ICT-257626 ACROPOLIS Date: 31/01/2012







# Advanced coexistence technologies for radio optimisation in licensed and unlicensed spectrum

# (ACROPOLIS)

## **Document Number D2.3**

#### Second Release of the Web Portal

Contractual date of delivery to the CEC: 31/01/2012
Actual date of delivery to the CEC: 31/01/2012

**Project Number and Acronym:** 257626 - ACROPOLIS

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Security: Public (PU)
Nature: Report
Version: 1.0
Total Number of Pages: 45

#### Abstract:

This Deliverable describes the ACROPOLIS Web Portal's look, functional components and collaborative tools. As it is the second report addressing this issue, it presents the current status of the portal in view that various changes and additions have been made since Deliverable D2.2 was published in January 2011. This Deliverable also describes some of the features that are intended to be added to the portal at an appropriate later stage, and gives instructions on how to utilise some of the most pertinent aspects of the portal's functionality.

**Keywords: Website, Web Portal, Content Management** 

# **Document Revision History**

Version	Date	Author	Summary of main changes
0.1	18.10.2011	Kamil Chudaś (EIT+)	Initial structure of the document.
0.2	28.10.2011	Kamil Chudaś (EIT+)	First update of initial ToC.
0.3	19.11.2011	Kamil Chudaś (EIT+)	Second update of the ToC.
0.4	30.11.2011	Oliver Holland (KCL)	Third update of the ToC.
0.5	16.12.2011	Kamil Chudaś (EIT+), Paweł Kamiński (EIT+), Radosław Piesiewicz (EIT+)	The first round of contributions.
0.6	18.01.2012	Oliver Holland (KCL)	Significant rewrite of much of the document and merging in of KCL contributions.
0.7	20.01.2012	Kamil Chudaś (EIT+)	Review of the merged content.
0.8	20.01.2012	Oliver Holland (KCL)	Revision before submission to the Executive Committee; some minor further editing may still be required.
0.9	30.01.2012	Kamil Chudaś (EIT+)	Update in accordance with the Executive Committee's remarks and suggestions.
0.95	30.01.2012	Oliver Holland (KCL)	Further minor changes for finalisation.
1.0	31.01.2012	Oliver Holland (KCL)	Implementing suggestions from EIT+ and further minor changes for finalisation.

# **Table of Contents**

	Introduction	
2.	ACROPOLIS Public Website	
	2.1 Home	5
	2.2 Overview	6
	2.3 Partners	7
	2.4 Deliverables	8
	2.5 Dissemination	8
	2.6 Key Contacts	10
	2.7 Calendar	
	2.8 News	12
	2.9 Announcements	
	2.10 Conference CFPs	
	2.11 Journal CFPs	
	2.12 Related Links	
	2.13 Industry Section	
	2.13.1 Industry Partnership Program	
	2.13.2 Industry Workshops	
	2.13.3 External Advisory Committee	
	2.13.4 Interview with an Expert	
	2.13.5 Download	
	2.13.6 Collaboration	_
	2.13.7 CR-related Webpages	
	2.13.8 ACROPOLIS Homepage	
	2.14 Discussion Forum	
	2.15 E-Newsletter subscription module	
	2.16 Newsflash	
_	2.17 Important ACROPOLIS events module	
	ACROPOLIS Private Portal	
4.	ACROPOLIS Mailing Lists	
_	4.1 Current Implementation	
5.	Upcoming Features of the Web Portal	
	5.1 Download Manager	
	5.2 Geomapping/Geotagging	
	5.3 Enhanced News Scroller	
	5.4 Opinion Polling	
_	5.5 Surveying Tools	
	User Guide	
	6.1 Website Navigation	
	6.2 Creating an Account	
	6.3 Publishing Content	
	6.4 Publishing event banner	
	6.5 Download Manager	
/. 0	Glossary and Definitions	43 41
	•	44

## 1. Introduction

To facilitate interaction and information sharing between ACROPOLIS partners, as well as information sharing from ACROPOLIS to the outside world, an appropriate web-based portal is required. Work package 2 was established in order to create and maintain such a portal. In ACROPOLIS Deliverable 2.2 [1], the first release of the ACROPOLIS Web Portal was reported, where all implemented functionalities and features were described in detail. This Deliverable provides an updated view on the portal, particularly indicating what has changed and what is to be implemented, but also, for completeness, covering much of the ground that was available in Deliverable 2.2. Several new tools and capabilities are integrated into the portal or are in the process of being implemented, covering a range of functionalities. These features are carefully selected and configured from the wide range of "Components", "Modules", and "Plugins" that are freely available in the utilised content management system for the portal, "Joomla!" [2].

This Deliverable therefore mirrors Deliverable 2.2 in many ways, reflecting the current status of the portal and incorporating the changes that have been made. Some of the most significant aspects to the portal which are added or in the process of being added include the industry section of the portal, addition of a discussion forum and possible chat capabilities, a download/content manager, geographically-capable elements (e.g., as might be used for mapping developments, or for advanced features such as a radio coverage map), an e-newsletter subscription module, newsflashes and an event banner. Furthermore, additions to the mailing lists, updates to the portal's look to the end-user and some other minor changes have been made.

It is noted that although this Deliverable presents a major milestone in the development of the portal and its associated functionalities, such web-interactive aspects are constantly tailored within ACROPOLIS to serve the changing needs of partners and the project. Hence, the content and capabilities of the portal might yet change after the development of this Deliverable.

#### 2. ACROPOLIS Public Website

The ACROPOLIS Website is the main electronic medium through which information regarding the project, its important announcements and technical outputs are provided to the outside world. Since the writing of Deliverable 2.2, some minor adjustments have been made to the website's look and general structure. As regards the general layout, a list has been added on the right of each page summarising ACROPOLIS events, and a newsflash area has been added. Moreover, adjustments to the borders of elements in the ACROPOLIS Web Portal have been made, reusing the same tiled graphics as in the main menu in order to match that the style of that.

A new banner has been created and placed at the top of the site, using the banner handling functions in "Joomla!". Moreover, a banner below this has been added in order to announce upcoming ACROPOLIS events. Each of these banners can work as a link, so by clicking it, an appropriate webpage will be opened. Multiple banners can also be uploaded to the system for display in a given location; in such cases, these banners can automatically alternate dependent on the rules defined by the portal administrators. Detail on managing this feature is available in Section 6 of this Deliverable.

#### **2.1** Home

The home page is the first point of entry to the website from the <a href="www.ict-acropolis.eu">www.ict-acropolis.eu</a> domain. This page presents a welcome to the project, and general introductory text summarising the project. Moreover, it continues with some information on recent and upcoming events and announcements, primarily given through text means.

The changes that have been implemented on this page, since Deliverable 2.2, primarily correspond to rewording of the text provided as well as the updating of information on events.

Figure 2-1 depicts the current home page of the website.



Figure 2-1: ACROPOLIS website home page.

#### 2.2 Overview

The "Overview" page of the ACROPOLIS website gives a summary of the purpose of the project, as well as some statistical detail on the project including that on its range of participants. The changes that have been implemented on this page, since Deliverable 2.2, include a rewording of the "Purpose" text as well as the addition of the statistical information.

Figure 2-2 depicts the current "Overview" page of the website.



Figure 2-2: ACROPOLIS website "Overview" page.

#### 2.3 Partners

The "Partners" page of the ACROPOLIS website summarises the list of partners involved in the project, and their logos. These contents have not been changed since Deliverable 2.2 aside from formatting changes such as alignment.

Figure 2-3 depicts the current "Partners" page of the website.



Figure 2-3: ACROPOLIS website "Partners" page.

#### 2.4 Deliverables

The "Deliverables" page summarises the Deliverables of the project. Moreover, it categorises Deliverables into the work package that they originated from. Changes applied since Deliverable 2.2 include a restyling of the way Deliverables are presented, into work package categories, as well as the addition of links to download the Deliverables that are completed.

Figure 2-4 depicts the current "Deliverables" page of the website.



Figure 2-4: ACROPOLIS website "Deliverables" page.

#### 2.5 Dissemination

The Dissemination page lists the Dissemination outputs of the project. The only change made to the structure of the Dissemination page since Deliverable 2.2 is the addition of two sub-sections: "Books and Book Chapters" and "Other ACROPOLIS Outputs". As before, joint outputs are listed first, followed by the single partner publications.

Figures 2-5 and 2-6 depict the current "Dissemination" page of the website.



Figure 2-5: Start of the ACROPOLIS website "Dissemination" page.

5. B. Bojovic, N. Baldo and P. Dini, "A Neural Network Based Cognitive Engine for IEEE 802.11 WLAN Access Point Selection", 9th IEEE Consumer Communications and Networking

Date: 31/01/2012

P. Kryszkiewicz, A. Kliks and H. Bogucka, "Signal Shaping for PMSE Protection" accepted for publication at 7th Karslruhe Workshop on Software Radio, Karlsruhe, Germany, 7-8 March 2012.

#### Books and Book Chapters

#### Joint dissemination:

- Joint book chapter: H. Bogucka, P. Kryszkiewicz, A. Kliks, and O. Holland [PUT-KCL], "Holistic approach to green wireless communications based on multicarrier technologies", Book chapter accepted for publication in "Green Communications: Theoretical Fundamentals, Algorithms, and Applications", Auerbach Publications, CRC Press, Taylor&Francis Group
- Joint book chapter. D. Quintas, O. Holland, H. Aghvami, an H. Bogucka [KCL-PUT], "Overview Energy Saving Techniques for Mobile and Wireless Access Networks", Book chapter accepted publication in Handbook on "Green Information & Communication Systems", Elsevier, 2012

- 1. O. Holland, C. Facchini, H. Aghvami, O. Cabral, and F. Velez, "Opportunistic Load and Spectrum Management for Green Radio," chapter appearing in the book E. Hossein, V. Bhargava, G. Fettweis, *Green Radio Communication Networks*, Cambridge University Press, 2011 2 B. Zayen and A. Hayar, Primary Outage-based Resource Allocation Strategies, Intech, Cognitive Radio Systems, Ed. Samuel Cheng, ISBN 978-953-307-643-0. —IN-TECH book chapter
- A. Bantouna, K. Tsagkaris, V. Stavroulaki, P. Demestichas, "Machine Learning applied to Cognitive Communications", to be published in Cognitive Communications: Distributed Artificial Intelligence (DAI), Regulatory Policy & Economics, Implementation. H. Zhang and D. Grace, J. Wiley and Sons
- 4. A Bantouna, K. Tsagkaris, V. Stavroulaki, P. Demestichas, "Learning Techniques for Context Diagnosis and Prediction in Cognitive Communications", to be published in Cognitive Communications: Distributed Artificial Intelligence (DAI), Regulatory Policy & Economics, Implementation. H. Zhang and D. Grace, J. Wiley and Sons

#### ACROPOLIS Presentations

1. Sylwia Romaszko, Presentation of the ICT-ACROPOLIS Project at the 6th FP7 concertation meeting, Brussels, Belgium, 18-20 October 2010 (project factsheet: 125 FP7ICTCall5\_AcropolisFactsheet.pdf)

#### Other ACROPOLIS Outputs

- L. de Nardis, O. Holland, et al., "Proposed Terms and Definitions from the ICT-ACROPOLIS Network of Excellence," IEEE 1900.1 meeting, Brussels, Belgium, June 2011.
   J. Hoffmeyer, O. Holland, "Terms and Definitions Proposed by the ICT-ACROPOLIS Network of Excellence of Relevance to 1900.5," IEEE 1900.5 working group, under consideration.
   O. Holland, L. De Nardis, H. Bogucka, "Local link proximity and channel awareness for energy saving in IEEE 1900.6," IEEE 1900.6 working group meeting, Berlin, Germany, Sept. 2011.

Figure 2-6: End of the ACROPOLIS website "Dissemination" page.

#### 2.6 Key Contacts

The "Key Contacts" page summarises the main contacts of the ACROPOLIS project, as defined in the Executive Committee at the time of preparation of this Deliverable.

Figure 2-7 depicts the current "Key Contacts" page of the website.

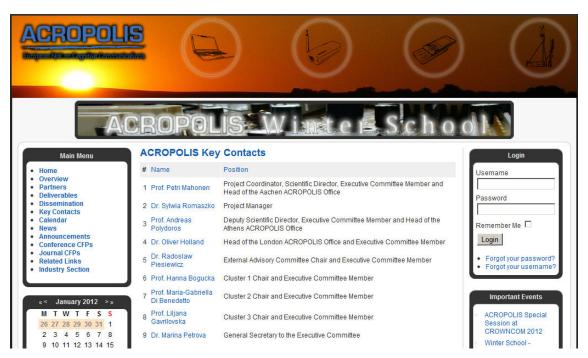


Figure 2-7: ACROPOLIS website "Key Contacts" page.

#### 2.7 Calendar

The Calendar presents information on events that are being planned or will be planned by the project or within the project. It allows zooming in to events on a particular day or a range of desired timescales to view occurrences at an appropriate scale of detail, and clicking on an event to view more detail on that event. Editing of the calendar can be done through the ACROPOLIS back-end or front-end interfaces; front-end editing is achieved by logging in to the site with appropriate permission having been granted for the user in question. The editing process for the Calendar is intuitive.

It is noted that a smaller, also clickable, version of calendar appears as a "Joomla!" module on the left of the site. Little change has been made to the Calendar since Deliverable 2.2, aside from changes to the style of the side-menu calendar.

Figure 2-8 depicts the current "Calendar" page of the website.

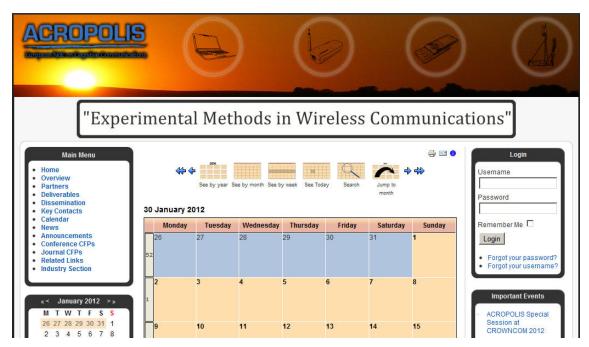


Figure 2-8: ACROPOLIS website "Calendar" page.

#### **2.8 News**

The News page is a newly added section which comprises noteworthy information related to coexistence technologies such as cognitive radio being worked on in ACROPOLIS. The majority of the available articles are based on external news sources with relevant announcements from the industry sector. It is intended for such news to incorporate more detail on announcements/updates from other research projects related to cognitive communications (available in e-Newsletters) and a continuously updated list of relevant external webpages. It is emphasised that now the ACROPOLIS web portal provides both project partners and the external audience with broader and more comprehensive information from the whole world of cognitive radio.

Figure 2-9 depicts the current "News" page of the website.



Figure 2-9: ACROPOLIS website "News" page.

#### 2.9 Announcements

Since Deliverable D2.2 has been completed, the former Announcements and CFPs page has been split into three independent pages: "Announcements", "Conference CFPs" and "Journal CFPs". Such arrangement is both clearer from the audience point of view and more convenient in terms of relevant information managing in the back-end panel.

The "Announcements" page includes a range of announcements on the project, indicating the achievements and information that should be spread widely.

Figure 2-10 depicts the current "Announcements" page of the website.



Figure 2-10: ACROPOLIS website "Announcements" page.

## 2.10 Conference CFPs

In the Conference CFPs page an up-to-date list of conference call for papers is presented. Obviously, collected information refers to the events being in line with ACROPOLIS' interests.

Figure 2-11 depicts the current "Conference CFPs" page of the website.

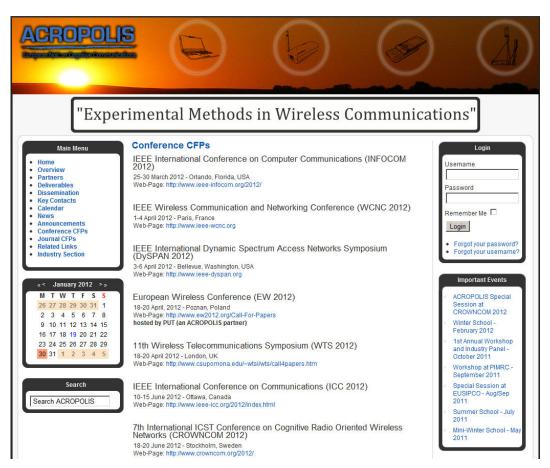


Figure 2-11: ACROPOLIS website "Conference CFPs" page.

#### 2.11 Journal CFPs

Analogically to the section 2.10, on the Journal CFPs page up-to-date journal calls for papers related to cognitive and cooperative communications are presented.

Figure 2-12 depicts the current "Journal CFPs" page of the website.



Figure 2-12: ACROPOLIS website "Journal CFPs" page.

#### 2.12 Related Links

The "Related Links" page provides links to sites on the internet of interest and relevance to the ACROPOLIS project. This includes other projects of relevance, and intellectual exchange forums in areas of DSA and CR, for example.

Minor updates to the links presented on this page have been made since Deliverable 2.2.

#### 2.13 Industry Section

In order to facilitate efficient industry-related information exchange, as well as fast and more effective dissemination of NoE results among industry representatives, a corresponding section has been added on the ACROPOLIS web portal. It is accessible via the "Industry Section" link in the webpage's main menu. The Industry Section of the ACROPOLIS Web Portal comprises information on the Project's Industry Partnership Programme and all its initiatives. Furthermore, noteworthy news and references to other interesting web sites devoted to cognitive communications in industry sector are also presented. Each item below of Industry Section's menu is briefly described.

## 2.13.1 Industry Partnership Program

The Industry Partnership Program page (see Figure 2-13) provides the reader with basic information on the goals and foreseen activities to be prepared and conducted by ACROPOLIS WP16. Thus, it is reasonable to set this page as a "home page" of the whole Industry Section.



Figure 2-13: ACROPOLIS website "Industry Partnership Program" page.

#### 2.13.2 Industry Workshops

The Industry Workshops page (see Figure 2-14) may be treated as a self-contained section of the ACROPOLIS Web Portal. Here announcements and detailed information on upcoming and past project industrial events is collected. In particular, each consecutive ACROPOLIS Industry Workshop will have its own area with a dedicated menu on the right side of the web site. Thus, the reader will be provided with that information in a very straightforward way. Furthermore, various different types of event outputs (e.g., presentations and papers) and records (photos, videos, etc.) will be retained here paying careful attention to appropriate copyrights and permissions. The 'start page' of the sub-website devoted to the 1st ACROPOLIS Industry Panel is presented in Figure 2-14.



Figure 2-14: Sub-section devoted to the 1<sup>st</sup> ACROPOLIS Industry Panel.

#### 2.13.3 External Advisory Committee

The External Advisory Committee page (see Figure 2-15) lists all members of the ACROPOLIS External Advisory Committee, and their biographical notes including photos.

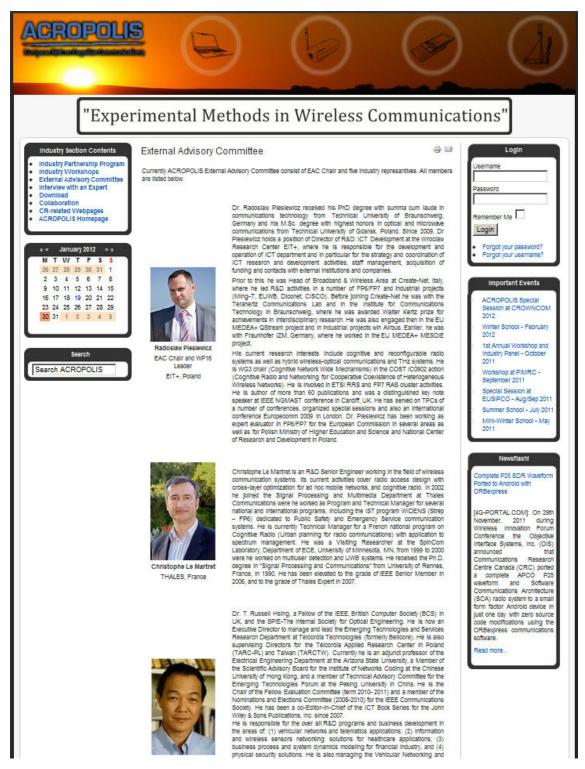


Figure 2-15: List of ACROPOLIS EAC members.

#### 2.13.4 Interview with an Expert

In order to facilitate ideas and opinion exchange between ACROPOLIS researchers and industry representatives, comprehensive interviews with experts on the cognitive communications field have been arranged. In the Interview with an Expert subsection every such interview will be published. For the reader's convenience, biographical notes and

page is depicted in Figure 2-16.

photos of respective interviewed experts will be provided. The "Interview with an Expert"



Figure 2-16: Interview with an Expert page.

#### 2.13.5 Download

The Download page (see Figure 2-17) comprises the power point presentation on the IPP and all consecutive issues of ACROPOLIS e-Newsletter as well as other IPP-related documents.

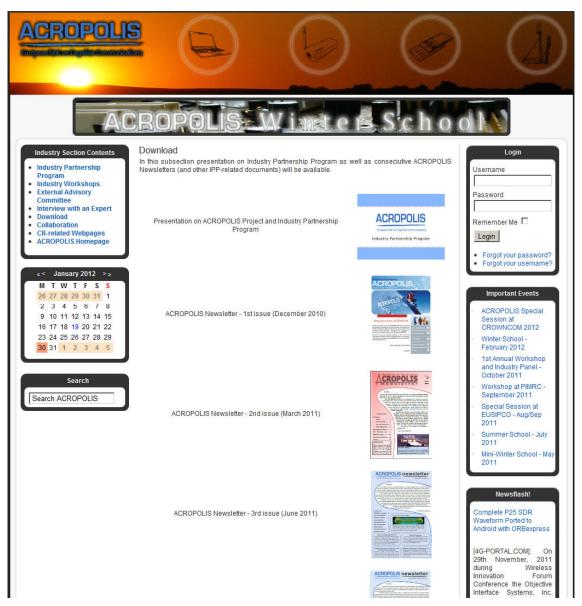


Figure 2-17: Download page.

#### 2.13.6 Collaboration

On the Collaboration page (see Figure 2-18), all ACROPOLIS external partners (commercial companies, institutes, organizations, internet portals etc.) will be listed as a reflection of ACROPOLIS Network of Excellence live interaction with outside entities interested in cognitive communications. It has to be noted that partners' logos will be published abiding by appropriate policies.



Figure 2-18: Collaboration page.

#### 2.13.7 CR-related Webpages

In order to facilitate establishment of new collaboration with external bodies as well as to collect in one place comprehensive information on the most important groups and institutes interested in cognitive communications, useful links to relevant webpages are listed in the CR-related Webpages subsection (see Figure 2-19). For the reader's convenience, references are put into four categories: a) Companies, b) Other Industry and Research Groups, c) Regulatory and Standardisation Bodies and d) Blogs and Internet Forums. Furthermore, brief description of each unit is also provided.

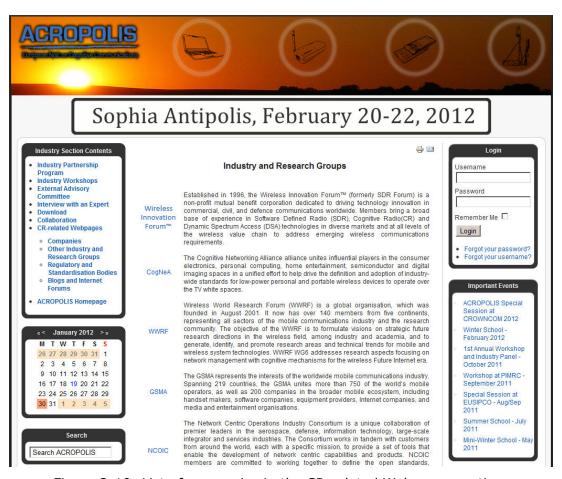


Figure 2-19: List of companies in the CR-related Webpages section.

#### 2.13.8 ACROPOLIS Homepage

The reader can return to the start page of the ACROPOLIS Web Portal by using the ACROPOLIS Homepage link which is placed in the bottom of the Industry Section menu.

#### 2.14 Discussion Forum

A new feature of the ACROPOLIS Web Portal is a Discussion Platform which enables easy and free discussions between ACROPOLIS Partners and with external audience, to exchange ideas, suggestions and remarks related to coexistence technologies such as CR. The Discussion Forum is built on the well-known and widely used "Joomla!" "Kunena" module [3]. At the time of preparation of this Deliverable, the Forum is under testing and imminently to be incorporated into the live version of the ACROPOLIS Web Portal.

Figure 2-20 illustrates the main screen of the Forum for a user who is logged in to the Web Portal.

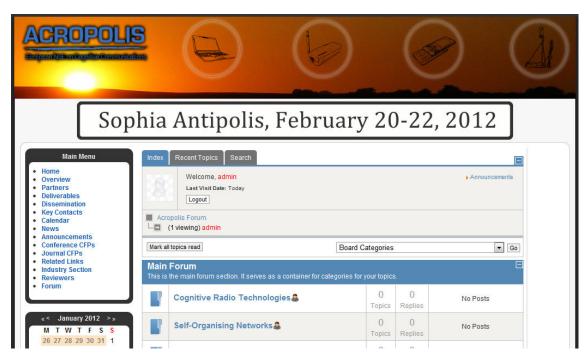


Figure 2-20: Forum main screen.

Currently the forum comprises three sections: "Cognitive Radio Technologies", "Self-Organising Networks", and "Spectrum Sharing and Spectrum Coexistence". Each such category may contain many different topics. Conversation on a particular topic is conducted in a linear way. In order to find relevant information, an advanced search mechanism is provided (see Figure 2-21).

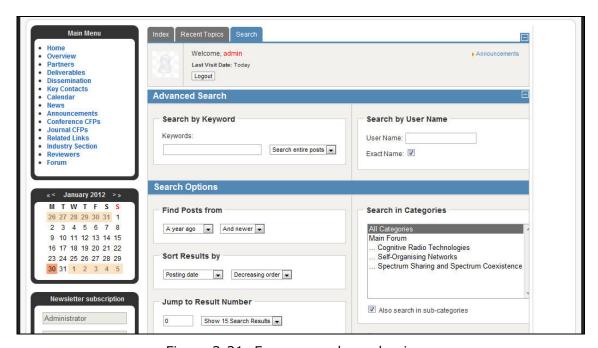


Figure 2-21: Forum search mechanism.

Due to the fact that forum mechanism is very popular in the Internet, the usage of ACROPOLIS Discussion Platform should be easy and intuitive to all Internet users.

## 2.15 E-Newsletter subscription module

New release of ACROPOLIS Web Portal introduces new service – ACROPOLIS e-newsletter subscription which is powered by "AcyMailing" "Joomla!" extension [4] (see Figure 2-22). Each portal user can subscribe to this quarterly document and regularly receives emails with ACROPOLIS news, announcements and Newsletters. Subscribed users and e-newsletters content are managed by ACROPOLIS Web Portal administrators. In order to subscribe to ACROPOLIS e-newsletter, a user should fill out the subscription form which can be found on each portal page just under the calendar. To fulfil the rules of the *Netiquette* every email sent as an ACROPOLIS e-newsletter has an *unsubscribe* link at the end of the message.



Figure 2-22: Newsletter subscription.

#### 2.16 Newsflash

To bring news from the industry – described in detail in section 2.8 – closer to the ACROPOLIS Web Portal, a user Newsflash section was introduced on the ACROPOLIS Website. On every Webpage one randomly chosen news from all news listed in a News section is presented. Each presented news contains title and a small teaser to attract users attention. A complete article is available under the *Read more* link.

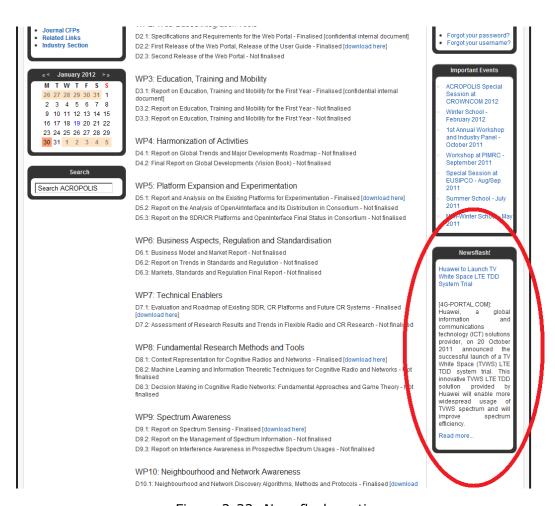


Figure 2-23: Newsflash section.

#### 2.17 Important ACROPOLIS events module

In order to emphasize the most important events related to ACROPOLIS project, a new section – Important ACROPOLIS Events – was created. This section can be found on the right side of every ACROPOLIS Website page just under the login form. Detailed information regarding given event can be found after clicking this event's name.



Figure 2-24: Important Events Section.

#### 3. ACROPOLIS Private Portal

Since Deliverable D2.2 was released in January 2011, no significant changes have been made to ACROPOLIS Private Portal which is still based on Xerox DocuShare system. During the first year of ACROPOLIS, this internal portal was used mainly as a repository system for various kind of Project's reports, documents and references. Although some new subfolders were created to keep data in appropriate order, the general structure of the internal portal's content space was maintained and comprises the following items:

- Administration
- Deliverables
- Miscellaneous
- PM Deliverables
- Reference
- Working\_files

Detailed information regarding the content of folders listed above as well as the other functionalities provided by the DocuShare system (e.g. internal calendar services, internal Wiki and Weblogs) is available in relevant section of Deliverable D2.2.

For the Partners' convenience, an ACROPOLIS Handbook comprising various forms of useful information on the Project structure and its internal, commonly accepted administrative procedures has been created. This document is accessible for logged-in users in the front page of internal portal.

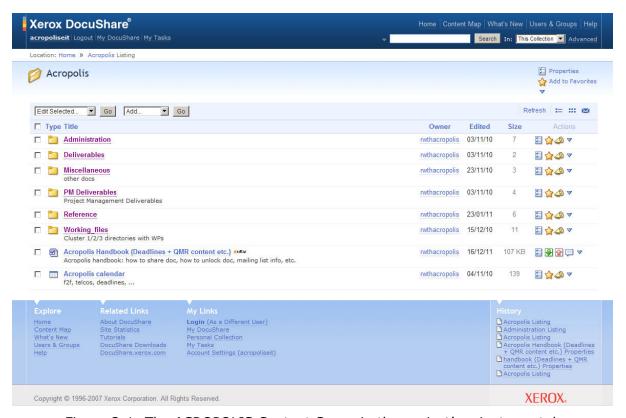


Figure 3-1: The ACROPOLIS Content Space in the project's private portal.

# 4. ACROPOLIS Mailing Lists

Taking a differential from Deliverable 2.2, there are very minor changes to the ACROPOLIS mailing lists to report in Deliverable 2.3. The changes essentially correspond to the population of the Executive Advisory Committee (EAC) mailing list with its members, and the creation of a mailing list for the interested parties in forming ACROPOLIS-related contributions to the IEEE 1900.1a amendment standard. It is intended to continue and enhance the practice of creating tailored mailing lists for particular efforts of the project, comprising the groups of members involved and interested in those efforts.

For internal project purposes, detail on mailing lists is available in the ACROPOLIS handbook, which is available to project partners at the Xerox Docushare internal portal. Partners use this information for reference upon using the mailing lists.

## 4.1 Current Implementation

Here we summarise again information on the implementation of the mailing lists, as was available in Deliverable 2.2.

ACROPOLIS mailing lists are implemented on a secure server utilising the Lyris ListManager software [5]. Lyris ListManager incorporates extensive functionalities to customise the operation of mailing lists. These functionalities include the ability to automatically specialise fields in sent emails, the ability to monitor emails and authorise emails on a case-by-case basis, the ability to specialise email forwarding rules on a per-mailing list and per-member basis, the ability to penalise users and implement extra rules for some users if necessary, among many others. A screenshot of a web-based administration page of Lyris ListManager, as is being employed in ACROPOLIS, is given in Figure 4-1.

#### acropolis

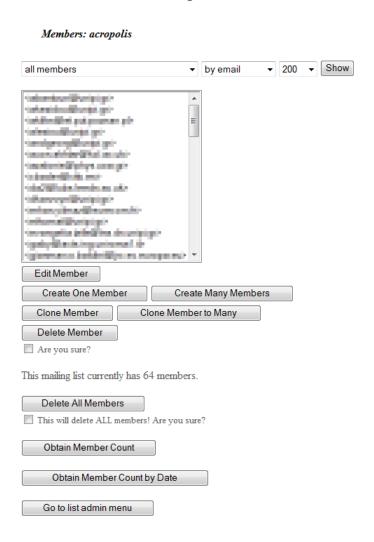


Figure 4-1: The administration interface for the Lyris ListManager software, as currently being used for ACROPOLIS mailing list management.

It might be noted that many web server portals include mass-mailing capability for members that are registered with the portal. Mailing lists might be achieved through such means as an alternative mechanism or as a supplementary capability. The ACROPOLIS Web Portal, using the "Joomla!" CMS software, incorporates such functionality.

The following mailing lists are implemented in ACROPOLIS. This set of mailing lists is under ongoing review and may be updated in the future:-

- ACROPOLIS all members (acropolis@www.ctr.kcl.ac.uk):
  - Includes every single person involved in the project, from every partner. This
    is the means for informing absolutely everyone in the project through a single
    contact point.
- ACROPOLIS Executive Committee (acropolis-exec@www.ctr.kcl.ac.uk):
  - Includes all members of the ACROPOLIS Executive Committee, including the secretary to the Executive Committee.
- ACROPOLIS Cluster 1 mailing list (<u>acropolis-cluster1@www.ctr.kcl.ac.uk</u>):

Includes all members from all partners involved in Cluster 1, comprising WPs
 7 and 8 as defined in the ACROPOLIS kick-off meeting.

Date: 31/01/2012

- ACROPOLIS Cluster 2 mailing list (<u>acropolis-cluster2@www.ctr.kcl.ac.uk</u>):
  - Includes all members from all partners involved in Cluster 2, comprising WPs
     9, 10 and 11 as defined in the ACROPOLIS kick-off meeting.
- ACROPOLIS Cluster 3 mailing list (<u>acropolis-cluster3@www.ctr.kcl.ac.uk</u>):
  - Includes all members from all partners involved in Cluster 3, comprising WPs
     12, 13 and 14 as defined in the ACROPOLIS kick-off meeting.
- ACROPOLIS Integration mailing list (<u>acropolis-integration@www.ctr.kcl.ac.uk</u>):
  - Covers issues related to the Integrations WPs.
- ACROPOLIS Spreading of Excellence mailing list (<u>acropolis-soe@www.ctr.kcl.ac.uk</u>):
  - o Covers issues related to the Spreading of Excellence WPs.
- ACROPOLIS business/standardisation mailing list (<u>acropolis-business-standards@www.ctr.kcl.ac.uk</u>):
  - Covers issues in the important facets of business issues/models and standardisation related to ACROPOLIS technologies, including all partners involved in WP6.
- ACROPOLIS Executive Advisory Committee (EAC) mailing list (<u>acropolis-advisory@www.ctr.kcl.ac.uk</u>):
  - Includes all members of the EAC.
- IEEE 1900.1a mailing list (acropolis-19001a@www.ctr.kcl.ac.uk new!):
  - o Includes all members of ACROPOLIS interested in participating in the formation of ACROPOLIS-related contributions to IEEE 1900.1a.

As regards the utilisation of these mailing lists, research communications and document preparation/delivery are communicated on a Cluster-wide basis, using the relevant Cluster mailing list for the WP in question. This approach facilitates a wide awareness of research that is ongoing within the Cluster, therefore minimising overlap and providing inspiration for further research related to the Cluster in question. As regards the Integration and Spreading of Excellence mailing lists, through which Integration and Spreading of Excellence activities are coordinated, due to the wide-ranging natures of these aspects every person involved in the project (with the exception of project partners' administrative staff) is included in these lists. This involvement might be somewhat refined at a later stage.

# 5. Upcoming Features of the Web Portal

A number of features for the ACROPOLIS Web Portal have been implemented for testing and consideration in various scenarios, and are in the process of being included at appropriate time and locations within the Web Portal. This section summarises some of these.

## **5.1** Download Manager

Download manager functionality is already implemented on the portal using the JDownloads module [6], and is being used for some tasks. The use of the download manager for the portal is intended to be increased. Such a manager can be accessed through the front-end as well as back-end configuration, allowing partners to upload content and share it (not only between themselves, but also with people who are not members of ACROPOLIS), and incorporates a range of associated features. This download manager is similar in capability to what is possible with the Xerox Docushare internal portal, although is more widely available to the outside world, more configurable, and integrated within the project's portal.

## 5.2 Geomapping/Geotagging

Geomapping/geotagging capability serves a number of purposes. It allows the linking of content to visual maps, enabling possibilities such as the display of news/updates/achievements at the relevant locations at which they occurred, and capabilities such as radio environment or system deployment mapping. Investigation and testing has concluded that various tools, in combination, can be deployed to achieve such capabilities; one example tool that has been tested and is freely available is "Articles Geotag" [7].

Figure 5-1 depicts a visual map illustrating how geomapped content might look using "Articles Geotag". Note that the map and the integration of its embedded content is fully interactive.



Figure 5-1: Example of geomapped content using "Articles Geotag" (source [7]).

#### 5.3 Enhanced News Scroller

Enhanced news scrolling capability is being considered for the portal, incorporating a more slick visual look. Such capability has been studied/tested and can be achieved using the Xpert Scroller module [8], among others.

#### 5.4 Opinion Polling

Opinion polling capability is very useful, for example, to poll on the way forward regarding a particular technology (e.g., "Option A tick here", "Option B tick here", etc.). This is an attractive interactive component for the portal. Such a capability has been investigated/tested and can be easily achieved using the "JVoteSystem" add-on component [9].

Figure 5-2 depicts an example implementation of one of the many polling formats that are possible using JVoteSystem. In the example shown, various options are available and the user can vote for them by clicking on the associated "Vote" icon—voting can be done repeatedly until the allowed number of votes is expired. Figure 5-3 depicts a pie chart of current results, which is shown to the end user once he/she has finished voting. This is interactive in the sense that the user can hover the mouse pointer over the various segments of the chart to view more detailed statistics.

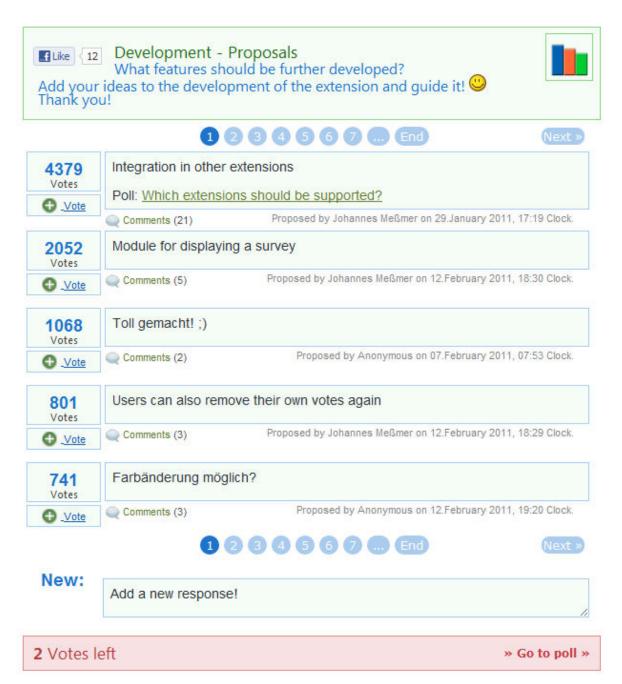


Figure 5-2: Example implementation using the "JVoteSystem" add-on component (source [9]).

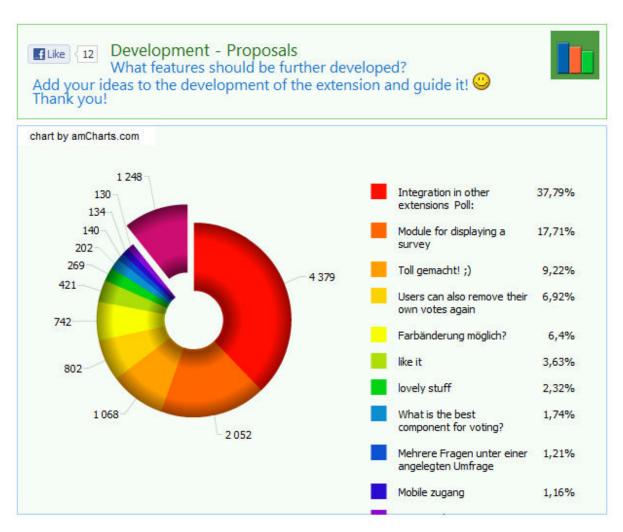


Figure 5-3: "JVoteSystem" results pie-chart (source [9]).

#### 5.5 Surveying Tools

Surveying tools are in some regards closely related to the above mentioned opinion polling, although are slightly different in aspects such as the type and detail of content. Such a capability has been investigated and tested and can be easily achieved using the "JQuarks" add-on component [10], among others. Such a tool may be required at appropriate points in the project, and is dormant within the repertoire available to the Web Portal should it be required.

#### 6. User Guide

#### 6.1 Website Navigation

The ACROPOLIS website is accessible at the link: <a href="www.ict-acropolis.eu">www.ict-acropolis.eu</a>. As is standard for such a website, typing this domain name takes the end-user to the "home page".

Upon entering the ACROPOLIS website, navigation is achieved using the "main menu" on the left of the site. The links given in this menu access all of the ACROPOLIS web pages. Endusers may also directly access the ACROPOLIS calendar through the miniaturised representation of the calendar underneath the main menu, and may search the ACROPOLIS Web Portal for any text appearing in the Web Portal using the "search" dialogue under that. From the time Deliverable 2.2 has been created additional modules — "Important ACROPOLIS events" and "Newsflash" were created allowing users for direct accessing relevant content of the website.

End-users may log into the front-end of the ACROPOLIS Web Portal using the dialogue on the right of all pages. End-users may also create accounts or request username and password reminders using this dialogue.

#### 6.2 Creating an Account

Creating an account on the ACROPOLIS Web Portal is intuitive. On the right side column there is a link "Create an account" which redirects user to the sign-up form. After all five fields of this form are properly filled out, the Register button can be pressed. After a user submits the registration form, the ACROPOLIS Web Portal sends a message with a confirmation link, login and password to the email set in the sign-up form. The account is not active until the user clicks on the confirmation link. The range of particular account's functionalities is managed by the portal administrator.

#### 6.3 Publishing Content

Content can be published on the ACROPOLIS Web Portal by front-end users with "Author" permissions and above, and back-end users with "Manager" permissions and above.

Content to be published in the ACROPOLIS Web Portal, and in "Joomla!" in general, is formed of "Articles". Given sufficient permissions ("Editor" or above as a front-end user, or "Manager" or above as a back-end user), articles might be edited directly from the front-end access to the ACROPOLIS Web Portal. However, documents must be published using back-end access to the portal, through logging in with appropriate credentials at <a href="https://www.ict-acropolis.eu/administrator">www.ict-acropolis.eu/administrator</a>. Articles preferably should have a "Section" and "Category" specified when they are created.

The "Article Manager" can be accessed through the back-end of the ACROPOLIS Web Portal by clicking on "Content"→"Article Manager". A new article can be created from here by clicking on the "New" icon in the top-right of the page; articles can also be edited from here. The "title" field in a new article should be specified, an entry in the "Section" and "Category" drop-down boxes should be selected, and some text should be entered for the article content, as a bare minimum in order to be able to save the article. The content of the article is created/edited using the "What-You-See-Is-What-You-Get (WYSIWYG)" editor on

the "Article: [Edit]" page, but the content can also optionally be created/edited in HTML directly by clicking on the "Toggle editor" button at the bottom of the page. After the time Deliverable 2.2 has been written, more advanced back-end content editing capability was implemented and is being increasingly used, facilitating the task for the user and minimising the need to edit HTML code. This is implemented using the "Joomla! Content Editor (JCE)" add-on [11] and in the Figure 6-1 editing functionalities offered by this extension are shown.

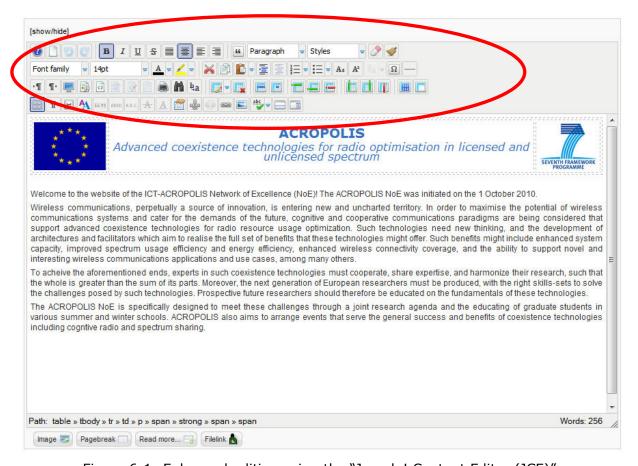


Figure 6-1: Enhanced editing using the "Joomla! Content Editor (JCE)".

Also selectable on the "Article: [Edit]" page is whether the article appears on the Front Page of the website/portal or not, and whether the status of the article is "Published" or not. An article must be marked as Published in order for it to be visible on the ACROPOLIS website/portal. On the right side of the "Article: [Edit]" page various important aspects of the article can be specified, including meta-data and advanced parameters.

It is noted that once an initial version of the article is created, various aspects of the article (e.g., permissions level for access, whether the article is on the Front Page, whether it is published or not) can be directly changed through clickable icons on the "Article Manager" page. The details of the process for creating and editing articles can be find in the User Guide section of Deliverable 2.2.

#### 6.4 Publishing event banner

As it was mentioned in section 2 of this deliverable, in the second release of ACROPOLIS Web Portal, among other updates, a new feature – event banner – was launched. In

"Joomla!" system all back-end users with "Manager" permissions and above are allowed to publish and unpublish event banners. To this end, after logging in at <a href="https://www.ict-acropolis.eu/administrator">www.ict-acropolis.eu/administrator</a> user can access the appropriate panel with banners properties ("Components"  $\rightarrow$  "Banner"  $\rightarrow$  "Banners") as it is shown in Figure 6-2.



Figure 6-2: Accessing the Banner Manager.

Then, list of all updated banners will appear as it can be seen in Figure 6-3.

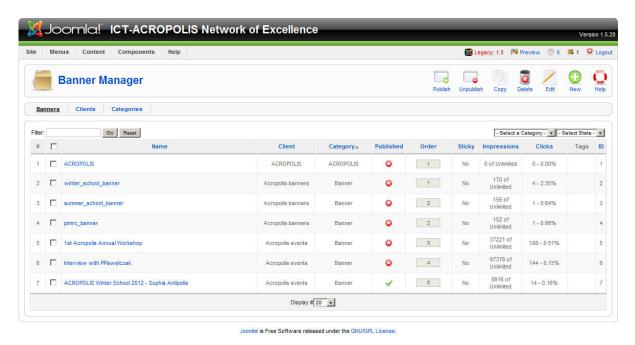


Figure 6-3: ACROPOLIS Banner Manager.

This panel, apart from providing the basic statistics allows the user to easily publish/unpublish each of the listed banners. If more than one banner will be published, they will appear on the ACROPOLIS Website alternating. After clicking on the particular banner's name the page with corresponding properties is accessed as shown in Figure 6-4.

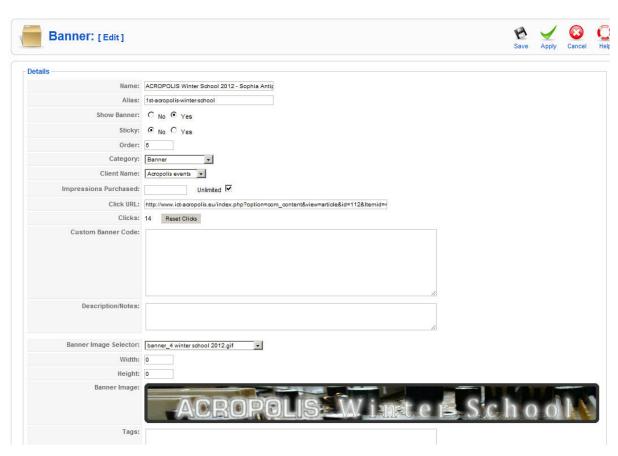


Figure 6-4: ACROPOLIS banner properties.

It is important to choose "Banner" category and "ACROPOLIS events" client name as for this configuration event banner will appear in appropriate area of ACROPOLIS Website. If in "Click URL" field any website address is provided, front-end users will be redirected to this webpage after clicking on the banner. Finally, from the "Banner Image Selector" slide menu user can choose the banner which should appear on the ACROPOLIS Website. For the user convenience, in "Banner Image" area preview of selected banner will be shown.

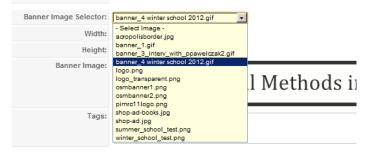


Figure 6-5: Slide menu with the list of available event banners.

In order to upload new banner to the system, user should move to the relevant folder in the "Joomla!" Media Manager as it was shown in Figure 6-6. Each graphic file (both static and animated) uploaded to this section will be listed in the aforementioned "Banner Image Selector" slide menu. However, in order to keep appropriate consistency of ACROPOLIS Website layout it is required that uploaded banners will be 70 pixels of height, while 800 pixels of width is recommended.

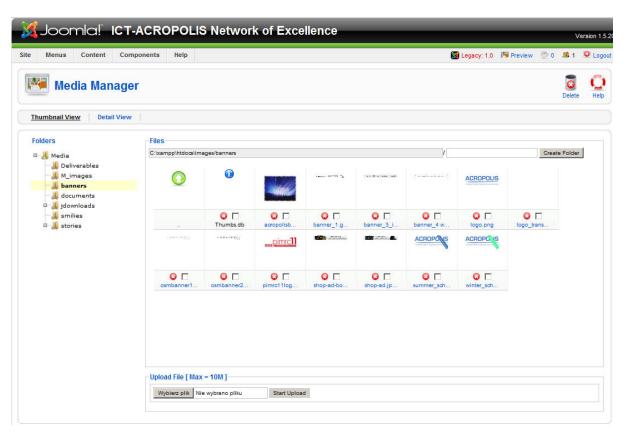


Figure 6-6: Banners category of the "Joomla!" Media Manager.

# 6.5 Download Manager

Since the Download Manager is a complex "Joomla!" plug-in, this section contains only basic information regarding the setup and simple use cases of it.

As initial configuration, download categories and user groups have to be created. This can be done in the *JDownload Control Panel* (Portal back-end-> Components -> JDownload).

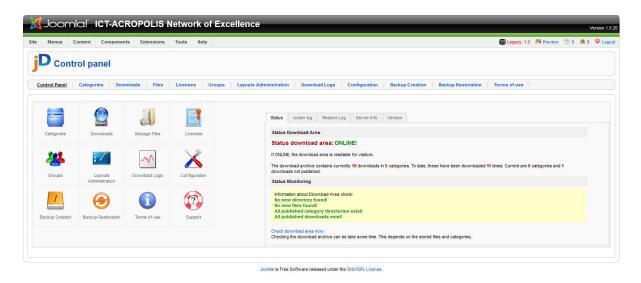


Figure 6-7: JDownloads control panel.

User groups can be defined from the Groups section.

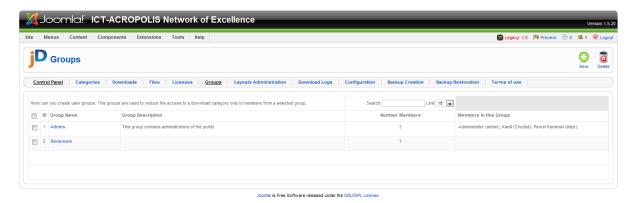


Figure 6-8: JDownloads Group section.

While categories are configured in the *Categories* section.

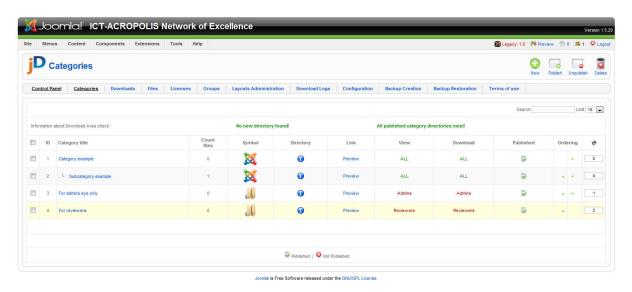


Figure 6-9: JDownloads Categories section.

Please notice that for each categories set, access permission levels can be configured. After this action, the *Groups* and *Categories* system is ready for uploading a file. This can be done in the *Manage Files* section of *JDownloads Control Panel* by clicking the "*Upload Files*" arrow in the upper right-hand corner.

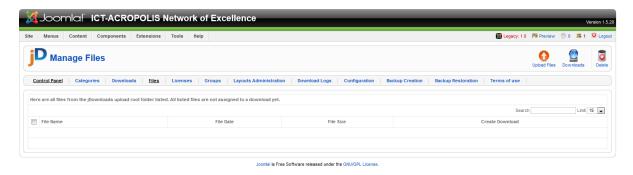


Figure 6-10: JDownloads Manage Files section.

After a file is uploaded, it has to be transformed into *Download mode*. It can be done also from the *Manage Files* section. After this step, the file should be available in *Downloads* section.

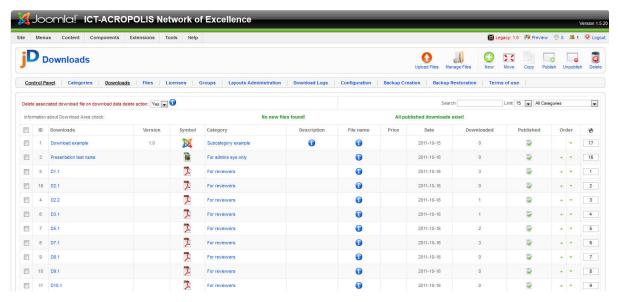


Figure 6-11: JDownloads Downloads section.

After the file is uploaded and transformed into a download it can be published on the ACROPOLIS Web Portal. There are many ways of publishing a file on the Portal. One of the simplest is by adding a download link to the portal article. In such scenario, a following formula {jd\_file file==ID#} should be added into Article content (where ID# is a download id which can be found from Download section).

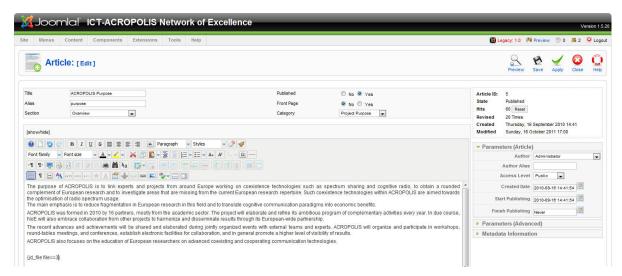


Figure 6-12: Adding download link to the article.

The portal user will see download link to the file only if he belongs to the user group which is allowed to access the corresponding file.

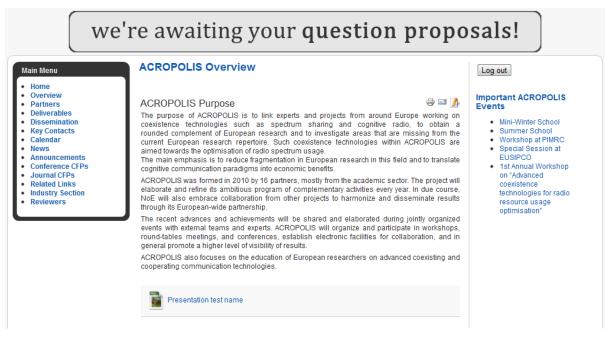


Figure 6-13: Article with a download link.

If end-user steals a link to the content to which he does not have an access, following screen will be presented.

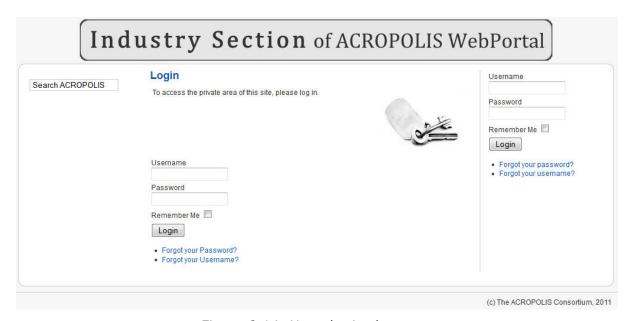


Figure 6-14: Unauthorized access.

#### 7. Conclusions

As has already emphasised in Deliverable D2.2, the ACROPOLIS Web Portal is a key interface connecting the project with the outside world, and strengthening established collaboration within the Network of Excellence. The aim of the partners involved in launching and maintenance of this portal has been to create a common and multifunctional platform acting as a means of information distribution on the project and wider events, and enabling interfacing between project members and those outside. A significant effort has been invested in appropriate development of the ACROPOLIS Web Portal to achieve these goals.

The ACROPOLIS Web Portal is gradually building up more and more material and capabilities, facilitating increasing scientific activities performed by partners in the project. Such capabilities are achieved under the "Joomla!" content management system upon which the portal is built, and the various add-ons that are available to it. Moreover, for internal project document sharing purposes the deployed Xerox DocuShare has excellently met requirements.

In order to streamline the process of daily message exchange between relatively large numbers of partners constituting the Network of Excellence, new mailing lists for dedicated purposes have begun to be established, while the former mailing lists have been appropriately modified. Moreover, significant changes have been made to the website, which is the main project interface with the external audience. The clear, detailed layout and structure, striking graphics and content of the ACROPOLIS website make it a notable, broad source for the project and community working on related technologies.

# 8. Glossary and Definitions

Acronym	Meaning
CFP	Call for Papers
CMS	Content Management System
CR	Cognitive Radio
DSA	Dynamic Spectrum Access
EAC	External Advisory Committee
IPP	Industry Partnership Programme
NoE	Network of Excellence
WP	Work Package

## 9. References

- [1] ICT-ACROPOLIS Deliverable D2.2, "First Release of the Web Portal, Release of the User Guide," January 2011
- [2] The "Joomla!" content management system, <a href="http://www.joomla.org">http://www.joomla.org</a>, accessed January 2012
- [3] "Joomla!" Kunena extension, <a href="http://www.kunena.org">http://www.kunena.org</a>, accessed January 2012
- [4] "Joomla!" AcyMailing extension, <a href="http://www.acyba.com">http://www.acyba.com</a>, accessed January 2012
- [5] Lyris "ListManager" Software, <a href="http://www.lyris.com">http://www.lyris.com</a>, accessed January 2012
- [6] "Joomla!" jDownloads extension, <a href="http://www.jdownloads.com">http://www.jdownloads.com</a>, accessed January 2012
- [7] "Joomla!" Articles Geotag extension, <a href="http://www.seipernove.it/en/joomla-extensions/9-joomla-articoli-con-geotag">http://www.seipernove.it/en/joomla-extensions/9-joomla-articoli-con-geotag</a>, accessed January 2012
- [8] "Joomla!" Xspert Scroller extension, <a href="http://www.themexpert.com/joomla/extensions/xpert-scroller">http://www.themexpert.com/joomla/extensions/xpert-scroller</a>, accessed January 2012
- [9] "Joomla!" JVoteSystem extension, <a href="http://joomess.de/projekte/18-jvotesystem">http://joomess.de/projekte/18-jvotesystem</a>, accessed January 2012
- [10] "Joomla!" JQuarks extension, <a href="http://www.jquarks.org">http://www.jquarks.org</a>, accessed January 2012
- [11] "Joomla!" Joomla Content Editor (JCE) extension, <a href="http://www.joomlacontenteditor.net">http://www.joomlacontenteditor.net</a>, accessed January 2012