

PROJECT FINAL REPORT

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Name of the scientific representative of the project's co-ordinator:

John Davies, BT

Tel: +44 (1473) 609583

Fax: +44 (1473) 609832

e-mail: john.nj.davies@bt.com

Project website: <http://active-project.eu>

History

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1.0	20/04/11	First draft
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1 Final publishable summary report



<http://www.active-project.eu>

1.1 Executive summary

The ACTIVE project has as its goal making knowledge work more efficient and effective, by:

- Reducing information overload, which makes it difficult for users of information systems to easily find the information they need.
- Mitigating the effect of constant task switching, which forces users to constantly reprioritize their information needs.
- Encourage reuse of information, including process information.

ACTIVE has done this by drawing on three interrelated technology themes:

- The exploitation of a user's task context. This includes the use of machine learning to automatically understand that task context.
- The synergy of Web 2.0 and formal semantics, to obtain the ease of use of the former and the power of the latter.
- Describing and sharing informal processes. This also includes the use of machine learning to understand user processes.

ACTIVE applications are built around two interoperating platforms. The ACTIVE Knowledge Workspace (AKWS) has been developed within ACTIVE; whilst the Semantic MediaWiki (SMW) has been deployed and enhanced within the project. The AKWS is available for research purposes. The SMW enhancements are open source. The project has also developed a Microsoft add-in, Contextify to help manage email overload. Contextify is available for informational, personal, non-commercial purposes. The project has also developed models to assess the costs and benefits of ontology and folksonomy-based systems, and a tool-suite to facilitate the use of some of these models. More information on the software and methodologies developed in ACTIVE is available in the ACTIVE portfolio brochure, available on the ACTIVE website.

The work of ACTIVE has been validated in three case studies in distinct sectors:

Telecommunications ACTIVE technology has been used with BT's technical and sales specialists. A particular emphasis has been on the rapid creation of high quality customer proposals.

Consultancy ACTIVE technology has been used to make it easier for Accenture people to find information – everything from a corporate policy to an organisational chart.

Engineering ACTIVE technology has been developed to guide Cadence electronics designers through the complex process of designing and integrated circuit.

ACTIVE has undertaken a comprehensive programme of dissemination, including academic papers, papers aimed at IT specialists and decision makers, summer schools, videos, newsletters and press releases.

1.2 Summary description of project context and objectives

1.2.1 Context

The overall motivation for the project was to help knowledge workers in organisations, particularly but not only large organisations. The project began with certain intuitions about the problems such people face. In particular: they are overloaded with information; they are constantly switching from one task to another, which creates an overhead; and they are forced to reinvent information because the mechanisms for sharing do not work well in large organisations. Here, information was assumed to include information about informal processes needed to achieve work goals; the kind of information which is normally shared by word of mouth. These intuitions were confirmed in the project case studies, which also were used to validate the tools and technologies developed to help mitigate the effect of these problems.

1.2.2 Project objectives

The ACTIVE project has as its goal making knowledge work more efficient and effective, by:

- Reducing information overload, which makes it difficult for users of information systems to easily find the information they need.
- Mitigating the effect of constant task switching, which forces users to constantly reprioritize their information needs.
- Encourage reuse of information, including process information.

ACTIVE has done this by drawing on three interrelated technology themes.

Firstly, we use an understanding of the user's task context to prioritise information. This helps reduce the effect of information overload by focusing the user's attention on the information he needs for his current task. It also mitigates the effect of constant task switching, since as the user switches from one task to another, information available to him or her is re-prioritised. The use of task context also encourages the sharing of information; a context can be shared, and with it the information associated with that context. Understanding the user's task context is achieved through a combination of exploiting explicit information from the user and the use of machine learning to make inferences from the user's behaviour.

Secondly, the synergy of Web2.0 and formal semantic approaches is used to encourage the better sharing of knowledge. ACTIVE technology combines the ease of use of Web2.0 technology with some of the power of formal semantics. This is illustrated in ACTIVE's use of the Semantic MediaWiki (SMW). It is also apparent in user-supported tagging, where users are free to create tags for information objects, but can also make use of suggested tags.

Thirdly, ACTIVE has developed technology to encourage the sharing of process information. By this we mean in particular the informal processes which we all use to achieve our everyday professional tasks. ACTIVE has developed tools to enable the easy description and sharing of processes; and has used machine learning techniques to detect recurring user processes and to recommend information to users based on the process currently being carried out.

1.2.3 Summary of achievements

The ACTIVE platforms – the AKWS and SMW

ACTIVE makes use of two platforms; the ACTIVE Knowledge Workspace (AKWS), which has been designed within the ACTIVE project, and the Semantic MediaWiki (SMW) which was developed prior to ACTIVE and has been extended in the project.

The AKWS is the modular platform which provides the framework for: the management and exploitation of context; for user tagging; and for the creation and sharing of process descriptions. The AKWS provides a taskbar, shown in figure 1, which enables the user to manage context and initiate a variety of ACTIVE functions. For example, the task pane and task wizard enable the user to create process descriptions; whilst the context visualiser enables the user to view the information, processes and people associated with a particular context.

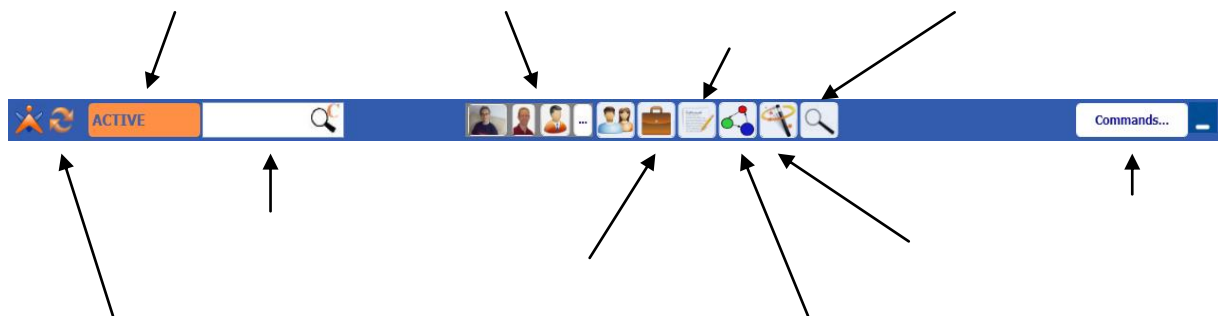


Figure 1 ACTIVE taskbar
– illustrating some of the functionality accessible via the taskbar

In addition, desktop applications such as Microsoft Word, Excel, PowerPoint, FileExplorer and Outlook can be integrated into the AKWS. This means that within those applications information can be filtered according to the current context. Figure 2 illustrates this for Microsoft Word.

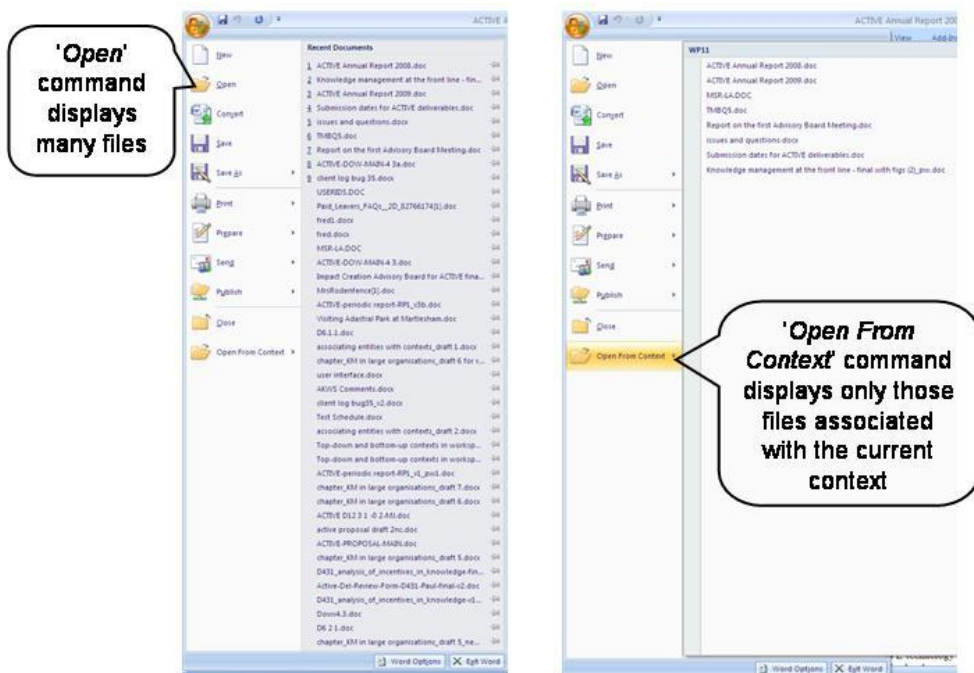


Figure 2 Opening a file without (left) and with (right) filtering by context

The SMW is an extension of MediaWiki, the software used by Wikipedia. In the SMW the links between pages have associated, informal semantics. The Semantic MediaWiki is already widely used. In ACTIVE its functionality has been extended by, e.g., the development of a lightweight ontology editor, shown in figure 3; a lightweight but powerful query facility, *AskQ*; and the capability to export to RSS, iCalendar and vCard.

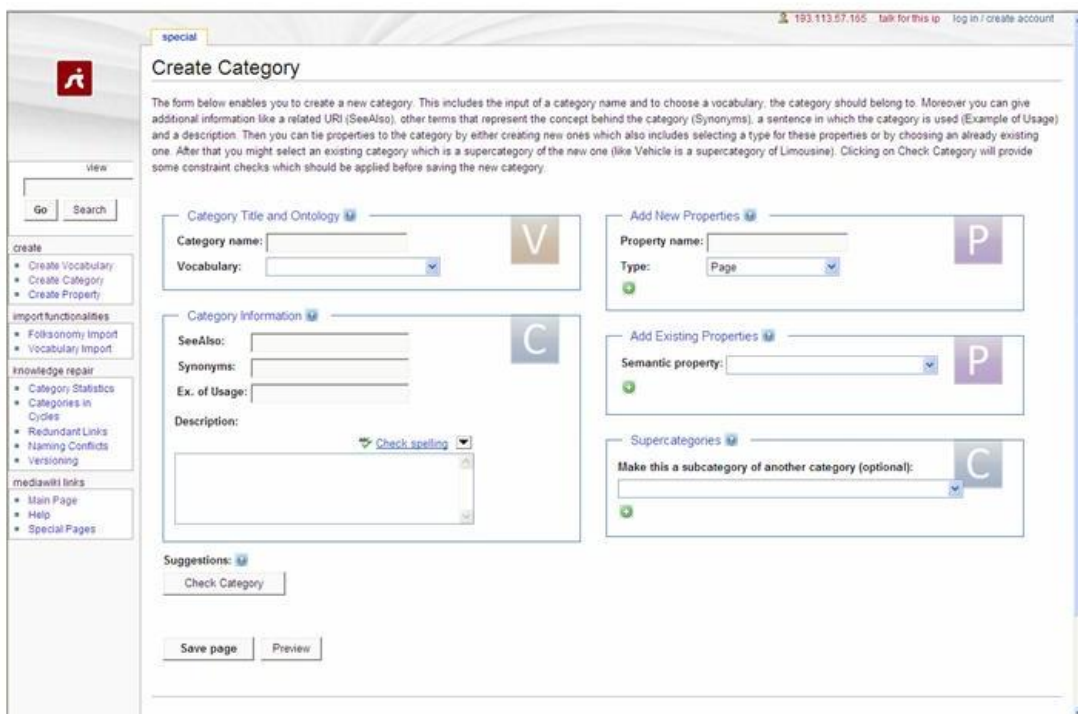


Figure 3 A lightweight ontology editor for the SMW

The ACTIVE case studies

The ACTIVE case studies serve to validate and exploit the technology, and also as vehicles to demonstrate its benefits. They are in three distinct sectors:

Telecommunications ACTIVE technology has helped BT's technical and sales specialists to share and reuse their expertise, and to locate the skills they need to respond rapidly to customer needs. A particular emphasis is on the rapid creation of high-quality customer proposals.

Consultancy Accenture consultants also need to share knowledge rapidly and effectively, for example in order to create customer proposals. There is the added challenge that Accenture's consultants are distributed across the globe. In addition, ACTIVE technology is being used to make it easier for Accenture people to find information – everything from a corporate policy to an organisational chart.

Engineering ACTIVE technology is being used to guide Cadence electronics designers through the complex process of designing an integrated circuit. The aim is to make knowledge about design processes explicit and shareable. That way the knowledge acquired by experienced designers can be shared with the less experienced.

ACTIVE methodology

ACTIVE has developed models to assess the costs and benefits of ontology and folksonomy-based systems, and a tool-suite to facilitate the use of some of these models. ACTIVE has also developed methods for validating the usability of information systems, and for measuring the business impact of knowledge management tools.

1.3 Main S&T results and foreground

1.3.1 Overview

ACTIVE technologies help overcome information overload, mitigate the effects of the continual disruption, and support the sharing of knowledge, including process knowledge. These technologies are based on task context to prioritise the delivery of information, informal processes, and lightweight semantic technologies.

The ACTIVE technologies are grouped around two platforms, the ACTIVE Knowledge Workspace (AKWS), and the Semantic MediaWiki (SMW). The AKWS consists of modular components, and you can choose which components to integrate into an existing knowledge management system. The SMW was initially developed outside of ACTIVE and has been extended in the project. It is itself an extension of the MediaWiki used in Wikipedia.

The terms of availability of the ACTIVE technologies vary. Any statements in this report are purely indicative and have no contractual status.

1.3.2 The ACTIVE Knowledge Workspace (AKWS)

A version of the AKWS is available free for research purposes on the ACTIVE website (www.active-project.eu). For more information, including licensing terms for commercial use, contact Igor Dolinsek (igor.dolinsek@comtrade.com).

AKWS overview

The AKWS supports:

- The use of task context to manage information
- The creation and sharing of informal processes
- User tagging, intelligently supported and enhanced by ACTIVE's intelligent software

These three sets of features are described in more detail below. These work alongside the user's existing software tools, rather than replacing them. In particular, they interoperate with and enhance Microsoft applications, such as Word, Excel, PowerPoint, and Outlook as explained below. Currently the AKWS interoperates with the 2007 edition of these applications.

The AKWS uses a service-oriented architecture. In general, the user interface features are available in the desktop and through a browser whilst the machine-learning software resides in a corporate server, or can be running in a cloud.

The user interacts with the AKWS primarily through a taskbar displayed on his PC. In addition, he has access via a browser to the AKWS portal on a server, where he, or possibly an administrator on his behalf, can perform more infrequently used housekeeping functions.

There is also an AKWS Software Development Kit (SDK) for developers who wish to extend the functionality of the AKWS.

The use of task context

The user is able to create contexts to describe the various aspects of his work. For example, a customer-facing user might wish to create a number of contexts corresponding to his or her various customers. The user can also associate information objects, e.g. documents or spreadsheets, with particular contexts, or this can be done automatically based on user behaviour.

This enables the user's applications to prioritise information delivery according to the user's context. So that, when opening a file in Word, Excel or PowerPoint, the user can be presented with a choice from just those files relevant to the current context. In email the user can see just those emails relevant to his context. Thus context provides a powerful filter to provide the user with just the information that is relevant at that particular point in time.

In addition, contexts can be organised hierarchically. So that, for example, you can have a context project X and then a sub-contexts finance and development. Information objects specifically related to the financial aspects of project X could then be associated with the project X / finance context, whereas more general items relating to the project could be assigned to project X and development-related items to project X / development.

This top-down approach is enhanced by a bottom-up approach using powerful machine intelligence technology which is able to discover the user's contexts, as well as detect when the user's context has changed.

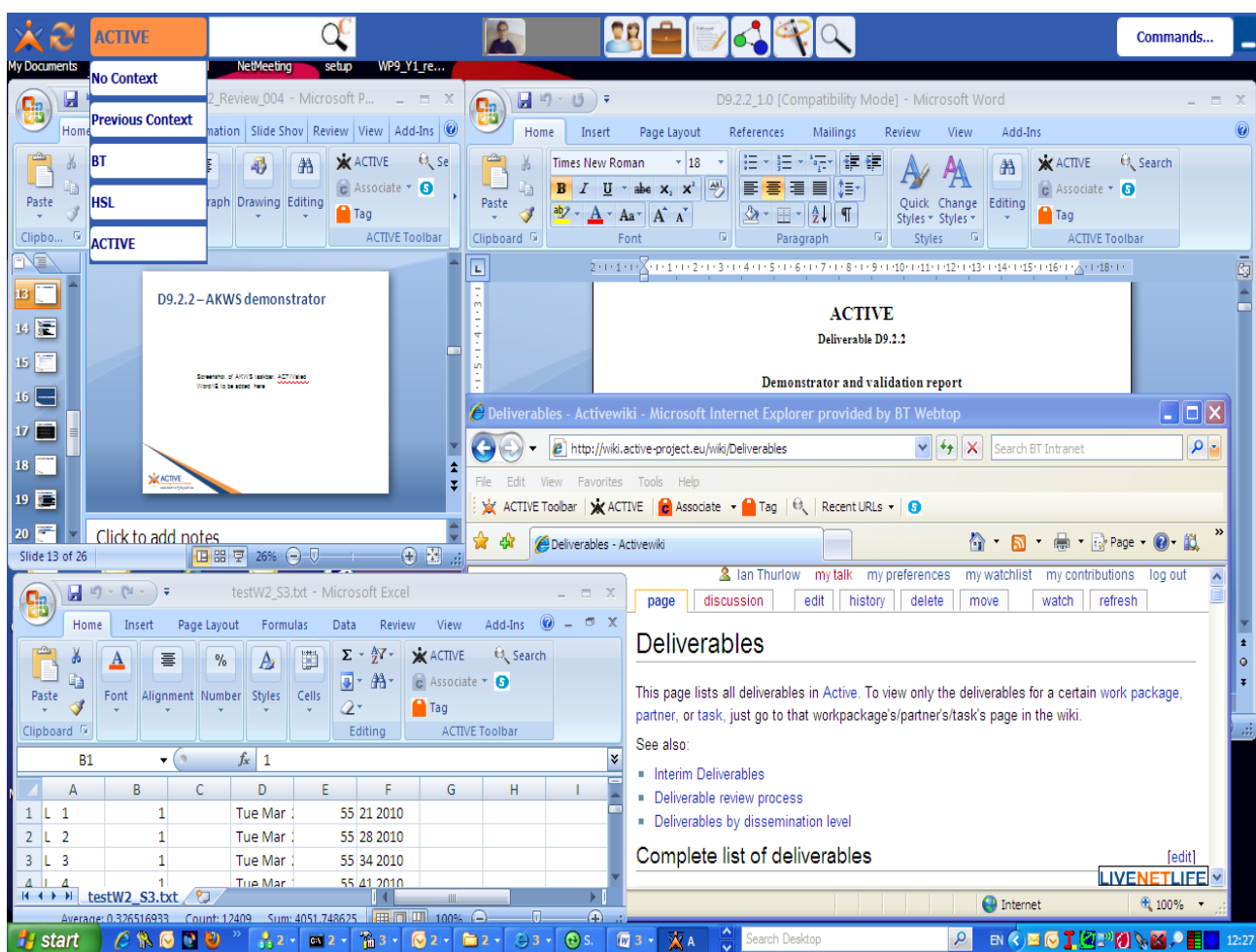


Fig 4: Information in context – ACTIVE Knowledge Workspace

Informal processes

From the taskbar, the user can invoke either a task pane or task wizard to enable him to create informal processes. Each process can contain tasks and sub-tasks. Moreover, resources such as documents and spreadsheets can be associated with these tasks and sub-tasks. Once created, these processes can be shared and improved upon, thereby creating a repository of valuable process knowledge.

Rather than the user creating processes with the task pane or task wizard, he or she can also record processes as they are being carried out. This may be an easier way for some people to document their particular ways of getting things done, so that they can be shared with others.

Whether created explicitly or recorded, processes can be exported to the SMW, where they can be viewed and edited graphically.

User tagging

The AKWS provides users with the facility to tag objects such as documents, spreadsheets and emails; these tags can then be used to assist information retrieval. Sometimes people find it difficult to choose appropriate tags, and in any case people use different tags to represent the same thing. To help overcome these problems, the AKWS can suggest tags to the user. Some of these suggestions will be taken from the text in the, e.g., document. However, some of the suggestions may not occur at all in the text but have been assigned to similar items, perhaps by other users. Of course, the user is free to accept or reject the suggestions.

1.3.3 The AKWS architecture

The AKWS comprises a number of components which interoperate using a service-oriented architecture, as shown in the figure below.

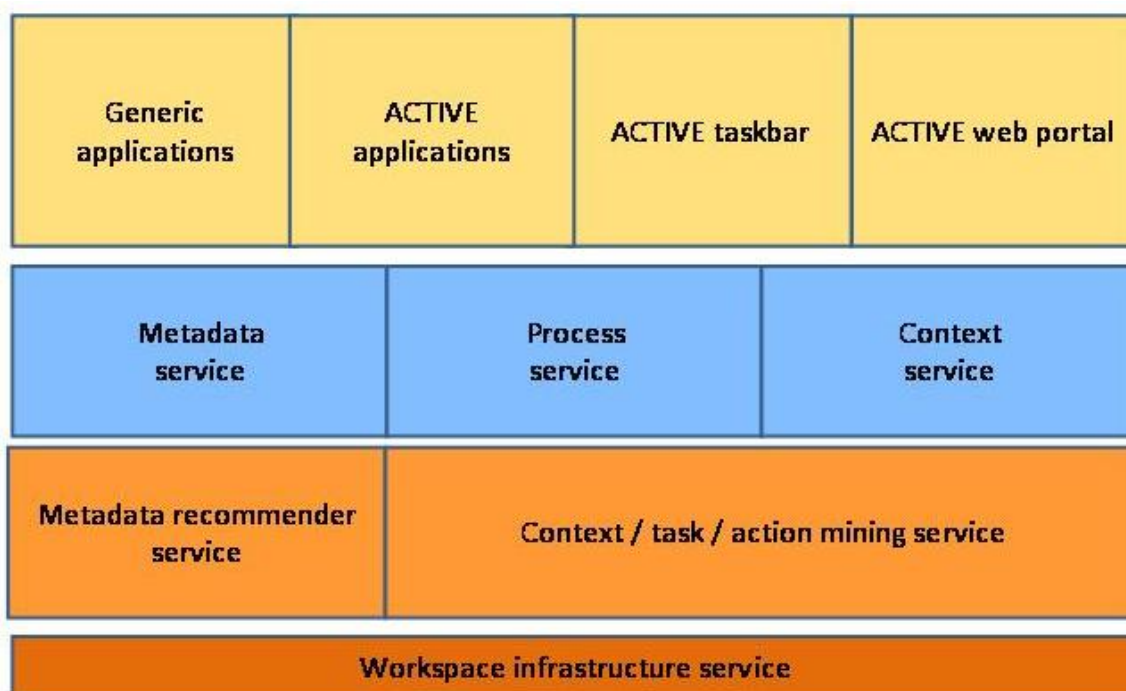


Fig 5: Overview of AKWS architecture

At the lowest layer is the AKWS infrastructure service, which enables certain administrative actions.

At the second layer of this architecture are the services which create structured information from data and user behaviour. The metadata recommender service generates the tag recommendations which are presented to users. The context / task / action mining service supports both the identification of contexts and of processes. Tasks are the components of user processes, whilst actions are indivisible tasks. These functions are all shown in one box because both context and process identification is achieved through the mining of the TNT (time, network, text) database.

At the third layer there are services which interact directly with user applications:

- the metadata service manages metadata to enable their exploitation within applications in a consistent way;

- the process service enables the creation, editing and utilisation of informal processes;
- the context service supports the delivery of information according to the user’s current task context; e.g. by prioritising information appropriately;

At the top layer are the software modules with which the user interacts:

- The “**Generic applications**” are those such as word-processing, spreadsheets and mail which all users utilise. Within ACTIVE these are the standard Microsoft desktop applications.
- “**ACTIVE applications**” are those applications developed within the ACTIVE project, e.g. an enhanced semantic Wiki with which the AKWS interoperates.
- The “**ACTIVE taskbar**” enables the end-user to perform actions such as change context.
- The ACTIVE web portal provides more extensive functionality than is possible via the taskbar, including administrative functions.

Note that the first layer (the ‘infrastructure’ layer), the second layer (the ‘mining’ layer) and the third layer (the ‘service’ layer) are implemented on the ACTIVE server within each case study or ACTIVE implementation. At the fourth and top layer (the ‘application’ layer) the web portal and some ACTIVE applications, e.g. the Semantic MediaWiki, are also implemented on a server. The ACTIVE taskbar and generic applications are implemented in the client.

1.3.4 The AKWS software components

These components can also potentially be used individually, as part of a tailored application. The components are divided into three broad categories: context and resource information, informal processes, and tag recommendation.

Displaying context and resource information

component	Description
Basic AKWS platform	Provides the top-down part of context and meta-data management (including tagging of Office documents, Windows files, emails, URLs etc.)
Context visualizer	Displays visually those entities related to a specific context. <i>Entities</i> includes files, processes and people. The context visualizer also displays the relationships between these entities.

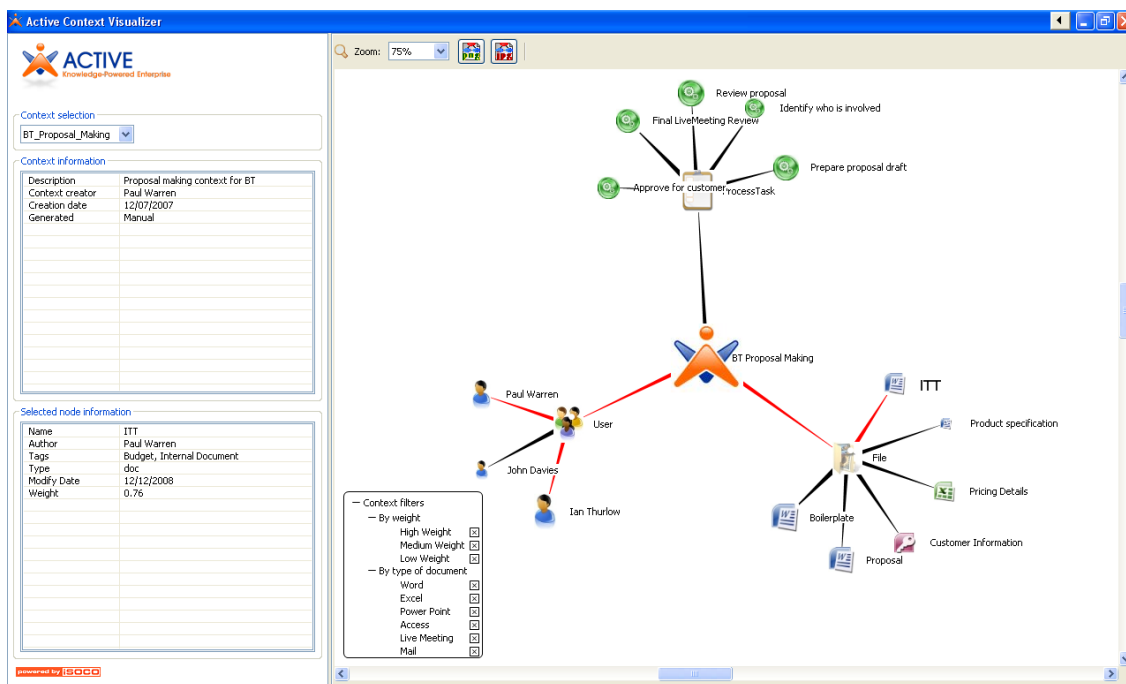


Figure 6: ContextVisualizer

Contextify

An Outlook plug-in which displays information relating to the context of a particular email, e.g. related emails, people contributing to an email thread, and attachments and links in the thread.

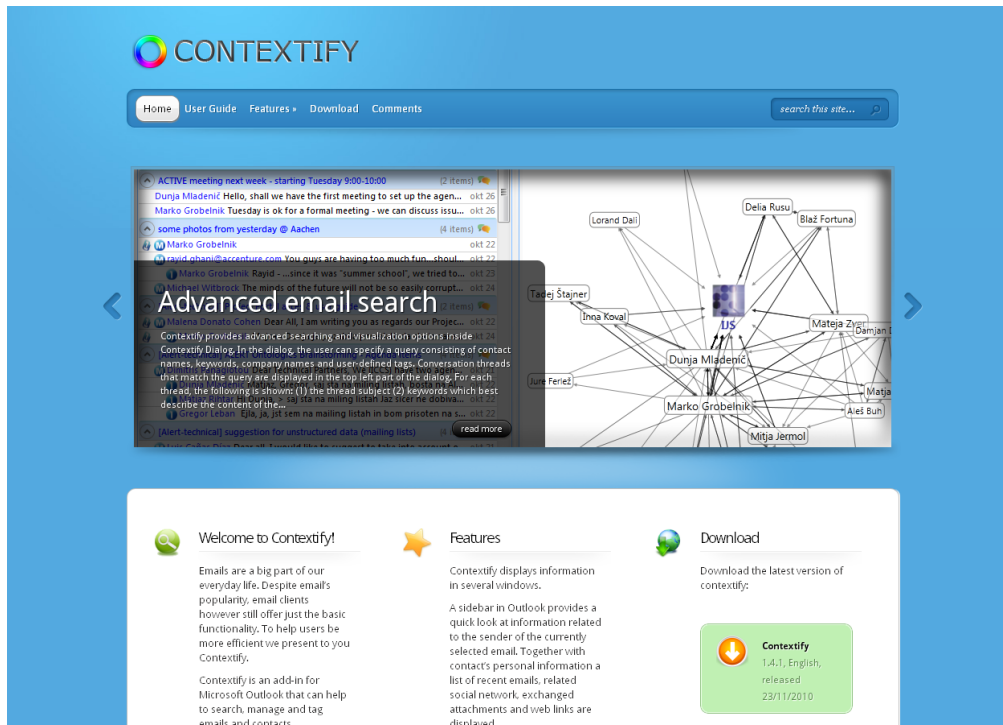


Figure 7: Contextify

LiveOffice Life	An Office plug-in which enables real time communication between people who are accessing contextually related information in Word, Powerpoint and Outlook.
Context detection	Detects when a user appears to have changed the focus of his or her work. Depending on the user configuration, the system automatically updates its current context, or the user is asked to confirm or reject the suggested change of current context.

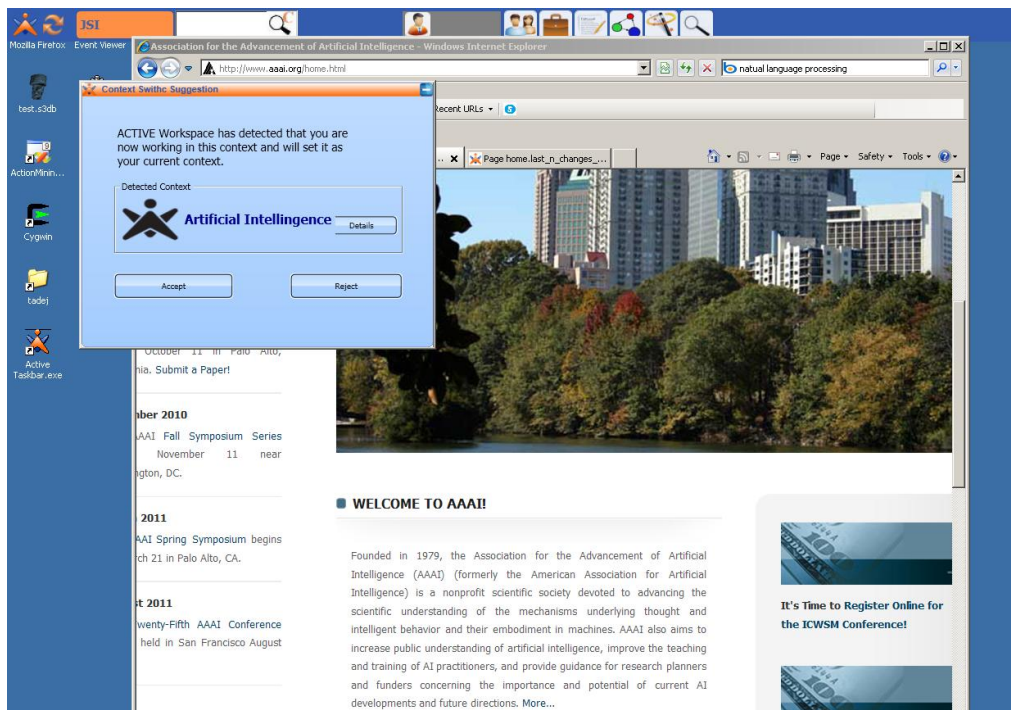


Figure 8: Context detection

Context discovery	Discovers new contexts based on the user’s behaviour. Depending on user configuration, these contexts are either incorporated automatically or presented to the user for acceptance or rejection. Context discovery may be from scratch, i.e. in the absence of any user-defined contexts, or context discovery may add to already existing contexts. In this way it is possible, for example, to use context discovery to enhance user-defined contexts.
Privacy preserving context mining	Undertakes context mining whilst at the same time maintaining certain privacy constraints. This software allows organizations to manage the trade-off between effective datamining and the maintenance of privacy.

For basic AKWS platform contact Igor Dolinsek (igor.dolinsek@comtrade.com), Comtrade d.o.o., <http://www.comtrade.com>.

For Context Visualizer, contact: Jose Manuel Gómez-Pérez, jmgomez@isoco.com, iSOCO, <http://www.isoco.com>

For Contextify, LiveOfficeLife, context detection, and context discovery, contact: Marko Grobelnik, marko.grobelnik@ijs.si, Jozef Stefan Institute, <http://www.ijs.si>

For privacy preserving context mining contact: Rayid Ghani, rayid.ghani@accenture.com, Accenture Technology Labs, <http://www.accenture.com>

Supporting informal processes

Taskpane	Enables users to create and edit processes, and associate information resources with each step in a process.
Task wizard	Enables the simple creation of process templates.
Process recording	Enables the user to describe a process by his or her actions. Once created, these processes can be shared and improved upon.
Knowledge Sphere Framework (KSF)	Creates and manages the virtual boundaries which exist when knowledge is shared within or across organizations. Using the SKOS and SIOC ontologies, the KSF enables the easy creation of security policies. A KSF visualization tool enables the visualization of how knowledge is shared and disclosed.

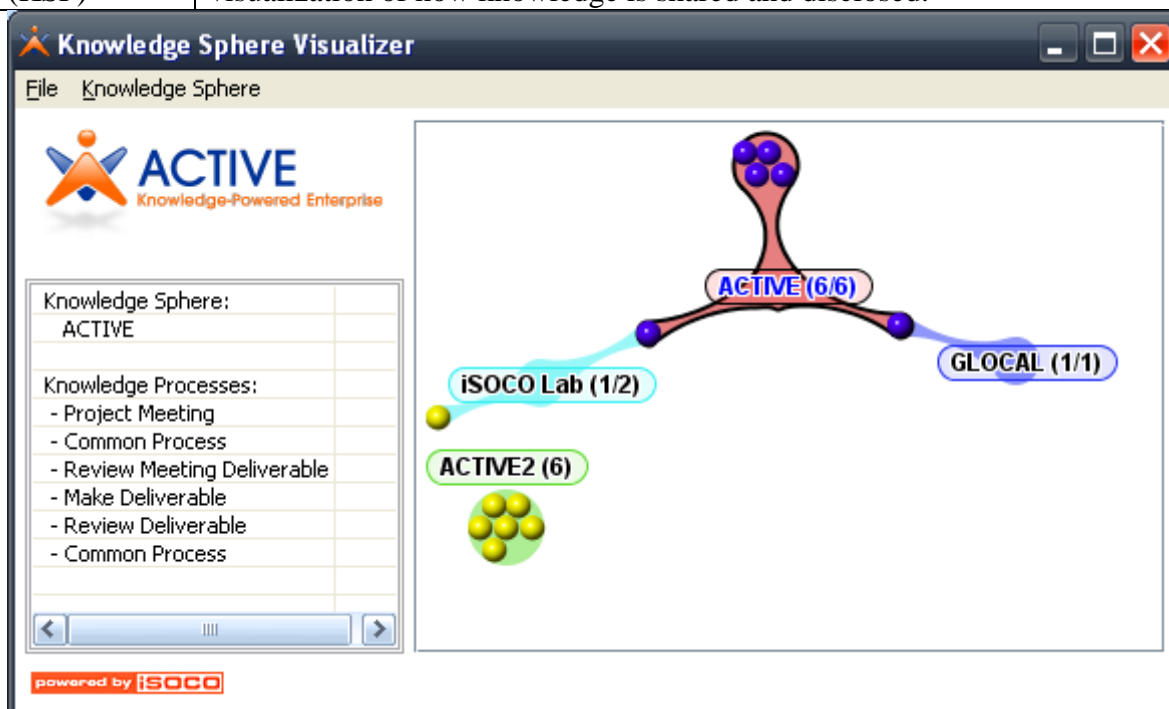


Figure 9: Knowledge Sphere Framework

Process discovery	Discovers processes based on the behaviour of single or multiple users.
Process optimization	Supports the optimization of processes according to a set of criteria, e.g. related to cost.
Process forecasting	Monitors a user’s behaviour and forecasts what the next user action will be and what information objects are required for those actions. These can then be presented to the user as suggestions in an unobtrusive way.

For process discovery, optimization, and forecasting contact: Marko Grobelnik, marko.grobelnik@ijs.si, Jozef Stefan Institute, <http://www.ijs.si>

For all other process management components, contact: Jose Manuel Gómez-Pérez, jmgomez@isoco.com, iSOCO, <http://www.isoco.com>

Tag recommendations

Tag recommendation service	Recommends tags to the user, both on the basis of the content of the information object being tagged, and also on the basis of the tags given by users to other similar objects.
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Contact: Marko Grobelenik, marko.grobelenik@ijs.si, Jozef Stefan Institute, <http://www.ijs.si>

1.3.5 The Semantic MediaWiki in ACTIVE

The SMW is a free, open-source extension to MediaWiki, the wiki system powering Wikipedia. For information about the SMW, see <http://semantic-mediawiki.org>. In ACTIVE, enhancements to the SMW have chiefly been undertaken by the Karlsruhe Institute of Technology and the University of Innsbruck. For more information contact Elena Simperl (elena.simperl@kit.edu).

The SMW extensions are available under an open source licence.

The SMW acts as a platform for the collaborative creation and sharing of knowledge. This includes the sharing of documents, processes, and information about people.

Enhancements to the SMW in ACTIVE fall into four broad categories:

- Enhancements to the user interface to improve how people interact with knowledge in the SMW.
- Software for automatically importing and exporting knowledge from the SMW.
- Software to detect inconsistencies and redundancies in the SMW. The approach taken is not to prevent their introduction, but rather to report them to the user.
- Software to graphically display and edit informal processes

The SMW is able to interoperate with the AKWS. Specifically this means:

- The SMW is aware of the context associated with information objects, and this information can be used in faceted search
- Process templates can be exported from the AKWS into the SMW, viewed and edited graphically, and then re-imported into the AKWS.

1.3.6 SMW components developed in ACTIVE

Enhancing the user interface

Lightweight ontology editor	For users who are not expert in ontology engineering. The editor uses a language more appropriate to such users, e.g. talking about <i>vocabularies</i> rather than <i>ontologies</i> .
Faceted search	Improves the user's capability to retrieve knowledge from the SMW. Because of the capability of the SMW to interoperate with the AKWS, one of the facets available is context.
AskTheWiki	Takes a user's keyword query and converts it into a structured form which the user can then modify to create exactly the required query.

Import and export

Knowledge import	Enables knowledge to be imported into the SMW knowledgebase, both from internal corporate sources, e.g. the organisational directory, and also external sources such as Freebase.
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Knowledge export	Enables export of knowledge in various formats, e.g. RSS, iCalendar and vCard
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Detecting inconsistencies

Inconsistency and redundancy checking	Techniques have been developed for detecting inconsistencies and redundancies in SMW ontologies and knowledgebases and for repairing such problems.
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Process display and editing

Process display and editing	The software displays processes graphically and allows processes to be edited graphically. Through interoperation with the AKWS, process templates can be exported from the AKWS, displayed and edited in the SMW, and then re-imported into the AKWS.
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1.4 Project impact

ACTIVE technology is available for use. The AKWS is freely available for non-commercial purposes from the project website. The major SMW extensions are available as open source software. Other ACTIVE components are available for free or on commercial terms. As already notified, Contextify is freely available at <http://babaji.ijs.si/contextify/>

1.4.1 Dissemination activities

To promote these results, ACTIVE partners have published widely in the scientific, technical and general literature, presented at a number of conferences, and organised two summer schools.

- Around 60 technical papers at conferences and in journals.
- A book, *Technologies for Personal and Team Productivity – Context, Semantics and Processes for Knowledge Management*, to be published by Springer in mid 2011.
- Chapters in a number of other books.
- Two summer schools.
- Extensive videos, as part of the videlectures.net site (<http://videlectures.net>), at <http://videlectures.net/active>
- Workshops, co-located with various conferences.
- Various presentations.
- A short video explaining the goals of ACTIVE, available on the project website at <http://www.active-project.eu>.
- Eight newsletters.
- A poster, a flyer and a brochure. The brochure, ‘Improving the productivity of knowledge work – the ACTIVE portfolio’, provides an overview of the results available from ACTIVE, and is available at <http://www.active-project.eu/publications.html>.
- Two press releases.
- Articles in various IT and related journals.

Dissemination key performance indicators

A number of key performance indicators were established to monitor dissemination activity. This sub-section lists them and describes what was achieved by the last year of the project.

Visitors to web-site

Measure	Definition	Target	Achievements year 3
Visits to web-site	Average number of visitors to ACTIVE web-site, per day.	30/ day	77 / day

The original target was to have an average 30 visits per day, which equates to a total of 10,950 per year. After the first year’s results, though, it was decided to establish a new target of 60 visits per day, equating to a total of 21,900 per year. The total number of visits during the third year was 28,292, superior to both targets.

The target measure refers to visits to the web-site, i.e. each repeated visit from the same visitor in the course of the year is counted.

In the table below we show both the number of visits as well as the number of unique visitors (i.e. the number of different persons that visited the web). Figures are considered on a monthly basis, i.e. we report the total number of visits on a monthly basis and also the total number of different (unique) visitors in any given month.

In the third year of the project the average number of visits has been **77 visits per day**. **In terms of different (unique) visitors, the average has been 39 visitors per day**.

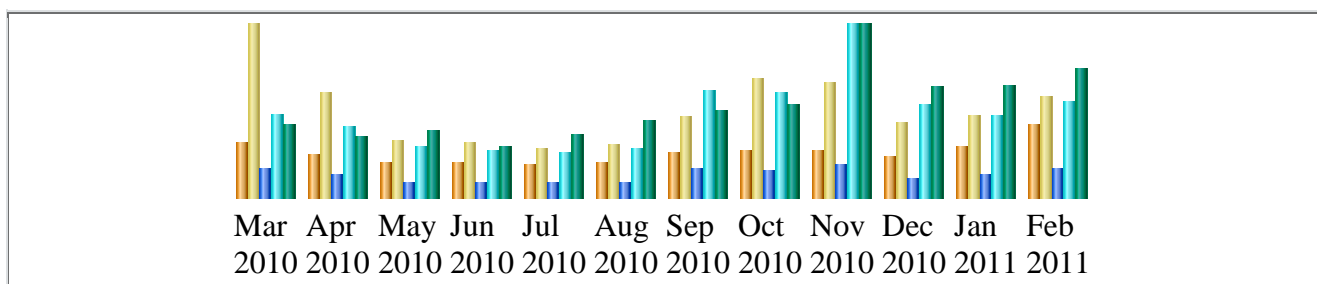
Other measures that are presented are the number of visited pages, the number of hits per page and the volume of content (in Megabytes) downloaded during all the visits. The values for these measures are presented in two separate categories, one is called the “viewed traffic”, which represents traffic created by humans, and the other is called “not viewed traffic”, which includes traffic generated by robots, worms, or replies with special HTTP status codes.

More precisely, each measure is defined as follows:

- **Unique visitors**- number of client hosts (IP address) who came to visit the site (and who viewed at least one page). This data refers to the number of different physical persons who had reached the site. If the same person (here distinguished by the person’s IP address) comes back e.g. a week later then this would not increase the number of unique visitors.
- **Number of visits**- a new visit is defined as each new incoming visitor who was not connected to the site during last 60 minutes. Repeated visits of the same person (IP address) are counted.
- **Pages**- number of times a page of the site is viewed (sum for all visitors for all visits). This data differs from "hits" in the sense that it counts only HTML pages as opposed to images and other files.
- **Hits**- number of times a page, image, file of the site is viewed or downloaded by someone.
- **Volume downloaded** - the amount of data downloaded, including all pages, images and files downloaded.

Table 1: ACTIVE web statistics (as of 28 February 2011)

Reported period	1 March 2010 to 28 February 2011				
First visit	01 Mar 2010 - 00:09				
Last visit	28 Feb 2011 - 16:25				
	Unique visitors	Number of visits	Pages	Hits	Volume downloaded
Viewed traffic	14,166	28,292 (2.0 visits/visitor)	92,336 (3.3 pages/visit)	348,305 (12 hits/visit)	7.22 GB (255 KB/visit)
Not viewed traffic (robots etc.)			40,164,745	40,181,770	23.8 GB



Month	Unique visitors	Number of visits	Pages	Hits	Volume downloaded
Mar 2010	1456	4742	9830	28531	562.81 MB
Apr 2010	1144	2745	7553	24296	470.53 MB
May 2010	919	1523	5128	17567	525.48 MB
Jun 2010	916	1441	4878	16218	397.95 MB
Jul 2010	858	1317	4898	15464	490.43 MB
Aug 2010	920	1384	5318	16789	594.41 MB
Sep 2010	1208	2135	9732	36407	680.31 MB
Oct 2010	1234	3122	9193	35890	724.74 MB
Nov 2010	1216	3046	11556	61461	1.37 GB
Dec 2010	1094	1974	6625	31956	869.71 MB
Jan 2011	1325	2171	7643	29120	882.97 MB
Feb 2011	1876	2692	9982	34606	1016.19 MB
Total	14166	28292	92336	348305	7216.9 MB

Update of ACTIVE web

Measure	Definition	Target	Achievements year 3
Update of ACTIVE web	Provide public Deliverables immediately after finalisation, provide news or other updates	One event or news update / month	74 new items were added in RP3

The ACTIVE website is a dynamic publicity medium that has been updated on a regular. The overview below lists which some key items on the website.

- A new page “Software download” has been added. This offers software created in ACTIVE for download. The page is split into three sub-pages:
 - ACTIVE Knowledge Workspace Software (AKWS). A download registration facility has been implemented so that we can track all downloads.
 - Contextify Outlook add-in
 - Semantic MediaWiki extensions
- The ACTIVE video produced in September 2010 has been added on the homepage. The video itself was uploaded to YouTube but linked from the ACTIVE web, and it plays directly on the ACTIVE web. There have been 625 views as of 3 February 2011. In addition there are 838 views of the version uploaded by the video producer company.
- A page aggregating a number of relevant RSS feeds has been added on the ACTIVE web. This page was viewed (clicked) 633 times in calendar year 2010.
- Learning community page: This page has been modified so that a few selected videos can now be started directly from the Active web. Further videos available on the videolectures page are accessible via a link.
- Publications home page
- Pages with the publications (journal and conference papers) were regularly updated

- Page with the public deliverables available: 60 Deliverables were made publicly available
- Page with the ACTIVE newsletter: Eight issues have been produced during the whole project, of which 5 in the last year (April, June, September, December 2010, February 2011);
- Page with other various types of publications, e.g. white papers, presentations at events without an associated peer reviewed publication, and annual reports. The ACTIVE video produced in September 2010 has been added on this page;
- News section with various information, e.g. regarding new project results, sponsorships, seminars or tutorials presentations
- Events section which provides information about events where ACTIVE is involved, or that are in the scope of Active etc.
- Press page, listing press releases and media coverage: currently with 8 items.
- In addition, the homepage presents a few selected dissemination materials such as the project synopsis, the video, flyer, poster, presentations and annual reports.

ACTIVE participation at key events

Measure	Definition	Target	Achievements year 3
Active participation at key events	Active participation additional to presenting a paper.	1 event in the first year; 2 events per year thereafter	2 workshops organized, plus one conference exhibition stand.

The specific measure was intended to capture activities such as ACTIVE partners being invited to speak at key events or ACTIVE arranging publicity exhibitions/stands at such events.

During the final year ACTIVE researchers collaborated to organise a number of workshops. These were:

- CIAO2010 workshop (<http://semanticweb.org/wiki/CIAO2010>) on Context, Information and Ontologies, Lisbon, 10-11 October 2010. The workshop was an all-day event organised collocated EKAW 2010.
- ACTIVE Industry Showcase (<http://www.estc2010.com/program-menu/workshops>), as part of ESTC 2010, Vienna, 2-3 December 2010. The goal was for Accenture, BT and Cadence Design Systems to demonstrate how they are using technology developed in the ACTIVE project to improve the management and sharing of knowledge. ACTIVE also organised a stand at the ESTC conference.

Similarly to the first two years, ACTIVE has sponsored three major European and international conferences:

- ICML2010 - 27th International Conference on Machine Learning 2010, 21-24 June 2010, Haifa, Israel (<http://www.icml2010.org>)
 - Machine learning is a key part of ACTIVE. Through this sponsorship ACTIVE was very visible at the event. As usual, the ACTIVE logo and link to the Active web was placed on the event web. ACTIVE partner JSI has made videos of a number of talks available on the videolecture web.
- SSSC2010 - Summer School on Semantic Computing, 25-31 July 2010, University of California, Berkeley (<http://www.sssc2010.org>).

- ACTIVE partners were very active at this event and gave a number of talks presenting ACTIVE results, e.g. on ontology engineering and design, and on the semantic web. The ACTIVE logo and weblink were placed on the event webpage.
- ESTC 2010 Platinum Sponsorship, 2-3 Dec 2010, Vienna (<http://www.estc2010.com>)
 - ESTC 2010 hosted the ACTIVE Industry Showcase, a half-day event presenting on ACTIVE technology, and in particular its use in the case studies.

Number of filmed and downloaded tutorials

Measure	Definition	Target	Achievements year 3
Number of filmed tutorials	Number of filmed tutorials available on the internal training web site	10 films / 10 hours	102 films / 54.1 hours
Number of downloads of the tutorials	Number of downloads of tutorials	1000 downloads	5968 downloads

During the project a significant number of videos have been made of conferences and presentations on topics related to ACTIVE. These are available for view on <http://videlectures.net/active>. The table below lists the events recorded during the third year of ACTIVE.

In each case, the table shows the number of videos made at each major event during the final year, the total viewing time, and the total number of downloads for the event for the period until 2nd February 2011.

Table 1: Filmed and downloaded tutorials (Achievements by event)

Event	Number of videos	Total viewing time	Number of downloads
Summer School on Advanced Technologies for Knowledge Intensive Networked Organizations 2010 - Aachen	24	25.5 hours	514
4th European Semantic Technology Conference	35	10.3 hours	829
World Wide Web Conference 2010 - Raleigh	16	8.2 hours	2375
4th International AAAI Conference on Weblogs and Social Media 2010 - Washington	27	10.1 hours	2782

ACTIVE Summer Schools

Measure	Definition	Target	Achievements year 3
Participation level at ACTIVE Summer schools	Number of participants at ACTIVE Summer schools	first summer school: 40 second summer school: 80	34 participants + 22 speakers

The COIN ACTIVE Summer School on Advanced Technologies for Knowledge Intensive Networked Organizations took place on October 18th-22nd, 2010 in Aachen (Germany). The event attracted an audience of

34 participants and 22 invited speakers. Participants came from 7 European countries – Germany, Italy, Lithuania, Netherlands, Romania, Slovenia, and the U.K, see Figure 10. The majority was from Academia and Industry sector as shown in Figure 11.

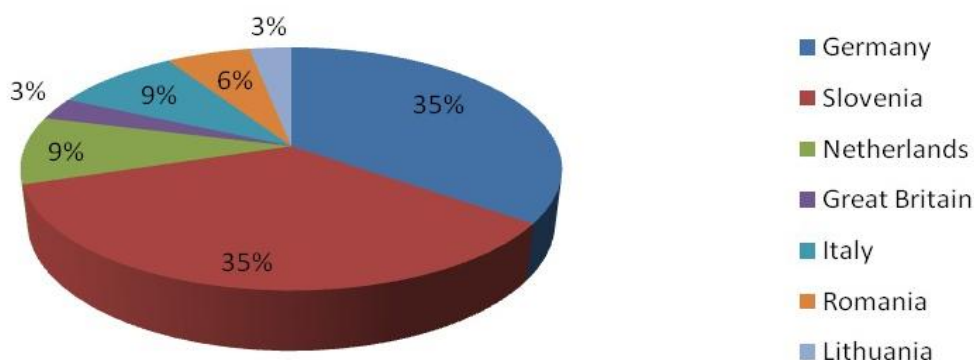


Figure 10 Summer School participants by country

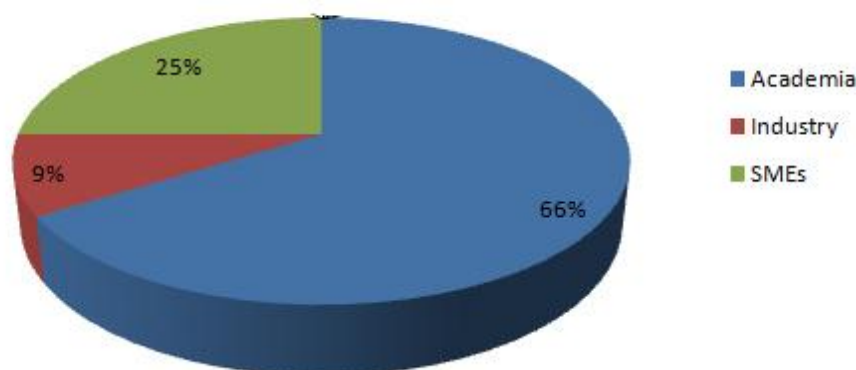


Figure 11: Summer School participants by sector

The program of the Summer School on Advanced Technologies for Knowledge Intensive Networked Organizations included ACTIVE and COIN theoretical days, demonstration day, SME day and a day for external presentations.

Program topics: ACTIVE Sessions

- Paul Warren: »ACTIVE Introduction«
- Frank Dengler: »Semantic MediaWiki«
- Marko Grobelnik: »Business Process Mining and Formalization«
- Igor Dolinšek: »Active Knowledge Work Space demonstration«
- Gregor Leban, Carlos Ruiz Moreno: »Pro-Active Knowledge Processes Support«
- Divna Djordjevic: »Accenture Case Study: Enterprise Collaboration & Knowledge Management through Machine Learning and Semantic Technologies«
- Ian Thurlow: »ACTIVE BT Case Study«
- Carolina Fortuna: »Data from sensors and knowledge about sensor networks: why is it so hard to get?«
- Ali Imtiaz: »ACTIVE, Ali and More«

Program topics: COIN Sessions

- Sergio Gusmeroli: »Collaboration and Interoperability – COIN Approach«
- Francesco Taglino: »Information and knowledge interoperability«
- Kim Jansson: »COIN Collaborative Services«
- Patrick Sitek: »User requirements elicitation adapting Serious Gaming approach«
- Klaus Fischer: »COIN Baseline services and negotiation support«

- Michele Sesana: »COIN Innovative Services«
- Michele Sesana: »COIN Platform Demonstration«
- Timo Syrjänen: »Pöyry Case Study within the COIN project«

Program topics: External Sessions – LarKC, EURIDICE

- Margherita Forcolin: »SMART Objects Innovation Lab (concept)«
- Michael Witbrock: »Web Scale Reasoning and the LarKC Project (Review and Progress)«
- Dirk Oedekoven: »ERP Innovation Lab«
- Sebastian Kropp: »Smart Objects Innovation Lab: Theory and practice - hand in hand«
- Christian Fabry, Gerhard Gudergan: »Service Science Innovation Lab«

Detailed information about the summer school is provided at the web page <http://coin-active-ss.ijs.si/>. The videolectures from the summer school are available at http://videolectures.net/coinactives2010_aachen.

1.4.2 Exploitation

Each of the commercial partners in ACTIVE had clear exploitation goals for the technology.

The primary exploitation route for *Accenture* is by internal use which will continue beyond the life of the project. ACTIVE technology is deployed internally to enhance internal enterprise search and collaboration tools. In addition to internal exploitation post-ACTIVE, there are possibilities of exploiting ACTIVE results and learnings with clients. This includes enhancing collaboration technology offerings within the Accenture Cisco Business Group as well as other KM offerings. Accenture has made one patent application as a result of its ACTIVE work, and is in the process of filing 2 more currently.

BT is using both the AKWS and the SMW within BT Business, which provides ICT products and services in the U.K. SME market. The trial of AKWS will extend for a further three months beyond the life of the project; this has been agreed with those ACTIVE partners providing the relevant AKWS software. The SMW software is entirely open-source, and its use will continue after the end of the ACTIVE project.

Cadence plans to integrate ACTIVE's process mining and process visualization software into its suite of software tools. This will create an integrated tool suite which captures methodological know-how either by documentation or by codified knowledge. It will include an API to retrieve project related status information in different customer formats and be customizable to specific customer requirements.

ComTrade is planning to release a product that will support collaboration using the ACTIVE concepts of context and enhanced metadata management. This product will integrate the context-related collaborative features with Microsoft File Explorer, Internet Explorer and the Microsoft Office 2007 suite.

iSOCO is including results from ACTIVE in its roadmap for a major customer employing over 40,000 people worldwide. Moreover, iSOCO has created a number of software modules in ACTIVE which will be integrated as part of iSOCO's tools for knowledge management. iSOCO has also created miKrow, a lightweight knowledge management solution based on microblogging and supported by semantics, which has incorporated process and context functionality from ACTIVE.

Kea-pro will use the results obtained in ACTIVE to provide empirical research methods for user tests and validation, and for other applications where valid information must be collected from samples of individuals in a distributed environment. The results which will be exploited are methodological advances and research tools (such as assessment scales or questionnaires) which were refined and tested in the ACTIVE project.

The project goals of the *European Microsoft Innovation Center (EMIC)* were to validate existing platforms and technology; identify new useful features; and provide feedback about existing APIs. Work in the project has proven that ISVs can build additional applications to support the knowledge worker, using Microsoft applications.

1.5 Contact details

Project Coordinator	Technical Director	Project Manager	Dissemination
John Davies john.nj.davies@bt.com	Prof. Dr. Rudi Studer studer@aifb.uni-karlsruhe.de	Uwe Herzog herzog@eurescom.eu	Jose Manuel Gómez jmgomez@isoco.com

ACTIVE Partners

BT (coordinator)	http://www.bt.com http://www.btplc.com/Innovation
AIFB at Karlsruhe Institute of Technology	http://aifb.uni-karlsruhe.de
iSOCO	http://www.isoco.com
Jozef Stefan Institute	http://www.ijs.si
STI Innsbruck	http://www.sti-innsbruck.at
Accenture	http://www.accenture.com http://www.accenture.com/techlabs
Cadence Design Systems	http://www.cadence.com
Eurescom	http://www.eurescom.eu
Forschungsinstitut für Rationalisierung	http://www.fir.rwth-aachen.de
HERMES SoftLab	http://www.hermes-softlab.com
kea-pro	http://www.keapro.net
Microsoft Innovation Center	http://www.microsoft.com/emic

1.6 Further information

ACTIVE has been a three year Integrating Project, running from March 2008 until Feb 2011. More information is available on the project website at

<http://www.active-project.eu>

A brochure describing the ACTIVE results is available at:

http://www.active-project.eu/fileadmin/public_documents/ACTIVE-Portfolio-Brochure.pdf

2 Use and dissemination of foreground

As already noted in section 1, ACTIVE has undertaken a comprehensive dissemination programme. This has included over 60 publications. ACTIVE's dissemination programme was targeted across a broad range of recipients. In particular, dissemination has been aimed at:

1. The scientific community, e.g. through academic publications and the organisation of workshops.
2. The IT community, e.g. through publications in journals of a more general nature. This included publications by case study partners in journals specific to their sector.
3. Senior executives and decision makers, in particular through the ACTIVE video which stresses the benefits of ACTIVE technology.

In addition, there have been a range of activities aimed across a number of communities. For example, the ACTIVE portfolio brochure, which lists the software and methodologies developed by ACTIVE, was designed for communities (1) and (2) above. Amongst the other dissemination vehicles designed for a broad range of recipients were the eight newsletters and two press releases.

Section 2A lists the publications and other dissemination activities.

Many of the ACTIVE results are available for use now, others are proprietary. A significant number of open-source extensions have been created for the Semantic MediaWiki; the ACTIVE Knowledge Workspace is freely available for research purposes; and Contextify is also available for informational, personal, non-commercial purposes; other software is proprietary. Information about availability has been provided in section 1 of this document.

Section 2B, which is confidential and not available for publication, describes the exploitation strategy of each of the commercial partners in ACTIVE. It also lists applications for patents and the exploitable foreground created by the project.

Section A (public)

TEMPLATE A1: LIST OF SCIENTIFIC (PEER REVIEWED) PUBLICATIONS, STARTING WITH THE MOST IMPORTANT ONES										
No.	Title	Main author	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifier ¹ (if available)	Is/Will open access ² provided to this publication?
1	Overcoming information overload in the enterprise: the ACTIVE approach	Elena Simperl	IEEE Internet Computing	Nov/Dec	IEEE	U.S.	2010	39-46		No
2	Towards Automatic Content Quality Checks in Semantic Wikis	Denny Vrandečić	AAAI Spring Symposium, Stanford		AAAI http://www.aaai.org/Papers/Symposia/Spring/2009/SS-09-08/SS09-08-017.pdf	U.S.	2009			Yes
3	Semantic Technology for Capturing Communication Inside an Organization	Marko Grobelnik	IEEE Internet Computing	Vol 13(4)	IEEE	U.S.	2009	59-67		No
4	ELP: Tractable Rules for OWL 2	Markus Krötzsch	International Semantic Web Conference, Karlsruhe	7 th	Springer	Germany	2008			Yes
5	Description Logic Reasoning with Decision Diagrams –	Sebastian Rudolph	International Semantic Web Conference,	7 th	Springer	Germany	2008			Yes

¹ A permanent identifier should be a persistent link to the published version full text if open access or abstract if article is pay per view) or to the final manuscript accepted for publication (link to article in repository).

² Open Access is defined as free of charge access for anyone via Internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.

	Compiling SHIQ to Disjunctive Datalog		ISWC-08, Karlsruhe							
6	Games with a Purpose for the Semantic Web	Katharina Siorpaes	IEEE Intelligent Systems	vol.23/No .3	IEEE	U.S.	2008	50-60		No
7	A Machine Learning Based System for Semi-Automatic Text Redaction	Chad Cumby	Twenty-Third Conference on Innovative Applications of Artificial Intelligence (IAAI-11)	23rd	AAAI	U.S.	2011			No
8	Key challenges for enabling agile BPM with social software	Giorgio Bruno	Journal of Software Maintenance and Evolution: Research and Practic		Wiley	U.K.	2011			No
9	Semantic technologies to enable the knowledge-powered enterprise - the ACTIVE approach	<i>Paul Warren</i>	<i>SemTech 2010, California</i>		<i>Wilshire Conferences</i>	<i>California</i>	<i>2010</i>			No
10	Corporate Knowledge Management Using Semantic Technology: A Practical Experience in Repsol, a Major Oil Company in Spain	Jesus Contreras	<i>SemTech 2010, California</i>		<i>Wilshire Conferences</i>	<i>California</i>	<i>2010</i>			No
11	Estimating and managing the costs and benefits of knowledge structures	Elena Simperl	SemTech 2010		Wilshire Conferences	U.S.	2010			No
12	A framework to measure the impact of knowledge process supporting	Marcel Scheibmayer	International Conference on Knowledge Management,		Springer	Germany	2010			No

	technologies		KMIS 2010, Valencia							
13	Process-centric enterprise workspace based on semantic wiki	Divna Djordjevic	International Conference on Knowledge Management, KMIS 2010, Valencia		Springer	Germany	2010			No
14	Articulation and Sharing of Distributed Design Project and Process Knowledge	Vadim Ermolayev	International Symposium on Intelligent Distributed Computing, IDC'2010) Tangier	4th	Springer	Germany	2010	Volume 315/2010 209-216		No
15	Decision-maker-aware design of descriptive data mining	Benedikt Kämpgen	International Scientific Colloquium, Ilmenau, Germany	5th	ISLE	Germany	2010	561-566		No
16	Modelling knowledge worker activity	Tadej Stajner	Workshop on Applications of Pattern Analysis, WAPA 2010, London		MIT http://jmlr.csail.mit.edu/proceedings/papers/v11/stajner10a/stajner10a.pdf	U.S.	2010	127-133		Yes
17	SEMACOM: Quantitative Cost Prediction for Knowledge-based Application Development	Emilia Cimpian	Proceedings of the International Conference on Internet, ICONI2010, Cebu, Philippines	2nd			2010			No
18	FOLCOM or the costs of tagging	Elena Simperl	International Conference on Knowledge Engineering and Knowledge Management, EKAW2010, Lisbon	17 th	Springer	Germany	2010			No

19	Inference Control to Protect Sensitive Information in Text Documents	Chad Cumby	ACM SIGKDD Workshop on Intelligence and Security Informatics (held with ACM SIGKDD International Conference on Knowledge Discovery and Data Mining KDD-2010)		ACM	U.S.	2010			No
20	Collaborative Modeling with Semantic MediaWiki	Frank Dengler	International Symposium on Wikis and Open Collaboration, ACM, Gdansk, Poland	6 th	ACM	U.S.	2010			No
21	Extending Open Rating Systems for Ontology Ranking and Reuse	Holger Lewen	International Conference on Knowledge Engineering and Knowledge Management, EKAW2010, Lisbon	17 th	Springer	Germany	2010	441-450		No
22	Semantics of Governmental Statistics Data	Denny Vrandeic	Proceedings of the 2nd International Web Science Conference WebSci10, Raleigh US	2 nd	Web Science Repository http://journal.webscience.org/400/	U.K.	2010			Yes
23	Semantic MediaWiki in Operation: Experiences with Building a Semantic Portal	Daniel Herzig	9th International Semantic Web Conference (ISWC2010), Shanghai	9 th	Springer	Germany	2010			No

24	Achieving Maturity: the State of Practice in Ontology Engineering in 2009	Elena Simperl	International Journal of Computer Science and Applications (special issue on Web Semantics)	Vol 7 / No 1	Springer	Germany	2010	983-991		No
25	Entity Resolution in Texts Using Statistical Learning and Ontologies	Tadej Stajner	Asian Semantic Web Conference	4th		Shanghai	2009			No
26	Achieving Maturity: the State of Practice in Ontology Engineering in 2009	Elena Simperl	International Conference on Ontologies, DataBases, and Applications of Semantics, Portugal	8 th	Springer	Germany	2009			No
27	Probabilistic temporal process model for knowledge processes: handling a stream of linked text	Marko Grobelnik	Conference on Data Mining and Data Warehousing			Slovenia	2009			No
28	Co-Creation of Value in IT Service Processes using Semantic MediaWiki	Rainer Schmidt	International Workshop on Business Process Management and Social Software	2nd	Springer	Germany	2009	255-265		No
29	A Matter of Principles: Towards the Largest DLP Possible	Markus Krötzsch	International Workshop on Description Logics	22 nd	CEUR-WS	Germany	2009			Yes
30	ACTIVE - enabling the knowledge-powered enterprise	Paul Warren	SemTech 2009, California		Wilshire conferences	California, U.S..	2009			No
31	ONTOCOM Revisited: Towards accurate cost predictions for	Elena Simperl	European Semantic Web Conference, Crete		Springer	Germany	2009			No

	ontology development projects									
32	Tran Semantic Wiki Search	Peter Haase	European Semantic Web Conference, Crete		Springer	Germany	2009			No
33	Tempus Fugit - Towards an Ontology Update Language	Uta Lösch	European Semantic Web Conference, Crete		Springer	Germany	2009			No
34	Behavioral research on the WWW	Tom Bösser	Websci 09		Web Science Repository http://journal.webscience.org/228/	U.K.	2009			Yes
35	Measuring the Benefits of Ontologies	Tobias Bürger	Ontology content and evaluation in enterprise workshop, OnToContent'08, Mexico				2008			No
36	Next Challenges for Semantic Technologies in Corporate Knowledge Management	Jose Manuel Gomez-Perez	International Conference on Knowledge Engineering and Knowledge Management Knowledge Patterns, EKAW2008, Acitrezza, Italy	16	`Springer	Germany	2008			No
37	Cheap Boolean Role Constructors for Description Logics	Sebastian Rudolph	European Conference on Logics in Artificial Intelligence, JELIA-08, Dresden	11	Citeseerx.ist.psu.edu	U.S.	2008			Yes
38	ACTIVE – Enabling the Knowledge-Powered Enterprise	Paul Warren	European Semantic Technology Conference,	2 nd	STI International	Austria	2008			No

			Vienna							
39	Description Logic Rules	Markus Krötzsch	European Conference on Artificial Intelligence, Patras, Greece	18 th	Citeseerx.ist.psu.edu	U.S.	2008			Yes
40	Terminological Reasoning in SHIQ with Ordered Binary Decision Diagrams	Sebastian Rudloph	AAAI Conference on Artificial Intelligence, Chicago	23rd	Citeseerx.ist.psu.edu	U.S.	2008			Yes
41	A Benefit Estimation Model for Ontologies	Tobias Bürger	European Semantic Web Conference, Tenerife	5 th	Springer	Germany	2008			No
42	OntoGame: Weaving the Semantic Web by Online Gaming	Katharina Siorpaes	European Semantic Web Conference, Tenerife	5 th	Springer	Germany	2008			No
43	Development Effort Estimation for Large Scale Business Ontologies	Elena Simperl	SemTech, San Jose		Wilshire Conferences	U.S.	2008			No
44	All Elephants are Bigger than All Mice	Sebastian Rudloph	International Workshop on Description Logics, Dresden	21 st	Citeseerx.ist.psu.edu	U.S.	2008			Yes
45	Articulation and Sharing of Distributed Design Project and Process Knowledge	Vadim Ermolayev	International Symposium on Intelligent Distributed Computing, Tangier	4th	Springer	Germany	2010			No
46	Estimating organizational potential for knowledge supportive collaborative technologies	Ali Imtiaz	eChallenges, Warsaw		www.echallenges.org	Europe	2010			Yes

47	Parametric tool to evaluate impact of organisational collaborative knowledge based systems	Ali Imtiaz	eChallenges, Warsaw		www.echallenges.org	Europe	2010			Yes
48	Exploring contexts and actions in knowledge processes	Tadej Stajner	Workshop on Context, Information and Ontologies, Lisbon		CEUR-WS	Germany	2010			Yes
49	Context as a tool for organizing and sharing knowledge	Ian Thurlow	Workshop on Context, Information and Ontologies, Lisbon		CEUR-WS	Germany	2010			Yes
50	A Context Model for Knowledge Workers	Vadim Ermolayev	Workshop on Context, Information and Ontologies, Lisbon		CEUR-WS	Germany	2010			Yes
51	Value Estimation Framework for Collaborative Knowledge Workspaces	Ali Imtiaz	International Conference on Concurrent Enterprises, ICE2010, Lugano	16th			2010			No
52	miKrow: Semantic Intra-Enterprise Micro-Knowledge Management System	G Alvaro	Extended Semantic Web Conference	8 th	Springer	Germany	2010			No
53	Social Software for Coordination of Collaborative Process Activities	Frank Dengler	The Third Workshop on Business Process Management and Social Software		Springer (LNBIP)	Germany	2010	396-407		Yes
54	Knowledge management at the customer front line	Paul Warren	Journal of the Institute of Telecommunications Professionals	Vol. 4, Part 1	Institute of Telecommunications Professionals	U.K.	2010	8-15		Yes
55	Applied Research and Development in	Vadim Ermolayev	Information Technologies in				2010			No

	Cooperation with Industry.		Education 5 (in Ukrainian)							
56	Wissensmanagement – Kooperation von Wissensarbeitern	Tom Boesser	Deutsche Gesellschaft für Luft- und Raumfahrt, FA Anthropotechnik, Kooperative Arbeitsprozesse			Germany	2009			No
57	A predictive framework for value engineering within collaborative knowledge workspaces	Ali Imtiaz	eChallenges			Turkey	2009			No
58	Using Task Context to Achieve Effective Information Delivery	Jose Manuel Gomez-Perez	Workshop on Context, Information and Ontologies (CIAO 2009), Crete		ACM	U.S.	2009			No
59	Framework for Value Prediction of Knowledge-based Applications	Ali Imtiaz	Workshop on Economics of Knowledge-based Technologies (ECONOM 2009), Poznan		Springer	Germany	2009			No
60	Collaborative Process Development using Semantic MediaWiki	Frank Dengler	Conference of Professional Knowledge Management, Switzerland	5 th	Citeseerx.ist.psu.edu	U.S.	2009			Yes
61	Improving knowledge worker productivity – the ACTIVE integrated approach	Paul Warren	BT Technology Journal	Vol. 26 No 2	Springer	Germany	2009	165-176		Yes
62	ACTIVE - Enabling the Knowledge-Powered Enterprise	Paul Warren	International Semantic Web Conference,		Springer	Germany	2008			Yes

			ISWC-08, Karlsruhe							
63	Cost, Benefit Engineering for Collaborative Knowledge Creation within Knowledge Workspaces	Ali Imtiaz	eChallenges 2008, Stockholm		www.echallenges.org	Europe	2008			Yes
64	A Paradigm Shift: From Business to Knowledge Processes	Carlos Ruiz	European Semantic Technology Conference, Vienna	2 nd	STI International	Austria	2008			No

TEMPLATE A2: LIST OF DISSEMINATION ACTIVITIES

NO.	Type of activities³	Main leader	Title	Date	Place	Type of audience⁴	Size of audience	Countries addressed
1	Summer School	JSI	1 st ACTIVE Summer School	4-6 September 2009	Bled, Slovenia	Scientific Community; Industry	43 plus 15 invited speakers	Europe, U.S.
2	Summer School	JSI	Summer School on Advanced Technologies for Knowledge Intensive Networked Organizations	18-22 October 2010	Aachen, Germany	Scientific Community; Industry	34 plus 22 invited speakers	Germany Great Britain Italy Lithuania Netherlands Romania Slovenia
3	Workshop	UIBK and KIT	INSEMTIVES 2008	26 th October 2008	Karlsruhe, Germany	Scientific Community		International
4	Workshop	BT, iSOCO, EMIC, KIT	CIAO 2009	1 st June 2009	Heraklion, Crete	Scientific Community		International
5	Workshop	UIBK and KIT	Webcentives '09	20 th April 2009	Madrid, Spain	Scientific Community		International
6	Workshop	iSOCO, Eurescom, Zaporozhye State University, fluid Operations AG	CIAO 2010	11 th October 2010	Lisbon, Portugal	Scientific Community		International

³ A drop down list allows choosing the dissemination activity: publications, conferences, workshops, web, press releases, flyers, articles published in the popular press, videos, media briefings, presentations, exhibitions, thesis, interviews, films, TV clips, posters, Other.

⁴ A drop down list allows choosing the type of public: Scientific Community (higher education, Research), Industry, Civil Society, Policy makers, Medias ('multiple choices' is possible).

7	Presentations	Eurescom	ACTIVE Industry Showcase (in association with ESTC2010)	2 nd December 2010	Vienna, Austria	Industry; Scientific Community		Europe
8	Video	Eurescom and BT	ACTIVE video, see: http://www.active-project.eu/publications.html	September 2010		Media; Industry		
9	Eight Newsletters	Eurescom and BT	ACTIVE News, see: http://www.active-project.eu/publications/newsletter.html	Dec 2008 May 2009 Nov 2009 April 2010 June 2010 Sept 2010 Dec 2010 February 2011		Industry; Scientific Community		International
10	Flyer	BT and iSOCO	ACTIVE flyer, see: http://www.active-project.eu/home.html	April 2008		Scientific Community; Industry		
11	Poster	BT and iSOCO	ACTIVE poster, see: http://www.active-project.eu/home.html	April 2008		Scientific Community; Industry		
12	Flyer	Eurescom	The ACTIVE portfolio, see: http://www.active-project.eu/publications.html	Nov 2010		Industry, Scientific Community		
13	Three advisory board meetings	BT and Eurescom		April 2009 April 2010 Dec 2010		Industry; Scientific Community		Europe and U.S.
14	Media briefing	Eurescom	Press release: Unlocking knowledge worker productivity (in English and German)	April 2008		Industry Media		Europe
15	Article (in Unternehmen der Zukunft)	FIR	Ontologien als Mittel zur Unterstützung betrieblichen Wissensmanagement	2008		Industry Media		German-speaking Europe
16	Article (in Unternehmen der Zukunft)	FIR	ACTIVE: Enabling the Knowledge Powered Enterprise	2009		Industry Media		Europe
17	Article (in Unternehmen der Zukunft)	FIR	ACTIVE: Geteiltes Wissen als Treibstoff für innovative Unternehmen	2010		Industry Media		German-speaking Europe

18	Article (in madri+d - http://www.madrimasd.org/)	iSOCO	ACTIVE promueve el conocimiento en Europa	May 2008		Industry Media		Spain
19	Article (in innovations report – http://www.innovations-report.de)	Eurescom	Produktivitätsschub für Wissensarbeiter	April 2008		Industry Media		German-speaking Europe
20	Article in EDACentrum Newsletter	Cadence	ACTIVE Technologies for Knowledge Management in Microelectronic Engineering Design.	May 2010		Industry		Europe
21	Book (published by Springer)	Eurescom, BT, KIT	context and semantics in knowledge management - applying and validating technologies for personal and team productivity	Mid-2011		Scientific Community, Industry		International
22	Book chapter (pub. World Scientific Publishing Co.)	UIBK	Methodologies for the creation of semantic data, in “Handbook of Metadata, Semantics and Ontologies”	2011		Scientific Community		International
23	Book chapter (pub. Nova Science)	KIT and UIBK	Ontology Reuse – Is it Feasible? In “Data Management on the Semantic Web”	2010		Scientific Community		International
24	Book chapter (pub. Chandos Publishing)	BT	Supporting a distributed sales force, in “Knowledge Management for Sales and Marketing”	2011		Industry		U.K.
25	Book chapter (pub. Springer)	BT	Knowledge Management in large organizations, in “Handbook of Semantic Web Technologies”	2011		Scientific Community		International
26	Book chapter (pub. Taylor and Francis Publishing)	KIT and UIBK	An ontology authoring tool for the Enterprise 3.0, in “Applied Semantic Technologies: using semantics in intelligent information processing”	2010		Scientific Community		International
27	Book chapter (pub. CRC Press)	KIT and UIBK	An ontology authoring tool for the Enterprise 3.0, in “Applied Semantic Web Technologies”	2011		Scientific Community		International

Section B (all material in section B is Confidential and not to be published)

This section details the exploitation plans of each of the project's commercial partners. It concludes with tables B1, listing patent applications, and B2, listing exploitable foreground.

B1 Accenture

B1.1 ACTIVE components to be exploited

Accenture has two exploitation paths: direct internal exploitation and secondary exploitation as part of its consulting offerings to clients. The primary exploitation route for Accenture is by direct internal use. ACTIVE technology is deployed internally to enhance internal enterprise search tools, primarily using context and process mining. We have also developed a proposal development add-in for MS office that will be available to Accenture consultants for everyday work as well as for collaborative development of project proposals. This add-on also contains the privacy preserving data mining component which is being exploited by the knowledge management teams within Accenture to sanitize documents of client confidential information before sharing them internally. These tools have been deployed Accenture-wide and are in use today. This use will continue post-ACTIVE.

In addition to internal exploitation post-ACTIVE, there are possibilities of exploiting ACTIVE results and learnings with its clients. This includes enhancing collaboration technology offerings within the Accenture Cisco Business Group as well as other KM offerings. Currently, Accenture is involved in a project developing a machine learning enhanced semantic wiki with a client. The team developing this wiki has benefited greatly from the work being done in ACTIVE and has been able to use the learnings and experience from ACTIVE. We expect further interest in such a wiki from other clients in the future which would lead to further exploitation of ACTIVE components.

B1.2 Impact

ACTIVE technology will enhance the internal knowledge management and enterprise search tools for Accenture. Providing consultants with better tools to share knowledge, collaborate, and reuse existing knowledge will result in improved productivity, reduced duplication of effort, and better work products. Almost all of Accenture employees are frequent users of the enterprise search tools. Enhancing existing systems with ACTIVE technologies will result in an enterprise-wide impact.

In addition to improving internal productivity, ACTIVE technology and learnings when incorporated into consulting offerings for clients will give Accenture a technology differentiator and improve our collaboration and enterprise search offerings.

B1.3 Commercial and IPR strategy

Commercial partnerships will need to be negotiated with JSI for context and process mining software. The Semantic MediaWiki is open source software and is freely available.

As of now, two patent applications have been filed by Accenture and we plan to file further patents during the next few months.

B1.4 Dissemination and awareness

In addition to Research & Development, Accenture Technology Labs is also responsible for organizing "Innovation Workshops" for Accenture Executives as well as their clients. We organize about 100 of these events where executive teams from Accenture's clients visit one of our lab locations, typically for a day long event. Researchers from the labs spend the day discussing current projects and trends in technology area relevant to the visiting client. ACTIVE technology and project has been one of the topics discussed in several of these workshops. We plan to continue this in the

future as well as show demos of prototypes and software developed in ACTIVE to clients, industry analysts, and partners.

Accenture actively encourages the publication of research results by its researchers, after taking into account any confidentiality issues. Accenture researchers in ACTIVE are also contributing to the publication of the project's research work and have papers under review currently.

B2 BT

B2.1 ACTIVE components to be exploited

Two main ACTIVE technologies will be exploited in BT; the ACTIVE Knowledge WorkSpace (AKWS), which has been developed by Hermes SoftLab (HSL), with components from other partners as explained below; and the semantic MediaWiki (SMW) extension to MediaWiki, which has been developed by the Karlsruhe Institute of Technology (KIT)

The AKWS and SMW will both be used within BT Business, a business division of BT Retail. Initial trials will focus on the ICT and Business Sales division within BT Business, which provides ICT products and services to the U.K. Small and Medium Sized Enterprise (SME) market. The AKWS is being promoted as a personal productivity and knowledge sharing tool, whilst the SMW is being promoted as a sales community collaboration tool.

The AKWS and SMW deployments depend on a number of supporting services and components, which have been developed by the Jozef Stefan Institute (JSI), Microsoft Research Center Europe (EMIC), Intelligent Software Components (iSOCO), and BT. Details are given in Annex A. The only exception to this is the Microsoft Word 2007 add-in for SMW querying, which is provided by Vulcan.

AKWS functions are integrated into the Microsoft Office suite, that is, Microsoft Word 2007, Microsoft PowerPoint 2007, Microsoft Excel 2007, and Microsoft Outlook 2007. Microsoft Internet Explorer 6 and Microsoft Internet Explorer 7 are also ACTIVE-enabled.

All users (BT's knowledge workers) using the Microsoft Office 2007 suite of applications will get access to AKWS functions from within those tools and from the AKWS taskbar; typical examples include context switching, tagging, and searching for information resources. Here information resources could be Microsoft Office documents, Uniform Resource Locators (URL), and emails (within Microsoft Outlook 2007). Knowledge workers in BT Business will use Microsoft Internet Explorer 6 to access AKWS management portal functions and the SMW collaboration tool.

B2.2 Impact

Many of BT's front-line sales people tend to work on multiple projects, and need to be agile in their response to various work demands. The AKWS and ACTIVE-enabled Microsoft Office tools will enable the specialists to switch quickly between tasks and have all information of relevance to their current task easily at hand; people should not have to search around for such information as they change from one working context to another. By taking into account the context in which people work, the AKWS will give access to relevant information and knowledge more easily. It will, for example, be possible for the specialists to prioritise the presentation of sales, product and design documentation, and relevant emails. Specialists will also be able to tag information resources with

either system suggested tags or personalised tags, which should enable them to filter and access information sources much more easily.

BT needs to become more responsive to its customers and get better and quicker at turning sales opportunities into contracted business. Maximising collective knowledge and skills across BT Business ICT Sales, through, for example, more effective knowledge sharing and reuse, is seen to have the potential to reduce the duration of the sales cycle, that is, the time from initial client contact with BT to closure of the sale. The Semantic MediaWiki is facilitating the re-use of existing solutions, or at least elements of those solutions, in support of new sales opportunities. The SMW uses the capability of wiki technology, enhanced with semantic annotations, to encourage collaboration between knowledge workers in BT Business ICT sales. The SMW is thus helping convert tacit and currently unshared knowledge, the so-called 'hidden intelligence' of BT, into transferable and actionable knowledge that will support more effective collaboration. In addition, compared with simple wiki text search, the semantics added to the SMW offers more powerful querying of the Wiki and thus faster and more accurate identification of relevant knowledge.

A significant area of concern is the quality of customer proposals, and in particular the management summary. In a study of 270 customer proposals, in which the management summary and the overall content of the proposal were evaluated, the management summary scored particularly poorly. There is, therefore, considerable management concern to improve proposals overall, but in particular the management summary. We anticipate that the enhanced knowledge sharing enabled by the AKWS and SMW will significantly improve the quality and speed of production of customer proposals.

BT Business had revenues of £2600m in 2009 and counts as its customers the very large majority of the UK's small and medium size enterprises. The potential benefit of even modest productivity improvements and customer proposal success rates is therefore very significant.

If the evaluation of ACTIVE technology in BT Business ICT is successful, and the business benefits of adopting the technology can be shown, then there is potential to exploit the technology in other parts of BT; there is already interest from BT Global Services and BT Group Legal.

The AKWS and SMW trials conducted during the project lifetime have generated sufficient interest for BT to continue both activities beyond the end of the project.

In the case of AKWS, BT and HSL have reached a licensing agreement for the trial to continue (and grow) for a further 3 months. At that point, BT will determine the next steps for AKWS in BT based on the benefits demonstrated by the trial.

Regarding SMW, it has now been fully deployed to the BT Business bid unit and to more than 150 technical specialists and its use will continue after the ACTIVE project ends.

B2.3 Commercial and licensing issues

Commercial partnerships will need to be negotiated with Hermes SoftLab (HSL) for continued use of the AKWS server and AKWS beyond the lifetime of the ACTIVE project. Partnerships will also need to be negotiated with EMIC, JSI, and iSOCO, for supporting AKWS services. The Semantic MediaWiki is open source software and is freely available.

A patent application has been made arising from BT's work on the project.

B3 Cadence Design Systems

B3.1 ACTIVE Components to be exploited

Cadence plans to integrate the following ACTIVE front-end components with Cadence Software tools developed by the Cadence VCAD Services organization for more productive management of Design Projects, in particular for increasing productivity in Design Project Planning:

- Knowledge process mining
- Knowledge Process visualization

The Cadence components to be integrated with ACTIVE components are

- Cadence Flow Interface (CFI)
- Cadence Project Navigator
- Cadence Portal

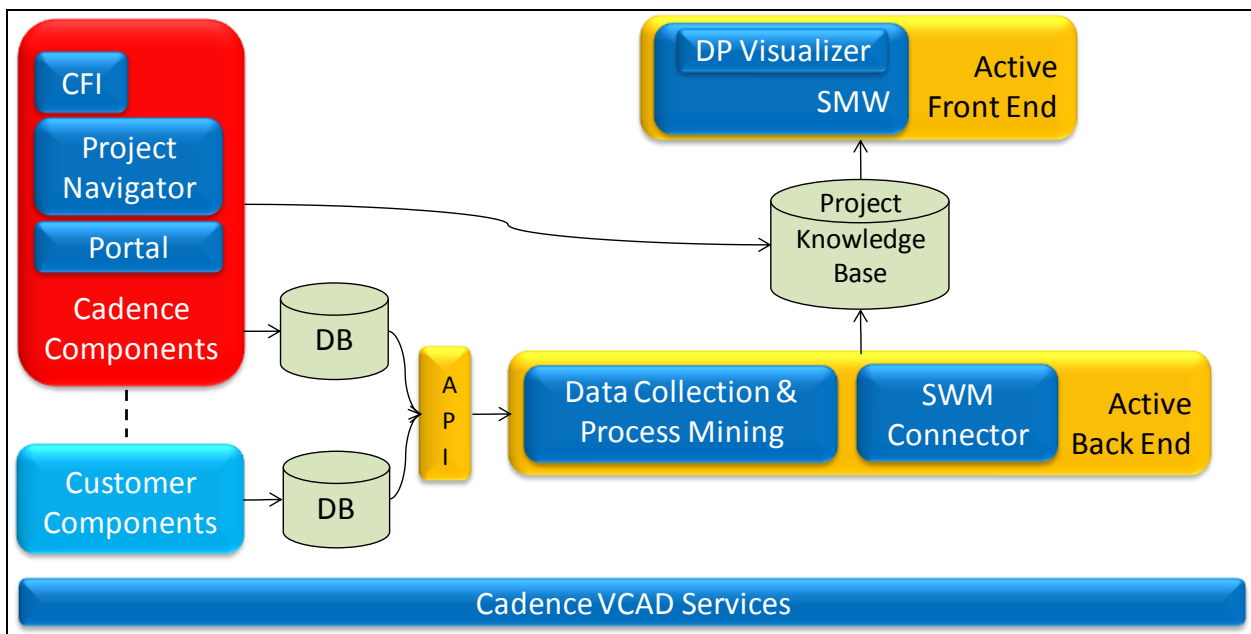


Figure 3: Components for Exploitation

B3.2 Fit with existing Product and Services portfolio

Cadence is the world's leading Electronic Design Automation Company. Its main products are software, hardware, services and IP, all targeted for Silicon Realization, Systems on a Chip (SOC) Realization and System Realization. Cadence VCAD services aims to provide support not only for customers who are developing integrated circuits (IC) but also design process related issues (how to design) and the management of them. For the design process management Cadence VCAD services have built solutions that support project and product managers in their day to day work. These solutions are separate to the standard Cadence software products as they require a level of customization for specific customer environments that is different to a standard software development and deployment model. An ACTIVated integrated solution paired with tailored services fits well with the Cadence VCAD Services charter to enable customers to improve their design processes and design productivity through flow automation, methodology improvements and project management solutions.

ACTIVE components complement the Cadence solution by adding a level of automation in the area of data mining. The visualization of the processed data through the Design Project Visualizer provides a powerful tool to the user by graphically showing the flow methodology and the status of a selected project.

Since customers have their own in-house solutions which they want to continue to use Cadence sees it to be mandatory to offer Services for the customization and integration of the overall solution in a customer design environment. Figure 3 includes an API that would retrieve project related status information in different customer formats to feed it to the ACTIVE enabled mining and data processing engines.

B3.3 Commercial and IPR strategy

Cadence intends to package the Cadence components and ACTIVE components as Methodology IP (VCAD IP). VCAD IP is an integrated tool suite that captures methodological know-how either by documentation or by codified knowledge. It is customizable for specific customer requirements. Such a VCAD IP is only to be sold as part of a Services engagement which also contains a dedicated budget for customizations, maintenance, ramp-up and user support.

Cadence will seek to license the aforementioned ACTIVE components from the respective owners to the extent they become part of the VCAD IP offering. The decision which components will become part of which version of the VCAD IP will be made after the end of the project. Timelines are outlined in section 3.3.4 “Exploitation Plan”.

Within ACTIVE, Cadence does not intend to file patents or enhance its patent portfolio.

B3.4 Exploitation Plan

Cadence obtained customer feedback on the design process monitoring and managing solution. Additional features were requested which need to be addressed by Cadence Services. The requested features are

- Productivity measurement possibility
- Adaption of customer design flows – interface to data mining engine via Application specific interfaces (APIs)
- Automation of relevant project data collection
- Support of different views of project, product line, enterprise level

The exploitation plan is based on a phased approach with the following time lines:

1H 2011: Prototype of combined Cadence components and ACTIVE components for Design Planning Process available. The plan is to include the ACTIVE components as listed in section 3.3.1

2H 2011: Execute field test with pilot customers. Evaluation of customer feedback and implementation of product change requests.

1H 2012: Production ramp-up phase. Release VCAD Methodology IP to general market as licensed VCAD IP under Cadence Services Engagements.

B3.5 Dissemination and Awareness

Cadence Services actively encourages the publication of research results by its researchers and employees, after taking account of any confidentiality issues. This is seen as making a contribution to the company’s reputation for innovation. Apart from research papers, Cadence generates “white

papers” of more general interest within the EDA and semiconductor industry. Such papers have been used to sensitize the industry to these matters as the economic climate changes dramatically. They will facilitate the further development of solutions in collaboration with Cadence customers and provide evidence of Cadence VCAD services innovative capabilities. Cadence Methodology IP is actively promoted by the Services Marketing team of Cadence in charge of the overall Cadence Services offerings. Cadence actively promotes its products including Services offerings in the Electronic Design Automation press or marketing events.

B4 ComTrade

B4.1 ACTIVE components to be exploited

The basic set of the ACTIVE components which will be exploited by ComTrade has already been identified in the deliverable D11.2.2. The entry level of the ComTrade product offering, derived from the ACTIVE technology, will be based on the services and components which form the top-down part of the ACTIVE knowledge workspace (AKWS):

- The top-down-related ACTIVE Knowledge Workspace Services
- ACTIVE Taskbar,
- ACTIVE Web portal
- ACTIVated MS Office tools (MS Outlook 2007, MS Word 2007, MS Excel 2007, MS PowerPoint 2007) and MS Internet Explorer.

During the last year this list was extended with the

- MS Windows File Explorer extension
- AKWS Local Workspace package.

For the advanced level of the ComTrade product offering we are considering to license also some parts which were developed by other ACTIVE partners. Those parts are potentially the MetaDataRecommender and ContextMining Services from JSI and TaskPane/TaskService from EMIC/ISOCO. In addition, we are planning to activate some popular applications which could not be activated in scope of the project because of the budgeting constraints (MS SharePoint, for example).

B4.2 Fit with existing product and service portfolio

ComTrade provides IT solutions & software engineering services to high-tech vendors, telecommunication service providers, financial institutions and the public sector. IT services and solutions are provided in particular in the domain of e-solutions, application development and system integration and IT infrastructure and service management.

ComTrade has completed a number of projects where custom developed software solutions were built to automate sophisticated but well-defined business processes and to provide company-specific knowledge-sharing. In addition ComTrade is working with leading business process automation and integration vendors like TIBCO to automate static business processes for our customers by using the TIBCO suite. Another group of IT solutions from ComTrade is based around Microsoft SharePoint.

Projects in all three segments of IT solutions, described above, are usually large and expensive projects suitable mostly for very large organizations. On the other hand there are a number of knowledge processes and knowledge sharing and collaboration needs where our existing implementation approaches would be just too expensive.

Therefore ComTrade is looking for an entry-level platform which would require less customizations and which would cover simple informal processes without extra customer-specific coding. This way our offering of IT solutions could be extended to a larger number of customers.

B4.3 Commercial and IPR strategy

In line with the recent discussions within the ACTIVE consortium we are open for the eventual licensing of the entire AKWS platform as it was developed by the Consortium members to some large platform vendor.

As an alternative we are considering using the above mentioned ACTIVE components for building a proprietary software package which will be available to the enterprises in the form of commercial software licenses. ComTrade will provide maintenance and support for the software and related consulting services. ComTrade will consider cooperation with some cloud computing provider to offer this software also as a service, but this depends primarily on the client's acceptance of such setup.

The basic software product will consist only of ComTrade-developed ACTIVE components. For the advanced version ComTrade will consider licensing the needed components from the respective consortium members or develop a proprietary substitute for some needed services.

B4.4 Exploitation plan

As discussed in the deliverable D11.2.2, for ComTrade it is not feasible to develop a fully-featured Enterprise 2.0 proprietary platform which would incorporate all ACTIVE components. Instead we are planning to release a relatively modest product that will support collaboration around the concept of the ACTIVE context and enhanced meta-data management. This product will integrate the context-related collaborative features with MS Windows File Explorer, Internet Explorer and the Microsoft Office 2007 suite of tools which are most widely used in the enterprises. In addition to the Office suite ComTrade is also evaluating the suitability of extending MS SharePoint with ACTIVE technology.

From commercial perspective we have to prepare a detailed product marketing plan and overall business plan for the product. Here we have to carefully analyze the evaluation and validation reports from the ACTIVE case study partners and re-assess the product potential through their feedback. Based on this feedback it may be also necessary to re-shape the product.

From the technical perspective we have to make a transition from the AKWS prototype software as developed in scope of ACTIVE project into a full blown software product. This includes the support for additional versions of the Windows OS (Windows Vista, Windows 7), support for Office 2010, internationalization support and ACTIVated MS SharePoint (note that AKWS prototype supports only Windows XP and Office 2007 in English version). The end-user documentation which was created for the prototype has to be transformed into the appropriate product manuals.

Preliminary results from the field trials and evaluation of the ACTIVE knowledge workspace prototype are showing that the overall user experience has to be improved significantly in the product to be more attractive to the end-users. Due to the budget constraints a number of features in the prototype are accessible only from the Web portal or indirectly by performing a series of steps. This has to be improved in the commercial product and should be available from both the Web portal and from the desktop Taskbar. Another aspect that needs to be further addressed is related to privacy concerns. In order to fully support the context mining research work in the project, the prototype is capturing complete document and communication content. For a commercial product it is necessary to provide a multi-stage approach, so that the customers with higher privacy concerns are giving the option to use only the top-down part of the system where content is not processed by the Workspace. Such enhancements require additional development effort for the commercial product.

The execution of the exploitation plan for this product may require from 500 K EUR to 900 K EUR in 2011, depending on the number of features in the first commercial release and on the marketing strategy. A large portion of that budget is needed to finance the marketing and sales activities. . The present financial situation prohibits us to finance the next exploitation steps for the full-blown product completely on our own. Currently we are in discussion with some potential investors to close the financing for the product rollout. However, from the discussions with some potential investors we had so far we identified one serious setback to their

participation. Some investors feared that since some AKWS features seem to be quite natural context-aware computing extensions to the basic Windows and MS Office platform they might be offered by Microsoft in the meantime in some form and prevent sufficient ROI for our product.

B4.5 Dissemination and awareness

ComTrade has participated in Consortium-wide dissemination activities. Several contributions to the ACTIVE newsletter were provided. Introduction training session for the AKWS was prepared for the ACTIVE summer school and significant effort was made to provide the entire AKWS available for download from the web for the interested researchers (Introductory web pages were contributed, significantly simplified workspace setup procedures were developed etc.). In addition, we have organized a number of internal ACTIVE presentations to the various teams inside of the company and to some companies in Slovenia. Our sales department for the Adriatic region is considering using the prototype for their needs and technical pre-sales people from our Enterprise Application Management product group are exploring the possibility for online demos to their international customers where this may be appropriate.

B5 iSOCO

B5.1 Introduction

iSOCO is a solutions company with innovative products and services for businesses. It has years of experience taking part in open innovation with academic and industry partners through R&D programs such as those sponsored by the European Commission and European Governments, and in transferring the results to the market through enhanced systems, products and standards. As a result, iSOCO has ample experience in marketing strategies for innovative complex software products.

In brief, this exploitation plan has the three next steps:

- 1) Business identification as an extension of the initial description of work regarding exploitation. This includes a description of business opportunities in terms of business ideas and business and transfer opportunities, with regard to their value proposition, value creation, and expected revenue. Moreover, it also identifies the exploitation roadmap, business ideas, business and transfer opportunities.
- 2) Value proposition describing the benefit that the business creates for its customers and partners and basically answers the question: what is the business doing? In addition, it includes explanations regarding value creation and how the benefit described in the value proposition is created. It may include steps in the value chain, as well as products, suppliers and distribution channels.
- 3) A description of the revenue model, i.e. how the company generates revenue from work in the ACTIVE project.

These constitute the basis for transferring achievements from demonstrations and prototypes to a wider implementation, to effectively prepare for widespread adoption of project concepts and results.

Concerning the three-step exploitation plan, the first point regarding business identification and the initial exploitation plan is covered in the corresponding market analysis (D11.1.1 and D11.1.2) and exploitation plans (D11.2.1 and D11.2.2). The following covers the second and third points of such an exploitation plan at iSOCO.

B5.2 ACTIVE components to be exploited

On the whole, the ACTIVE project will provide an opportunity to iSOCO to extend its current portfolio, upgrade its existing tools, and offer consultancy services. The ACTIVE components to be exploited by iSOCO can be arranged around the next three exploitation pillars:

- 1) ACTIVE as a platform –ACTIVE Knowledge Workspace (AKWS)-:
- 2) New individual tools from the project

As part of the ACTIVE project, iSOCO has developed some semantic components and tools offering a wide range of functionalities which can be included as part of the currently available products and future tools. This is the case of the Context Visualizer [D2.4.1], the Knowledge Process Management Framework [D3.2.3], and the Knowledge Sphere Framework [D3.4.3].

3) New technology provided as part of ACTIVE – ACTIVated miKrow

One of the biggest bottlenecks in Knowledge Management systems where end-users are supposed to actively participate is the hurdles they encounter that discourage them from keeping involved. However, the Web 2.0 approach, where users participate in an active manner, willingly generating new content, has been adopted by companies for their internal processes; this is known as Enterprise 2.0. These techniques are increasingly penetrating into the context of enterprise solutions. In particular, microblogging systems have been embraced as a way of fostering internal communication within the Enterprise boundaries (for example, Tim O'Reilly already mentioned this point saying that “there is a coming revolution for knowledge workers” referring to microblogging in companies⁵).

Indeed, microblogging was perceived and identified as a key trend within companies and due to its importance, a session was allocated for discussing with commercial partners possible requirements and features for a micro-blogging tool in companies at the first ACTIVE Summer School⁶.

For this reason, iSOCO developed a microblogging proof-of-concept and showed the mock-up to some commercial partners within and outside the project. Due to the positive feedback received during the first ACTIVE Summer School, we extended such a mock-up into miKrow⁷, a lightweight knowledge management solution based on microblogging and supported by semantics, used to foster collaboration, increase productivity and strengthen innovation in a large company. In brief, miKrow offers a lightweight approach for Knowledge Management for companies where short messages are: 1) analysed applying natural language processing techniques and relating the concepts within the message to company domain ontologies; 2) semantically indexed so they can be retrieved later on; and 3) related to some other messages and users, in order to produce recommendations for end-users.

Besides the microblogging and the advance semantic features, miKrow is ACTIVated (Figure 4): it offers all the possibilities provided by the ACTIVE Knowledge Workspace and relates the short messages with the processes defined and carried out by workers as well as their working contexts and resources. Hence, miKrow brings the benefits of microblogging as well as the benefits coming from the ACTIVE project (namely, increase productivity, fostering of collaboration, structuring of daily activities, etc.)

⁵ <http://sciencestage.com/v/33020/is-twitter-revolutionizing-the-web?-tim-o-reilly.html>

⁶ http://videlectures.net/active09_krengel_ipmu/

⁷ <http://www.youtube.com/watch?v=pXdGE4Gxu0A>

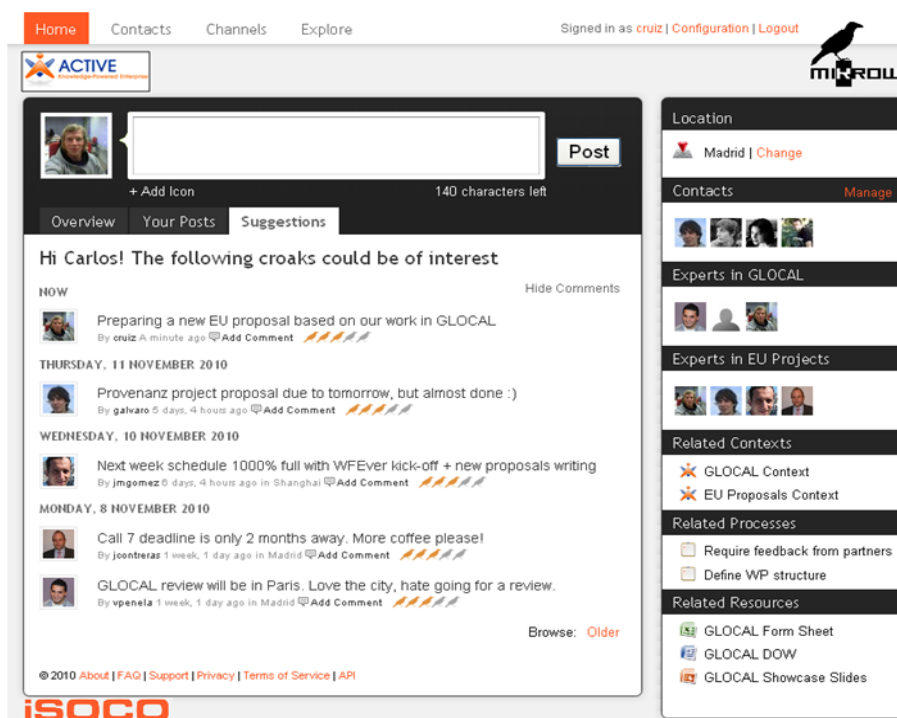


Figure 4 – ACTIVated miKrow by iSOCO

B5.3 Fit with existing product and service portfolio

The upcoming networked economy is based on the ability of companies to transform tacit and unshared knowledge into valuable and transferable knowledge and take profit from this knowledge. Following these ideas, iSOCO has a product line regarding information intelligent access traditionally focused on access and management of structured and non-structured information that it is usual in a professional environment. The ACTIVE technologies enable workers to switch quickly between tasks and have all relevant information for their current task easily at hand; people should not have to search around for such information as they change from one working context to another. By taking into account the context in which people work, the AKWS will give access to relevant information and knowledge more easily. The inclusion of the ACTIVE Knowledge Workspace in iSOCO's products will leverage a new way to capture and share knowledge in companies and enhance the way in which information is delivered to end-users as well.

In addition to the plans for the ACTIVE Knowledge Workspace as a new product, we have included the ACTIVE outcome as part of the roadmap which we have designed for our customer REPSOL (a Spanish oil and gas company employing over 40,000 people worldwide⁸). This roadmap is internal but includes training and testing deployments of AKWS in some departments (e.g. the Corporate Knowledge Management Department) with controlled user groups and iterations incorporating required new functionalities and possible integration with their systems. Although there is no guarantee yet of an uptake of the tool outside of this proposal, the potential is very high.

On the other hand, since a key factor for improving the productivity of workers is helping them to visualize and understand the context of their daily activities (for example, how people and resources are related), we have designed and developed a tool called Context Visualizer (Figure 5). However, since the architectural design of the tool is very modular and decouples the representation model, the visual configuration, and the user interface behavior (e.g. open the document associated to a resource icon when click on the icon), the tool can be easily adapted to any other domain and type of

⁸ http://en.wikipedia.org/wiki/Repsol_YPF

application. Furthermore, the tool is configured in XML, i.e. allowing the specification of what ontology representation model and source is used, what elements are used and how they are shown, and the behavior of each element. Therefore, a new application can be deployed with a low effort in programming.

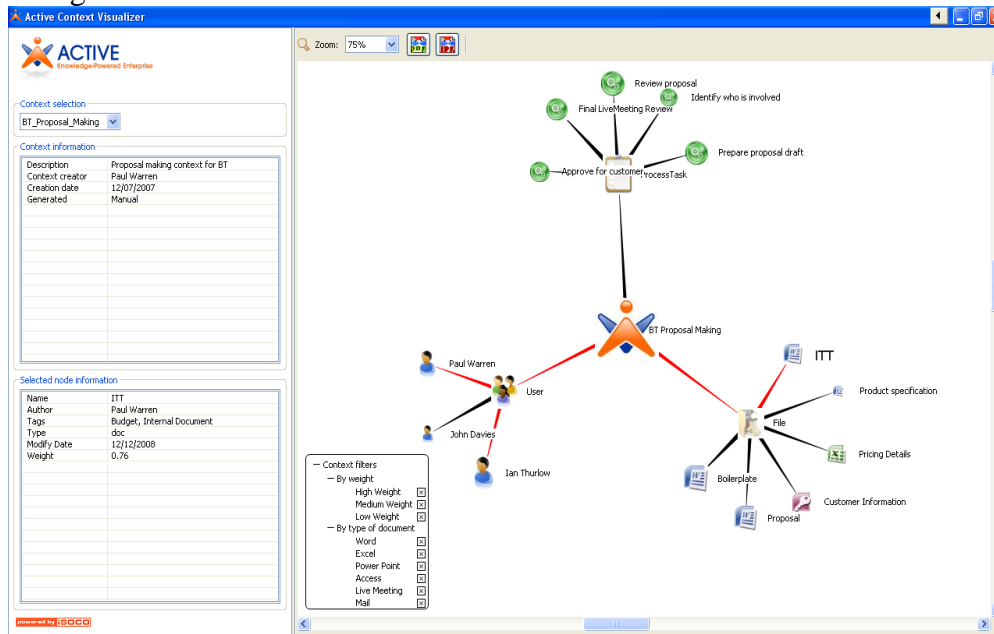


Figure 5 – The Context Visualizer by iSOCO

A similar statement can be applied to the Knowledge Process Management Framework and the Knowledge Sphere Framework. The former will be integrated as part of tools for Knowledge Management to define and structure the daily activities of workers, the latter will be incorporated to define and manage social groups where knowledge (and processes) is shared to only certain groups (according some access policies).

Finally, ACTVated miKrow extends iSOCO's current portfolio giving us an opportunity in two flavours:

- 1) Offering miKrow as stand-alone advanced microblogging tool and providing a lightweight solution for Knowledge Management within companies. To the best of our knowledge, only Yammer⁹ implements a microblogging enterprise solution without the advanced semantic functionalities provided by miKrow.
- 2) Offering miKrow in combination with the ACTIVE Knowledge Workspace as back end and the ACTIVated Office tools, and then, allowing the sharing and transfer of knowledge in terms of working contexts and users' processes.

B5.4 Impact on market

The impact on the market can be measured into two ways:

Firstly, we believe that ACTIVE technology will enhance our tools for knowledge management. Providing better and advanced tools to share and reuse knowledge will result in improved productivity, reduced duplication of effort, and better work products. ACTIVE technology will give us a technology differentiator and improve our collaboration and Enterprise search offerings.

Secondly, being the first company to provide a solution for corporate microblogging enhanced by semantic technologies and the corresponding added value will help us to obtain a privileged position.

We have to take into account that microblogging is one of the recent social phenomena of Web 2.0, being one of the key concepts that has brought Social Web to more than merely early adopters and tech savvy users. Although several microblogging networks have been built, Twitter is currently and

⁹ www.yammer.com

by far the most extended, counting more than 100 million users in April of 2010. With its ease of use and the countless number of mobile and desktop applications, Twitter has been able to grow from a mere tool to a key way of communication.

Obviously, where users go, companies follow, so it was just a matter of time for companies to start joining the global conversation to keep up with user's comments, opinions and with new trends, trying to be leaders and not simply followers. A recent study from Burson-Marsteller¹⁰ shows that about 80% of current Fortune 50 companies have an online presence in different social networks, being Twitter probably the one where their presence is more important -65% of the overall Fortune companies according to the study- and more relevant -different accounts for different purposes with direct interaction with customers.

While this approach mainly tries to leverage external information related to the company, internal knowledge could be even more important for a company: what their employees know, which are their opinions on company issues....Yammer enters the microblogging scene as the first social network with a clear enterprise orientation. Its products, as simple as Twitter high level design could be (status updates as plain text), has reached a huge success counting more than 70.000 companies from all kind of sizes and fields as their clients. However, Yammer does not really offer more than a simple evolution from current chat tools, evolving into a Web 2.0 approach, not providing with any of the benefits of the knowledge management sciences, thus relying only in syntactic analysis.

B5.5 Commercial and licensing issues

In general, iSOCO is a solutions company with innovative products and services for businesses. The business model consists of a mixture of licenses on our software products and services.

The following section describes the revenue model to be implemented for the three exploitation pillars outcome of the ACTIVE project at iSOCO:

- 1) ACTIVE as platform –ACTIVE Knowledge Workspace (AKWS)-
- 2) New individual tools from the project
- 3) ACTIVated miKrow

For the case of the ACTIVE platform and its technologies, the exploitation comprises some of the commercial partners in ACTIVE. This group of partners have agreed on negotiating and analyzing partnership depending on each particular exploitation case.

For the case of the new individual tools, since iSOCO offers specific agreements for licensing and maintenance for each potential customer, they will be included as part of the currently available products and new tools, and then, inheriting their license and terms of use.

The revenue model for a tool like the ACTIVated miKrow will have two flavours:

- As an off-the-shell product available for sale, lease, or licence offering integration or tailoring with specific users for companies.
- As a business service, where when a company joins, it pays a monthly fee for each user and number of tweets.

B6 kea-pro

Kea-pro is maintaining a portfolio of methods and tools to measure user behaviour and to assess the quality of use of applications in a wide range of IT-related domains of application. This has enabled kea-pro to provide effective services for product development and industrial RTD for all activities

¹⁰ <http://www.burson-marsteller.com/>

which require methodologically sound empirical research in human-machine interaction. Many aspects of the user-centred and agile development process employed in ACTIVE have become commonplace today, even if often neither the methodological standard nor the effectiveness of the actual approaches used are in practice as high as the state-of-the-art would allow. In this situation it is essential for kea-pro to develop leading edge methods which provide temporarily a competitive advantage.

The methods which were used, extended and tested in the ACTIVE project enlarge the range of application domains which can be supported. The most important new capability is a scientifically sound approach and tools to perform research on user behaviour in remote and distributed applications. Several technical advances have been made, and important methodological knowledge has been gained.

B6.1 ACTIVE results which will be exploited

The assessment of prototypes and user tests were carried out in ACTIVE with a variety of different applications, in different organizational contexts, and with different methods. In most cases part of the process was carried out remotely, in some case without direct personal contact with the subjects. The approaches to collect data from users were adapted to this situation, and tools such as questionnaires and assessment scales were adapted, or new ones constructed and tested for the domain of knowledge work in a range of professional contexts.

An important element is the user monitor which was specified for the AKWS by kea-pro, and implemented by the partner ComTrade. This has proven to be an effective tool for monitoring user behaviour and steering empirical tests of user behaviour. Without the user monitor it would have been difficult to obtain valid and reliable results on the usage of the AKWS. In further negotiations with ComTrade the commercial exploitation of this element will be pursued.

Background research on incentives in collaborative work which may influence the work of knowledge workers was carried out in the ACTIVE project. Although it was not possible to integrate functionality based on these results into prototype applications (due to the late completion of the prototypes) options were discussed with industry representatives, and some studies to extend this work in other applications were initiated. This issue has met with significant interest, and will be pursued as a research and development activity by kea-pro with partners in relevant application domains. The final outcome will enable kea-pro to recommend incentive mechanisms tailored to specific applications, industrial and market contexts, and user populations.

In all activities it was necessary to introduce professionals to the use of the ACTIVE tools and the research methodology employed for validation. These were documented in such a way that they can serve as training material for adopters of the user assessment methods and tools, the user monitor, or the incentives related results. These are made part of the existing training material which kea-pro has been maintaining with a number of partner organisations over a long period of time.

Kea-pro will exploit the results developed in ACTIVE by offering services in the research and industrial development domain, and by providing consultancy services, technology transfer and training to organizations which want to adopt these approaches. This will extend to areas where effective methods for collecting empirical data about user behaviour are required, and will not be limited to knowledge management or semantic technology.

B6.2 Commercial and licensing issues

The methodological knowledge developed by kea-pro is not patentable and can only be protected either by means of copyright law (which protects the expression of knowledge in the form of

documents, but does not protect ideas and principles as such), or by maintaining confidentiality. Unauthorized adoption of some of the tools used by kea-pro, such as standardized assessment scales, is a known problem and a serious obstacle for the further development and the commercial exploitation of this type of tools. Although the confidentiality agreements existing in a project such as ACTIVE provide appropriate protection in principle, in practice it is difficult to enforce these. There is certainly always a certain tension between the desire for early and extensive publications, and the need to maintain a competence lead for a certain time. The interests of different types of organizations (such as SMEs, Corporates, or research organizations) are often different in this respect.

The successful exploitation of the results obtained by kea-pro in the ACTIVE project demands that credible and scientifically sound results demonstrating the approach and capabilities developed in the ACTIVE project can be presented in the scientific literature. This has only been partly possible in ACTIVE, due to the delays in deploying the ACTIVE prototype applications to representative samples of users during the project lifetime. Kea-pro will actively pursue the continuation of these activities to assure that it will be possible to demonstrate convincing results, in particular for the remote monitoring of user behaviour and user reactions, and for the assessment of the information quality in knowledge-intensive applications.

B7 Microsoft

The European Microsoft Innovation Center (EMIC) was the Microsoft entity participating in ACTIVE. EMIC aims to transfer ideas and concepts from a European point of view to product groups. Therefore, we use internal dissemination channels to transfer ideas and concepts. The goal is to:

- Validate existing platforms and technology
- Bring up new features if useful; otherwise provide feedback about existing APIs to enable new scenarios and business opportunities

EMIC withdrew from ACTIVE after the second year (February 2010). Until then EMIC was working on collaborative information technology. As a result of organizational changes and internal adjustments of our technical strategy, we closed our research in the area of knowledge management and collaborative working environments. Both areas were key to our contribution in ACTIVE, and unfortunately this forced us to decide to step out from the project.

Regardless, collaborative information technology remains a big factor for Microsoft. There are products, such as Outlook, Exchange, Internet Explorer, SharePoint etc. providing the basic functionality for information management. In addition, all these applications provide public interfaces (APIs) so that independent software vendors (ISPs) or partners are able to build additional features or applications on top of this basic functionality. In general, Microsoft wants to enable vendors and partners in Europe and worldwide to focus on delivering integrated solutions that extend the core Windows products and add business value for customers. This delivers significant business value to customers in the form of higher information worker and IT productivity, business process improvements, and cost savings.

The ACTIVE project aims to combine information coming from different sources, such as Word, Excel, PowerPoint, Outlook, SharePoint, Internet Explorer to identify the working context and current tasks. A main focus for ACTIVE was to gather information from applications running on a desktop PC. The so-called ACTIVE Knowledge WorkSpace (AKWS) is facilitating this information to filter relevant emails or documents or to detect context switches. The applications on the PC which are supported by the AKWS were called *ACTIVated*. Most of the *ACTIVated* applications

were applications of Microsoft Office, such as Word, Excel, PowerPoint or Outlook. The activation of those applications was a requirement collected from the use cases provided by the scenario partners.

During the first two years of the project we supported the integration of Microsoft Office applications, Internet Explorer and Explorer into the AKWS. Our focus was on validating the available APIs and to check upcoming requirements.

Up to February 2010 there were no problems addressed with the available APIs. This has proven that ISVs can build additional applications using Microsoft applications supporting the knowledge worker during his daily life. Thus, there is a business value behind existing applications by simply using exposed interfaces and composing them into new, value-added applications, such as the AKWS.

Table B1

LIST OF APPLICATIONS FOR PATENTS, TRADEMARKS, REGISTERED DESIGNS, ETC.					
Type of IP Rights ¹¹ :	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Application reference(s) (e.g. EP123456)	Subject or title of application	Applicant (s) (as on the application)
Patent	YES	June 2012	EP10252220.8	Identifying Facts when Changing Working Context (The patent application title is "Context Population")	John Davies, Ian Thurlow & Nick Kings (BT)
Patent	YES	March 2012	Patent Application Reference number: 10306055.4	Title: PROCESSING A REUSABLE GRAPHIC IN A DOCUMENT	Divna Djordjevic, Rayid Ghani (Accenture)
Patent	YES	May 2012	Application number: 13/048,003	Title: CLASSIFICATION-BASED REDACTION IN NATURAL LANGUAGE TEXT	Chad Cumby, Rayid Ghani (Accenture)

¹¹ A drop down list allows choosing the type of IP rights: Patents, Trademarks, Registered designs, Utility models, Others.

Table B2

Type of Exploitable Foreground	Description of exploitable foreground	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Exploitable product(s) or measure(s)	Sector(s) of application	Timetable, commercial or any other use	Patents or other IPR exploitation (licences)	Owner & Other Beneficiary(s) involved
General advancement of knowledge	Software	NO		Enhancements to the Semantic MediaWiki	Information and communication	Immediate	Freely available, open source	KIT
General advancement of knowledge	Software	NO		Process visualising and editing in the Semantic MediaWiki	Information and communication	Immediate (e.g., through use in case studies)	Freely available, open source	KIT
General advancement of knowledge	Software	NO		Editor for Semantic MediaWiki	Information and communication	Immediate	Freely available, open source	UIBK
General advancement of knowledge	Methodology	NO		Methods to assess the costs of Web2.0 and semantic solutions	Information and communication	Immediate	Freely available, open source	UIBK
General advancement of knowledge	Methodology	NO		Cost benefit methods for decision support in collaborative knowledge creation	Information and communication	Immediate	Freely available, open source	UIBK
General advancement of knowledge	Methodology	NO		Methods for integrating ontology cost / benefit models into estimation, planning and	Information and communication	Immediate	Freely available, open source	UIBK

Type of Exploitable Foreground	Description of exploitable foreground	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Exploitable product(s) or measure(s)	Sector(s) of application	Timetable, commercial or any other use	Patents or other IPR exploitation (licences)	Owner & Other Beneficiary(s) involved
				controlling practices.				
General advancement of knowledge	Software	NO		Tool suite to use the prediction models developed for planning and control.	Information and communication	Immediate	Freely available, open source	UIBK
General advancement of knowledge	Methodology	NO		Methodology for measuring the business impact of knowledge supporting technologies	Information and communication	Immediate		FIR
General advancement of knowledge	Software	NO		Software for context and process learning	Information and communication	Immediate (e.g., through use in case studies)	Public software	JSI
General advancement of knowledge	Software	NO		Software for visualising learned processes and displaying process statistics	Information and communication	Immediate (e.g., through use in case studies)	Public software	JSI
General advancement of knowledge	Software	NO		Software for visualizing several contexts and searching through them	Information and communication	Immediate through use in Accenture case study	Public software	JSI
Commercial exploitation of R&D results	Software	NO		LiveOffice Live - enables real time communication	Information and communication	Immediate	Proprietary software	JSI

Type of Exploitable Foreground	Description of exploitable foreground	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Exploitable product(s) or measure(s)	Sector(s) of application	Timetable, commercial or any other use	Patents or other IPR exploitation (licences)	Owner & Other Beneficiary(s) involved
				between people who are using similar information according to the context of their work in MS Office productivity tools MS Word, PowerPoint and Outlook				
General advancement of knowledge	Software	NO		Software for knowledge process statistics reporting	Information and communication	Further development required	Public software	JSI
Commercial exploitation of R&D results	Software	NO		Contextify – an Outlook plug-in for displaying information relating to the context of a particular email	Information and communication	Immediate	Available for informational, personal, non-commercial purposes	JSI
General advancement of knowledge	Software	NO		Software to forecast user resource requirements	Information and communication	Further development required	Public software	JSI
General advancement of knowledge	Software	NO		Resource suggestion for use in Accenture Sable system	Information and communication	Immediate in Accenture case study	Public software	JSI
General advancement of knowledge	Software	NO		Predictive text authoring software	Information and communication	Further development required	Public software	JSI

Type of Exploitable Foreground	Description of exploitable foreground	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Exploitable product(s) or measure(s)	Sector(s) of application	Timetable, commercial or any other use	Patents or other IPR exploitation (licences)	Owner & Other Beneficiary(s) involved
General advancement of knowledge	Software	NO		Enrycher – software for recommending tags	Information and communication	Immediate in BT case study	Public software	JSI
General advancement of knowledge	Software	NO		ACTIVE learning community platform	Information and communication Education	Immediate		JSI
General advancement of knowledge	Video material	NO		ACTIVE training content	Information and communication Education	Immediate	Publicly available material	JSI
Commercial exploitation of R&D results	Software	NO		ContextVisualizer – software for browsing through information objects in a selected context	Information and communication	Further development required	Proprietary software	ISOCO
Commercial exploitation of R&D results	Software	No		Knowledge Sphere Framework – security framework for knowledge processes	Information and communication	Further development required	Proprietary software	ISOCO
Commercial exploitation of R&D results	Software	NO		Software for creating, visualizing and optimizing processes	Information and communication	Further development required	Proprietary software	ISOCO AND EMIC
Commercial exploitation of R&D results	Software	NO		OntoNavigator – search and visualization tool for object dependencies	Information and communication	Further development required	Proprietary software	EMIC

Type of Exploitable Foreground	Description of exploitable foreground	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Exploitable product(s) or measure(s)	Sector(s) of application	Timetable, commercial or any other use	Patents or other IPR exploitation (licences)	Owner & Other Beneficiary(s) involved
Commercial exploitation of R&D results	Software	NO		ACTIVE Knowledge Workspace server software	Information and communication	Further development required	Proprietary software	COMTRADE
Commercial exploitation of R&D results	Software	NO		ACTIVE Knowledge Workspace client software	Information and communication	Further development required	Proprietary software	COMTRADE
Commercial exploitation of R&D results	Software	NO		ACTIVE Knowledge Workspace SDK	Information and communication	Immediate	Proprietary software	COMTRADE
Commercial exploitation of R&D results	Software	NO		Privacy preserving data mining software	Information and communication	Immediate through use in Accenture case study	Proprietary software	ACCENTURE
Commercial exploitation of R&D results	Software	NO		Knowledge management system to support consultants	Information and communication	Immediate	Yes	ACCENTURE
Commercial exploitation of R&D results	Software	NO		Productivity and knowledge management system to support sales and technical support staff	Information and communication	Immediate	Yes	BT
Commercial exploitation of R&D results	Software	NO		Integration of ACTIVE's process mining and process visualization software into Cadence's suite of software tools.	Information and communication	2012	Proprietary software	CADENCE

Type of Exploitable Foreground	Description of exploitable foreground	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Exploitable product(s) or measure(s)	Sector(s) of application	Timetable, commercial or any other use	Patents or other IPR exploitation (licences)	Owner & Other Beneficiary(s) involved
				To create an integrated tool suite which captures methodological know-how either by documentation or by codified knowledge.				

3 Report on societal implications

Replies to the following questions will assist the Commission to obtain statistics and indicators on societal and socio-economic issues addressed by projects. The questions are arranged in a number of key themes. As well as producing certain statistics, the replies will also help identify those projects that have shown a real engagement with wider societal issues, and thereby identify interesting approaches to these issues and best practices. The replies for individual projects will not be made public.

A General Information *(completed automatically when Grant Agreement number is entered.*

Grant Agreement Number:

ICT-215040

Title of Project:

ACTIVE – Enabling the Knowledge-Powered Enterprise

Name and Title of Coordinator:

Dr. John Davies

B Ethics

1. Did your project undergo an Ethics Review (and/or Screening)?

- If Yes: have you described the progress of compliance with the relevant Ethics Review/Screening Requirements in the frame of the periodic/final project reports?

No

Special Reminder: the progress of compliance with the Ethics Review/Screening Requirements should be described in the Period/Final Project Reports under the Section 3.2.2 'Work Progress and Achievements'

2. Please indicate whether your project involved any of the following issues (tick box) :

RESEARCH ON HUMANS

- Did the project involve children?
- Did the project involve patients?
- Did the project involve persons not able to give consent?
- Did the project involve adult healthy volunteers?
- Did the project involve Human genetic material?
- Did the project involve Human biological samples?
- Did the project involve Human data collection?

RESEARCH ON HUMAN EMBRYO/FOETUS

- Did the project involve Human Embryos?
- Did the project involve Human Foetal Tissue / Cells?
- Did the project involve Human Embryonic Stem Cells (hESCs)?
- Did the project on human Embryonic Stem Cells involve cells in culture?
- Did the project on human Embryonic Stem Cells involve the derivation of cells from Embryos?

PRIVACY

- Did the project involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)?
- Did the project involve tracking the location or observation of people? X

RESEARCH ON ANIMALS

- Did the project involve research on animals?
- Were those animals transgenic small laboratory animals?
- Were those animals transgenic farm animals?
- Were those animals cloned farm animals?

<ul style="list-style-type: none"> • Were those animals non-human primates? 		
RESEARCH INVOLVING DEVELOPING COUNTRIES		
<ul style="list-style-type: none"> • Did the project involve the use of local resources (genetic, animal, plant etc)? 		
<ul style="list-style-type: none"> • Was the project of benefit to local community (capacity building, access to healthcare, education etc)? 		
DUAL USE		
<ul style="list-style-type: none"> • Research having direct military use 		
<ul style="list-style-type: none"> • Research having the potential for terrorist abuse 		
C Workforce Statistics		
3. Workforce statistics for the project: Please indicate in the table below the number of people who worked on the project (on a headcount basis).		
Type of Position	Number of Women	Number of Men
Scientific Coordinator		1
Work package leaders	2	13
Experienced researchers (i.e. PhD holders)	12	35
PhD Students	8	31
Other	23	50
4. How many additional researchers (in companies and universities) were recruited specifically for this project?		
Of which, indicate the number of men: 19		22

D Gender Aspects		
5. Did you carry out specific Gender Equality Actions under the project?	<input type="radio"/> X	Yes No
6. Which of the following actions did you carry out and how effective were they?		
	Not at all effective	Very effective
<input type="checkbox"/> Design and implement an equal opportunity policy	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="checkbox"/> Set targets to achieve a gender balance in the workforce	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="checkbox"/> Organise conferences and workshops on gender	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="checkbox"/> Actions to improve work-life balance	○ ○ ○ ○ ○	○ ○ ○ ○ ○
<input type="radio"/> Other: <input style="width: 300px;" type="text"/>		
7. Was there a gender dimension associated with the research content – i.e. wherever people were the focus of the research as, for example, consumers, users, patients or in trials, was the issue of gender considered and addressed?		
<input type="radio"/> Yes- please specify <input style="width: 200px;" type="text"/>		
<input checked="" type="radio"/> No		
E Synergies with Science Education		
8. Did your project involve working with students and/or school pupils (e.g. open days, participation in science festivals and events, prizes/competitions or joint projects)?		
<input type="radio"/> Yes- please specify <input style="width: 200px;" type="text"/>		
<input checked="" type="radio"/> No		
9. Did the project generate any science education material (e.g. kits, websites, explanatory booklets, DVDs)?		
<input type="radio"/> Yes- please specify <input style="width: 200px;" type="text"/>		
<input checked="" type="radio"/> No		
F Interdisciplinarity		
10. Which disciplines (see list below) are involved in your project?		
<input checked="" type="checkbox"/> Main discipline ¹² : Computer science		
<input checked="" type="checkbox"/> Associated discipline ¹² : Psychology	<input type="radio"/>	Associated discipline ¹² :
G Engaging with Civil society and policy makers		
11a Did your project engage with societal actors beyond the research community? (if 'No', go to Question 14)	<input type="radio"/> X	Yes No
11b If yes, did you engage with citizens (citizens' panels / juries) or organised civil society (NGOs, patients' groups etc.)?		
<input type="radio"/> No		
<input type="radio"/> Yes- in determining what research should be performed		
<input type="radio"/> Yes - in implementing the research		
<input type="radio"/> Yes, in communicating /disseminating / using the results of the project		

¹² Insert number from list below (Frascati Manual).

11c In doing so, did your project involve actors whose role is mainly to organise the dialogue with citizens and organised civil society (e.g. professional mediator; communication company, science museums)?	<input type="radio"/> <input type="radio"/>	Yes No
12. Did you engage with government / public bodies or policy makers (including international organisations)		
<input type="radio"/> No <input type="radio"/> Yes- in framing the research agenda <input type="radio"/> Yes - in implementing the research agenda <input checked="" type="radio"/> Yes, in communicating /disseminating / using the results of the project		
13a Will the project generate outputs (expertise or scientific advice) which could be used by policy makers? <input type="radio"/> Yes – as a primary objective (please indicate areas below- multiple answers possible) <input type="radio"/> Yes – as a secondary objective (please indicate areas below - multiple answer possible) <input checked="" type="radio"/> No		
13b If Yes, in which fields?		
Agriculture Audiovisual and Media Budget Competition Consumers Culture Customs Development Economic and Monetary Affairs Education, Training, Youth Employment and Social Affairs	Energy Enlargement Enterprise Environment External Relations External Trade Fisheries and Maritime Affairs Food Safety Foreign and Security Policy Fraud Humanitarian aid	Human rights Information Society Institutional affairs Internal Market Justice, freedom and security Public Health Regional Policy Research and Innovation Space Taxation Transport

13c If Yes, at which level? <input type="radio"/> Local / regional levels <input type="radio"/> National level <input type="radio"/> European level <input type="radio"/> International level		
H Use and dissemination		
14. How many Articles were published/accepted for publication in peer-reviewed journals?	8 journal papers; 56 conference publications	
To how many of these is open access¹³ provided?	2 journal papers; 20 conference publications	
How many of these are published in open access journals?	2	
How many of these are published in open repositories?	20	
To how many of these is open access not provided?	6 journal papers, 36 conference publications	
Please check all applicable reasons for not providing open access:		
<input checked="" type="checkbox"/> publisher's licensing agreement would not permit publishing in a repository <input type="checkbox"/> no suitable repository available <input type="checkbox"/> no suitable open access journal available <input type="checkbox"/> no funds available to publish in an open access journal <input type="checkbox"/> lack of time and resources <input type="checkbox"/> lack of information on open access <input type="checkbox"/> other ¹⁴ :		
15. How many new patent applications ('priority filings') have been made? <i>("Technologically unique": multiple applications for the same invention in different jurisdictions should be counted as just one application of grant).</i>	2, others planned	
16. Indicate how many of the following Intellectual Property Rights were applied for (give number in each box).	Trademark	0
	Registered design	0
	Other	0
17. How many spin-off companies were created / are planned as a direct result of the project?	Not aware of any currently	
<i>Indicate the approximate number of additional jobs in these companies:</i>		
18. Please indicate whether your project has a potential impact on employment, in comparison with the situation before your project:		
<input type="checkbox"/> Increase in employment, or	<input type="checkbox"/> In small & medium-sized enterprises	
<input checked="" type="checkbox"/> Safeguard employment, or	<input checked="" type="checkbox"/> In large companies	
<input type="checkbox"/> Decrease in employment,	<input type="checkbox"/> None of the above / not relevant to the project	
<input type="checkbox"/> Difficult to estimate / not possible to quantify		

¹³ Open Access is defined as free of charge access for anyone via Internet.

¹⁴ For instance: classification for security project.

<p>19. For your project partnership please estimate the employment effect resulting directly from your participation in Full Time Equivalent (FTE = one person working fulltime for a year) jobs:</p> <p>Difficult to estimate / not possible to quantify</p>	<p><i>Indicate figure:</i></p> <p>X</p>		
<h2>I Media and Communication to the general public</h2>			
<p>20. As part of the project, were any of the beneficiaries professionals in communication or media relations?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>			
<p>21. As part of the project, have any beneficiaries received professional media / communication training / advice to improve communication with the general public?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>			
<p>22 Which of the following have been used to communicate information about your project to the general public, or have resulted from your project?</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> Press Release <input type="checkbox"/> Media briefing <input type="checkbox"/> TV coverage / report <input type="checkbox"/> Radio coverage / report <input checked="" type="checkbox"/> Brochures /posters / flyers <input checked="" type="checkbox"/> DVD /Film /Multimedia </td> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> Coverage in specialist press <input type="checkbox"/> Coverage in general (non-specialist) press <input type="checkbox"/> Coverage in national press <input type="checkbox"/> Coverage in international press <input type="checkbox"/> Website for the general public / internet <input type="checkbox"/> Event targeting general public (festival, conference, exhibition, science café) </td> </tr> </table>		<input checked="" type="checkbox"/> Press Release <input type="checkbox"/> Media briefing <input type="checkbox"/> TV coverage / report <input type="checkbox"/> Radio coverage / report <input checked="" type="checkbox"/> Brochures /posters / flyers <input checked="" type="checkbox"/> DVD /Film /Multimedia	<input checked="" type="checkbox"/> Coverage in specialist press <input type="checkbox"/> Coverage in general (non-specialist) press <input type="checkbox"/> Coverage in national press <input type="checkbox"/> Coverage in international press <input type="checkbox"/> Website for the general public / internet <input type="checkbox"/> Event targeting general public (festival, conference, exhibition, science café)
<input checked="" type="checkbox"/> Press Release <input type="checkbox"/> Media briefing <input type="checkbox"/> TV coverage / report <input type="checkbox"/> Radio coverage / report <input checked="" type="checkbox"/> Brochures /posters / flyers <input checked="" type="checkbox"/> DVD /Film /Multimedia	<input checked="" type="checkbox"/> Coverage in specialist press <input type="checkbox"/> Coverage in general (non-specialist) press <input type="checkbox"/> Coverage in national press <input type="checkbox"/> Coverage in international press <input type="checkbox"/> Website for the general public / internet <input type="checkbox"/> Event targeting general public (festival, conference, exhibition, science café)		
<p>23 In which languages are the information products for the general public produced?</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Language of the coordinator <input type="checkbox"/> Other language(s) </td> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> English </td> </tr> </table>		<input type="checkbox"/> Language of the coordinator <input type="checkbox"/> Other language(s)	<input checked="" type="checkbox"/> English
<input type="checkbox"/> Language of the coordinator <input type="checkbox"/> Other language(s)	<input checked="" type="checkbox"/> English		

Question F-10: Classification of Scientific Disciplines according to the Frascati Manual 2002 (Proposed Standard Practice for Surveys on Research and Experimental Development, OECD 2002):

FIELDS OF SCIENCE AND TECHNOLOGY

1. NATURAL SCIENCES

- 1.1 Mathematics and computer sciences [mathematics and other allied fields: computer sciences and other allied subjects (software development only; hardware development should be classified in the engineering fields)]
- 1.2 Physical sciences (astronomy and space sciences, physics and other allied subjects)
- 1.3 Chemical sciences (chemistry, other allied subjects)
- 1.4 Earth and related environmental sciences (geology, geophysics, mineralogy, physical geography and other geosciences, meteorology and other atmospheric sciences including climatic research, oceanography, vulcanology, palaeoecology, other allied sciences)
- 1.5 Biological sciences (biology, botany, bacteriology, microbiology, zoology, entomology, genetics, biochemistry, biophysics, other allied sciences, excluding clinical and veterinary sciences)

2. ENGINEERING AND TECHNOLOGY

- 2.1 Civil engineering (architecture engineering, building science and engineering, construction engineering, municipal and structural engineering and other allied subjects)
- 2.2 Electrical engineering, electronics [electrical engineering, electronics, communication engineering and systems, computer engineering (hardware only) and other allied subjects]

- 2.3. Other engineering sciences (such as chemical, aeronautical and space, mechanical, metallurgical and materials engineering, and their specialised subdivisions; forest products; applied sciences such as geodesy, industrial chemistry, etc.; the science and technology of food production; specialised technologies of interdisciplinary fields, e.g. systems analysis, metallurgy, mining, textile technology and other applied subjects)

3. MEDICAL SCIENCES

- 3.1 Basic medicine (anatomy, cytology, physiology, genetics, pharmacy, pharmacology, toxicology, immunology and immuno-haematology, clinical chemistry, clinical microbiology, pathology)
3.2 Clinical medicine (anaesthesiology, paediatrics, obstetrics and gynaecology, internal medicine, surgery, dentistry, neurology, psychiatry, radiology, therapeutics, otorhinolaryngology, ophthalmology)
3.3 Health sciences (public health services, social medicine, hygiene, nursing, epidemiology)

4. AGRICULTURAL SCIENCES

- 4.1 Agriculture, forestry, fisheries and allied sciences (agronomy, animal husbandry, fisheries, forestry, horticulture, other allied subjects)
4.2 Veterinary medicine

5. SOCIAL SCIENCES

- 5.1 Psychology
5.2 Economics
5.3 Educational sciences (education and training and other allied subjects)
5.4 Other social sciences [anthropology (social and cultural) and ethnology, demography, geography (human, economic and social), town and country planning, management, law, linguistics, political sciences, sociology, organisation and methods, miscellaneous social sciences and interdisciplinary, methodological and historical SIT activities relating to subjects in this group. Physical anthropology, physical geography and psychophysiology should normally be classified with the natural sciences].

6. HUMANITIES

- 6.1 History (history, prehistory and history, together with auxiliary historical disciplines such as archaeology, numismatics, palaeography, genealogy, etc.)
6.2 Languages and literature (ancient and modern)
6.3 Other humanities [philosophy (including the history of science and technology) arts, history of art, art criticism, painting, sculpture, musicology, dramatic art excluding artistic "research" of any kind, religion, theology, other fields and subjects pertaining to the humanities, methodological, historical and other SIT activities relating to the subjects in this group]

[end of document]