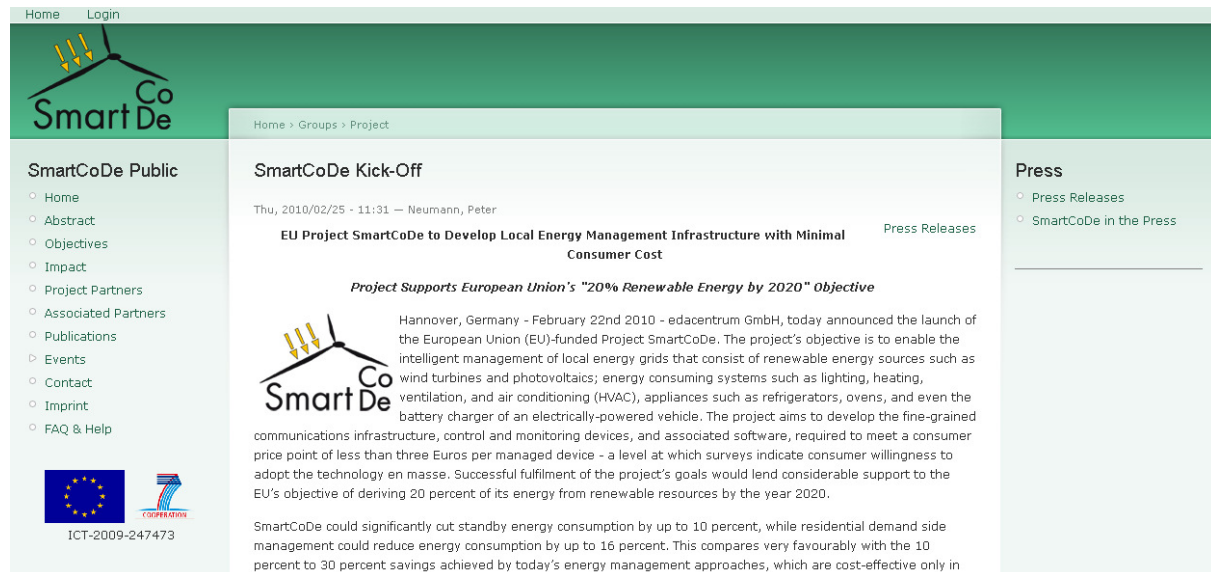
Figure 9: SmartCoDe Kick-Off Press Release

5.2 SmartCoDe in the Press

ECN is constantly monitoring the web for references to the project. In addition, ECN actively identifies options to promote the project. This for example has been the case with the SCDsource interview mentioned in chapter 2 of this document.

Relevant references are presented booth, as link to the origin (if static), and as copy, in case the original page vanishes over time. Figure 10 shows the In-The-Press overview page.
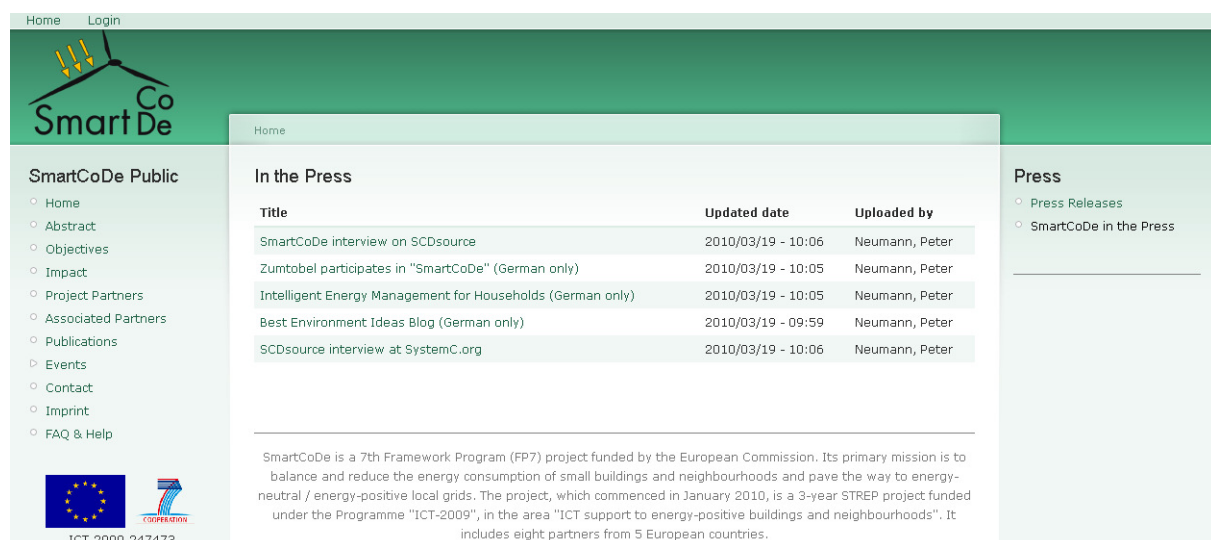
Figure 10: SmartCoDe In-The-Press Overview

Selecting a specific title displays the full information. Figure 11 shows the SmartCoDe reference on the well-known *Open SystemC Initiative*.

Figure 11: SmartCoDe at SystemC.org

6 Analysis

To understand the interests of web site visitors and to monitor the effect of public relation activities of the project a user behaviour analysis module has been implemented in the web portal. With the help of this analysis module, user information about page visits, time spend on pages, entry pages, exit pages etc. can be tracked. Tracking this information can help in making a web site more attractive to users and to fine tune public relation actions.

It can further help to identify information a user has explicitly been looking for when coming to the web portal and could lead to actions that shift topics most demanded to more prominent places.

Figure 12 show one of the analysis features (here: page view analysis) within the time-frame of 16 February 2010 to 17 March 2010. The peak following 22 February 2010 is due to the SmartCoDe Kick-Off Press Release on 22 February 2010.

Please note that all user information is anonymous, i.e. no information of the analysis module can be linked or tracked to the identity of real persons.

Top Content

15 Feb 2010 - 17 Mar 2010
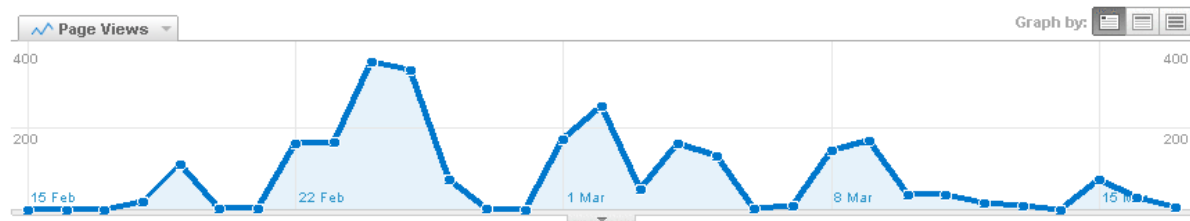
156 pages were viewed a total of 2,591 times

Page Views	Unique Page Views	Avg. Time on Page	Bounce Rate	% Exit	$ Index
2,591	**1,456**	**00:01:22**	**39.53%**	**14.94%**	**$0.00**
% of Site Total: 100.00%	% of Site Total: 100.00%	Site Avg: 00:01:22 (0.00%)	Site Avg: 39.53% (0.00%)	Site Avg: 14.94% (0.00%)	Site Avg: $0.00 (0.00%)

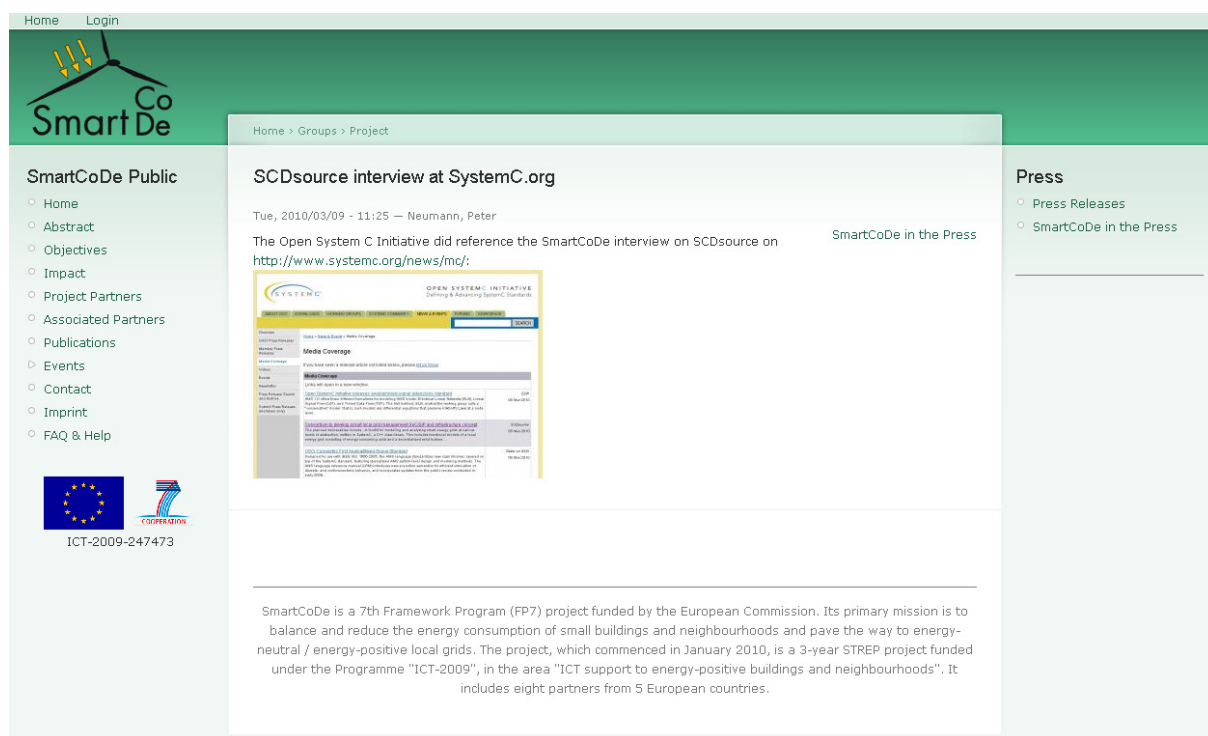|	Page None	Page Views	Unique Page Views	Avg. Time on Page	Bounce Rate	% Exit	$ Index
1.	/	495	283	00:01:37	48.96%	36.77%	$0.00
2.	/show/project_partners	160	82	00:00:43	10.00%	11.88%	$0.00
3.	/user	148	70	00:00:44	0.00%	6.08%	$0.00
4.	/press/pressreleases/pr1	133	22	00:02:08	66.67%	7.52%	$0.00
5.	/events	114	50	00:00:59	18.18%	7.02%	$0.00
6.	/show/associated_partners	110	54	00:01:10	35.71%	12.73%	$0.00
7.	/events/externalpresentations/date2010	88	18	00:02:00	0.00%	5.68%	$0.00
8.	/abstract	79	51	00:02:30	0.00%	5.06%	$0.00
9.	/press/pressreleases	59	20	00:01:04	0.00%	3.39%	$0.00
10.	/objectives	57	49	00:00:46	66.67%	24.56%	$0.00

Figure 12: Page View Analysis

7 Outlook: Electronic Dissemination Platform

7.1 Authenticated User

The knowledge of a user's identity is mandatory for the portal to provide additional services like newsletters or polls. The plan is to attract a growing public community to the project so that project achievements are disseminated in an optimal way.

The CMS underlying the SmartCoDe Web Portal offers the possibility of highly complex user role management whereas the *Authenticated User* role can be regarded as a generic role that is defined to grant access to specific functions and services of the EDP. *Authenticated Users* are persons that have registered to the portal (i.e. they have a known identity) but do not have access to any of the internal SmartCoDe areas. Further roles can be assigned to the portal user in an add-on manner (see chapter 7.2).

7.2 Dedicated Non-Project Partner User Group & Role Structure

Target is to set up a system of portal groups and roles to enable the separation of users which are not project partners into several classes of users. An example is the role of Associated Partners introduced in chapter 3.2.

Goal is to target web content, functions, and services to specific user needs / demands and thus making the SmartCoDe dissemination platform more attractive.

If dedicated confidential items (documents, forums, etc.) shall be made available to a certain class of users (e.g. a non-project company that is interested in exploiting project results) this can be easily achieved while leaving the public out. Confidentiality of content can be easily administered. A web portal is established where a large user community can be supported while visibility / accessibility of contents is provided in a fine-grained manner depending on the project's requirements.

7.3 Public Download Area

The SmartCoDe dissemination platform will provide a public download area. Data available will include public project reports and deliverables, workshop proceedings, a section for keynote videos, research map(s), etc.

All download items available will be enhanced by meta-data to further specify the item. Meta data will include:

- Multiple author selection from the underlying user profile database
- Abstract field to enable full-text search features
- Technical classification of the document
- File upload

7.4 Content Distribution Driven by User Interests

The concept of the Electronic Dissemination Platform (EDP) provides measures for the classification of data (see chapter 7.3). On the other hand, chapter 6 of the SmartCoDe EPO deliverable D-5.7 defines the SmartCode user profile, which is implemented in the database that is accessed by both, the EPO and the EDP.

The plan is to set content classification into relation with user profiles. The outcome will enable the user to display portal content according to his / her user profile (i.e. the user 'interest') on demand. This procedure enables the portal user to target the visible portal contents to his / her explicit requirements thus enhancing the SmartCoDe portal attractiveness.

7.5 Animation

To effectively explain the project's objectives to the public community it often helps a lot to make use of pictures / film sequences. The SmartCoDe project will provide an animation (a video sequence) on what the project is about and how the various project parts fit together to support the EU's 2020 energy objectives. ECN is currently working on its specification (the "animation script").

7.6 Online Demonstrator Interface

The dissemination platform will integrate the interface to the demonstrator installation in Vienna as described in Appendix I of the Grant Agreement. A near-real time data transmission will deliver energy generation / consumption data from the demonstrator hardware at the ennovatis (Austria) location to the dissemination platform at edacentrum GmbH (Hannover, Germany). The generation / consumption data is displayed in near-real time in a sufficient graphical format (curves / diagrams, etc.) together with a video stream showing the local renewable energy generators (wind turbine / solar panel), allowing conclusions on the actual weather conditions relevant for the generated data.

These measures are set up to demonstrate to the public society the benefit of (near-real time) "Awareness" of energy generation / consumption of buildings and neighbourhoods, even under remote conditions. They further serve to demonstrate to the public the effects of "Energy Planning", i.e. the control mechanisms of the SmartCoDe energy management to reduce, to shift, or to switching off energy consumption, taking into account the local generation (i.e. availability) of energy while targeting a balanced energy consumption / generation curve at the interface to the global provider.

Although measures to enable the online demonstrator interface will be implemented until 12/2010 demonstrator online analysis data and video stream will not be available until the actual demonstrator launch. First results are expected to be available at 6/2011.

7.7 Event Management Support

To support SmartCoDe events, a set of functions and services will be made available to the potential attendees, including:

- Online registration

- Paper upload functionality

- Provision of maps and available hotels

- Event newsletters (see also 7.9)

- Administration of attendee data

- Administration of event dates

- Support of serial letters

- Statistical analysis

Event proceedings, pictures, etc. will be published as part of 7.3.

7.8 Forums

Forums will be made available for the various topics addressed by SmartCoDe. Forums will be accessible only to authenticated users.

Depending on the forum topic they will be set up as either *open* or *moderated*. In the latter case the webmaster has to approve access to a forum and therefore grant access only to a specific user group. This procedure is required if confidential data is involved in any way.

7.9 Survey / Poll Functionality

A survey / poll functionality will be implemented to the Electronic Dissemination Platform that allows consulting of dedicated user groups, based on roles and rights assigned. Surveys and polls are important utilities to address two major issues:

- First, when setting up a web platform, one of the basic problems is that the provider of the platform is 'blind', i.e. since there is no direct user feedback, identification of user demands is tricky. User behaviour analysis, as described in chapter 6, is one method to find out if the structure of the web portal is straightforward enough to lead the user to the information he / she is looking for. Surveys and polls are another method. Since the portal is based on authentication of users, the latter can be interrogated directly.

- Second, surveys and polls can be set up for the refinement of the project's objectives itself. The SmartCode project has a lot of interfaces to other research areas, so it might be necessary to fine-tune the project's objectives to optimally place it in the overall context of the energy efficiency.

7.10 Newsletters

Periodical newsletters will be provided to the portal user while making use of the role structure described in chapter 7.1 and 7.2. Control of newsletter subscription for registered users will be implemented within the myAccount area via simple check-box mechanism.