



Digital Business Ecosystem

Contract n° 507953

WP34: Exploitation & Sustainability

Market Watch Strategy

Deliverable 34.2.1



Information Society
Technologies

Project funded by the European Community under the "Information Society Technology" Programme

Contract Number: 507953
Project Acronym: DBE
Title: Digital Business Ecosystem

Deliverable N°: Market Watch Strategy D34.2.1
Due date: 10/06/2004
Delivery Date: 04/10/2004

Short Description:

DBE Market Watch is a deliverable in WP 34 of the DBE project. The main task of Market Watch is to create an observatory designed to examine and raise awareness of current and future technology standards and e-business developments used within and outside of the DBE project, and to provide a digest of these technologies, standards and business practices as they impact on, and are implemented in, the DBE project.

Partners owning: IBM, TTC, FZI

Partners contributed: all

Made available to: Consortium and EC

Versioning		
Version	Date	Author, Organisation
1	01/01/04	Peter Stanbridge

Quality check

1st Internal Reviewer: Andrea Nicolai, T6

2nd Internal Reviewer: Petri Räsänen, TTC

Contents

Introduction	4
Objective	4
Process and Management of the Market Watch	7
Content Creation Process	7
Editorial Process	7
Editorial Team	7
Editorial structure	7
Roles	8
Collection and contribution	8
Editing and publishing process	9
Subject matter, sources and observatory	10
Subject matter monitored by Market Watch (subject to readership feedback)	10
Market Watch sources	10
The Observatory	11
Publication taxonomy	12
Permissions	12
Draft Permission and Contribution Letters	13
Draft Permission to publish abstract / link letter	13
Draft letter requesting contributions (content) to Market Watch issues	15
Content Model and Taxonomy	17
TAXONOMY	18
Taxonomy / Subject matter	18
Sectors	18
ICT-Trends	19
ICT-Strategy	19
ICT-Technology	19
ICT-Adoption information services	19

Introduction

Objective

DBE Market Watch is a deliverable in WP 34 of the DBE project. The main task of Market Watch is to create an observatory designed to examine and raise awareness of current and future technology standards¹ and e-business developments used within and outside of the DBE project, and to provide a digest of these technologies, standards and business practices as they impact on, and are implemented in, the DBE project².

The Objectives for the Market Watch are to:

1. ensure that the project's use of technology, methodologies and delivered services are up-to-date.
2. provide a knowledge source made available to the project, which will minimise duplication
3. provide the project with an expert source of knowledge relating to various information technology standards principally because DBE partners such as IBM, SUN and Intel have permanent representation within the important standards organisations.
4. avoid divergence in the use of standards by openly encouraging convergence
5. enable conformance with any legal, directives and best practice frameworks that may be relevant to the overall DBE project ensuring the protection of the long term viability of the project.
6. Avoid isolation that may result from the DBE environment and architectures diverging from common standards
7. enable dialogue with the various standards bodies where the DBE project has potential to enhance and extend existing standards and frameworks.

The Market Watch has a broad scope encompassing emerging standards, trends, research results and directives from the areas of science, computing and business. It has also a wide target audience, ranging from the project participants, the European Commission to the general public. To reach such a broad audience, the Market Watch will be published in three different mediums; regular updates to the project intranet, a by monthly published document and publications to the project public website.

To ensure that the content is relevant to our audience and to minimise the risks associated with covering such a broad range of topics given the resources allocated to the Market Watch, initial attention will be given to technology standards and current e-business developments relevant to the DBE project. The scope will then broaden as the Market Watch team can engage a wider team of observers with specialist knowledge, who can contribute to a broadening publication.

¹ We include directives with standards

² See technical DBE_Annex_1_final page 184

With these objectives in mind, Market Watch therefore comprises both a learning function (where technology and standards are absorbed into or adopted by the DBE) and an engagement function (where the DBE can potentially provide expansions or case studies to existing standards bodies). Furthermore it comprises a business plan function, where the business potential of DBE is positioned in the competitive landscape.

These relationships are illustrated in Figure 1 on the next page.

Market Watch consists of three main activities. Firstly, it monitors sources for relevant material. Sources could include, but won't be restricted to standards organizations (e.g. W3C, OMG, OASIS) research institutions and universities, publishers (of appropriate technical and business research papers) industry (where products and ideas are brought to market) and internal DBE sources (principally because the many of innovative activities in the DBE could have implications beyond the DBE project).

Secondly, Market Watch will publish its findings on a periodic basis. Publications will contain high quality reports pertaining to new or important results relating to standards, new business opportunities (or models) or other technological or scientific results of importance to the DBE (or business ecosystems in general) .

Publication will consist of three main channels. Firstly, Market Watch will publish a report (planned bimonthly) for circulation amongst the DBE community and for the DBE project office within the European Commission for distribution to interested parties within the Commission³. Secondly, it will publish internally to the DBE intranet and for the purposes of informing DBE participants of new developments. Finally, Market Watch will eventually publish to the DBE public website, which will provide the interested public with information on how current and future trends in all monitored areas will impact emerging business technologies and concomitant business practices within the DBE

Content relevance is a key factor in the success of Market Watch. The following activities will ensure that readers obtain the information they need throughout the DBE project:

1. Market Watch will undertake periodic readership feedback questionnaires to gauge the usefulness of the reported content.
2. In addition to feedback surveys, readers will be given a questionnaire seeking information about the nature of their information requirements and potential sources the Market Watch team should monitor.
3. a number of work packages indicate obvious requirements for standards and emerging developments watch. For these areas (such as work packages relating to computing, the knowledge base and ontology/BML development) Market Watch team will make personal contact with workstream and workpackage leaders to build a more embrative community around the watch.
4. The Market Watch team will be available to engage research relating to ad-hoc requests for information from participants within the DBE project. A question facility will be provided for this purpose⁴.

³ Trial versions of the Market Watch publication will be internally circulated, and after feedback has been considered, official publication to the Commission will be made (we expect this to be from issue 3)

⁴ Which may be implemented via an e-mail system or available within Collabnet

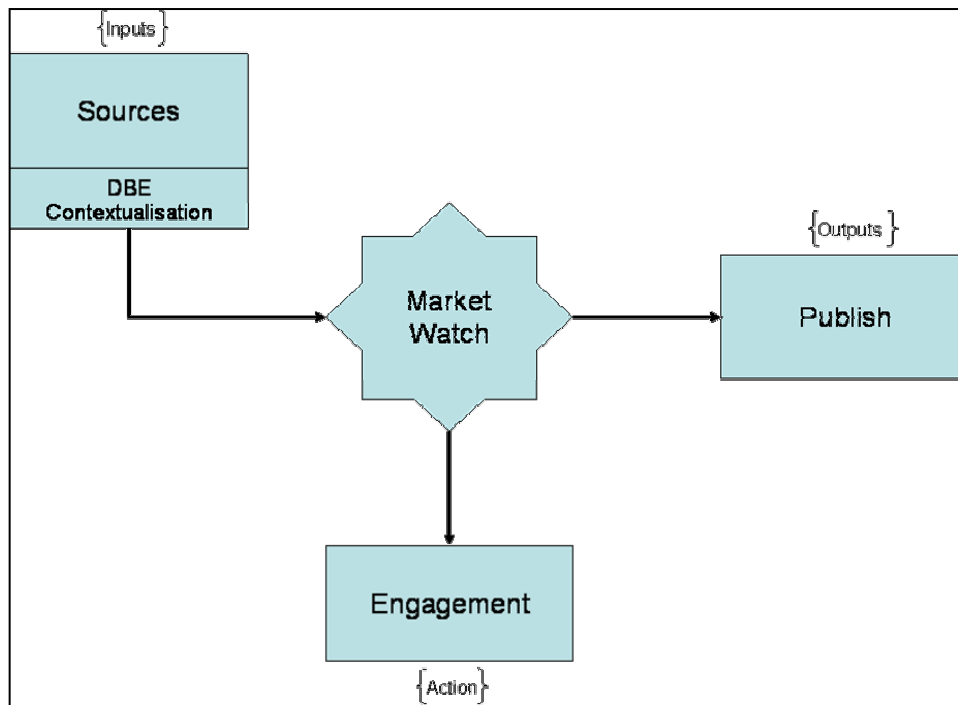


Figure 1 – Market Watch context

Given that the readership requirements within each channel are unique, content within each channel may frequently differ, but with sufficient overlap to require a uniform content capture and maintenance process, which needs to be carefully managed. With this in mind, an extensive section on the processes and management of the Market Watch work package task is given below.

Thirdly, it is important that the DBE research community engage with standards organisations (such as W3C, OMG, IEEE, ISO, OASIS) and commission projects such as COSPA, to ensure that where possible, current standards are considered, but more importantly, to provide proper dialogue with standards organizations in those cases where the DBE offers promising input into the standards themselves, therefore enabling the DBE to contribute to the next generation of standards development.

Some participants within the DBE consortium⁵ already have high level participation in the standards organizations and we plan to use these contacts to the full. We have also initiated contact with the copras project (see www.copras.org) who are responsible for aiding 6th framework projects to engage with standards organisations.

As a final note to the Market Watch objectives, we mention the relationship of Market Watch publications to other communication activities inside the DBE project. The Market Watch publications are primarily outside in, focussing exclusively on external developments that have a high priority for the direction of the DBE project (or similar endeavours undertaken across the European Union) whereas the strategy of the DBE Bulletin publication is inside

⁵ Such as IBM, SUN and Intel

in. The Bulletin covers news, events and achievements within the consortium and has as its main aim to provide knowledge to the consortium as a whole of the various activities happening within the project.

The DBE website is an inward out publication platform considered by the Market Watch as the best platform to inform the external world of the development of standards and e-business developments that may be important to the general technology and business communities.

Process and Management of the Market Watch

Content Creation Process

Because of the rapid evolution of technologies, and complexity and flow of information, it is important to carefully construct, through a series of well-planned stages, a thorough piece of content that is both organised in its presentation and thorough in its development.

The Content Creation Process describes the workflow process by which new content is researched and/or created. From research to authoring to editing and publishing, establishing a formal content creation process is the most efficient way to develop and approve information of this nature.

The content lifecycle has six key phases to get high-quality, project-relevant content:

- Specify - objectives, audiences, topics, and content types are defined
- Research - all material required to create content is compiled & analysed
- Create - content is created to project specification, incorporating all appropriate research
- Quality-assure - content goes through a thorough editing and sign-off process
- Publish - content is published (to websites and printed version)
- Evolve - structured processes are defined for archiving, managing and refreshing published content.

Editorial Process

Editorial Team

The Editorial Team will consist of a number of editors, ideally including a representative of each of the DBE workstreams (Science, Computing, Business, and Socio-Economic) who have the relevant subject matter expertise. In addition, some external partners will be invited to participate in the editorial production as well as for content creation⁶.

Editorial structure

The editorial processes for managing, developing, reviewing and updating content will be handled at different levels by the Editorial Team. In general, the Editorial Team has

⁶ We plan, for example, to request leading journals to supply us with relevant papers.

stewardship for the overall editorial process. The chief editor is responsible for daily operations and infrastructure. New materials submitted to Market Watch will be screened by the chief editor and routed to the appropriate subject matter experts from the DBE workstreams. There will be a subject matter expert for each topic contained within Market Watch.

The tasks of the Editorial Team include:

- Providing content on one or more topics⁷
- Conducting reviews
- Providing feedback, comments, annotations
- Agree on documents for potential inclusion into the official version of the Market Watch editions.

Roles

The key roles for the editorial process are:

- the Editorial Team is responsible for the overall editorial process and approval of final version for publication
- a person responsible for daily operations and infrastructure and actual publication of the content approved by the Editorial Team
- each workstream within the DBE project is ideally represented in the Editorial Team, and provides⁸ and/or reviews content submitted for the Market Watch publications
- within each workstream, one or more subject matter experts are selected to review and/or create content

Collection and contribution

The following task list illustrates the activities undertaken by the editors (including those outside the DBE project, such as standards body representatives). The purpose of these tasks is to ensure that every item published will focus on the DBE project and its activities (i.e. what are the implications for DBE and how does DBE implicate the technology/standards, etc.).

- Editors propose to the Editorial Team topics, papers and website references to be covered in the Market Watch issue (in general, these topics will include 'Technology', 'Emerging Standards', 'ITC Adoption for SMEs', 'Innovation' (application of Technology))
- Editors conduct research for topic-specific issues
- Editors contact subject-matter experts for contributions to the Market Watch issue

⁷ This should not be seen as necessarily creating the content, but in most cases will involve collecting content from other relevant sources.

⁸ Again, it is expected that the workstream participants will not be the original source of content. Their role will typically range from discovery, editorial work (providing abstracts, interpretations or summaries, for example).

- Editors collect all research and contributions from Editorial Team and subject-matter experts
- Editors write, where appropriate, interpretation, abstracts or summaries of the content being published⁹

Editing and publishing process

- Size of the printed version of Market Watch will not be more than two double-sided pages and contain abstracts of content (with links printed to original sources where appropriate)
- Market Watch as published in the project website contains links to full content (articles, white papers, case studies, etc.)
- The Editor will prepare a draft Market Watch issue and forwards this to the Editorial Team and subject-matter experts for their review
- Editorial Team and subject-matter experts conduct their review, and provide feedback, comments, annotations, and interpretations to the editors
- When a new document or a suggested revision is received, the Editorial Team is invited to read the submissions and post their comments
- The Editorial Team and subject-matter experts reviews must be completed within a specific time frame. The content owners can then make revisions and resubmit their materials for a second round of reviews and feedback. Additional rounds may be conducted at the discretion of the editors.
- After the last round of reviews and comments are completed, the submission is forwarded to the Editorial Team to decide if the submitted materials will be added to the official version of the document.
- Final approval by Editorial Team: editor finalises the content into a word document with abstracts and links to the underlying content for final review and approval by Editorial Team.
- Once approved by Editorial Team, editor produces the web pages (DBE project website and public website) as presented in the word document and produces the pdf printed version of the final content.

⁹ This is important, because many developments may link to content that is not necessarily obviously related.

Subject matter, sources and observatory

Subject matter monitored by Market Watch (subject to readership feedback)

Initial period:

1. Programming environment and architectural standards (associated with Java)
2. Ontology, knowledge representation and business modelling standards
3. Current e-business developments

Additional subject areas after initial periods:

1. Programming environment and architectural research
2. Ontology, knowledge representation and business modelling research
3. Scientific, economic social and cultural developments within social and scientific complexity research
4. Legal and practice directives (coming from the EC and national governments)
5. Computing hardware and software developments (such as super chip developments, pervasive computing)

Market Watch sources

We distinguish between primary and secondary sources, in many cases the primary sources being accessed via secondary sources.

Secondary sources:

A number of consortium partners, such as IBM, have permanent representation on most important information technology standards bodies. While the market watch will monitor the primary sources such as the standards bodies websites, internal representation raises the available knowledge of future directions for standards to the consortium and provides a suitable channel to provide input into the standards.

A summary of secondary sources are:

1. Internal partners such as IBM, SUN, Intel.
2. Publishers of quality research and business journals
3. Secondary sources from the Internet.

Primary Sources

Access to primary sources is essential to the success of market watch. A taxonomy of primary sources can include the subject matter of the source, specific standards or standards body responsible for the standards maintenance (because some standards cluster together (such as MOF and MDA) and some standards (such as ebXML) use other standards as a basis (XML in this case). In some cases, standards and research have generated competitive alternatives (XML Topic Maps vs. RDF, and intentional vs. extensional semantics for ontologies are example) that need comparative evaluation.

The following primary sources will be initially used (although further sources will be identified from readership feedback)¹⁰

1. Open source group
2. OMG (Object Management Group)
3. OASIS
4. W3C (World Wide Web Consortium)
5. OMA (Open Mobile Alliance)
6. JCP (for Java standards)
7. XML
8. XMI
9. ebXML (specific areas such as CPP/A (Collaboration Profile and Agreement) and ebXML MS etc.)
10. MOF
11. UML
12. BSBR (Business Semantics of Business Data)
13. BPD 1.0 (Business Process Definition Model)
14. OMG Web Services Software Architecture
15. Web Services such as WSDM, WSDL etc.
16. XKMS (XML Key Management Services)
17. SOAP
18. UDDI
19. WS-Semantics
20. RDF, OWL, OIL, DAML, DAML/OIL
21. BML Languages (which will include ebXML)
22. A number of Java standards through JCP organisation (details to be confirmed with computing group and IBM/SUN)

The Observatory

As indicated in the introduction, Market Watch is an observatory looking into current and future trends in information technology standards and e-business developments (expanding later to other areas of research as required by the project).

Even within the restriction of standards and e-business developments a broad range of expertise is required in comprehending the content and implications of standards and research results.

¹⁰ This list does not conform to any taxonomy, hence we combine individual standards and standards organisations here without distinction

For this reason, Market Watch will call upon the expertise of internal and external editors to provide expert opinion and advice relating to the areas we are monitoring.

The establishment of a community of observers will take time as the core Market Watch team incorporate and involve other volunteers to take on the observational and editorial roles. Our main sources for the observatory community are the DBE participants themselves (covering expertise from software architectures, technology and business and ontologies/business modelling languages) other employees from consortium companies (especially in the case of IBM, SUN and Intel) and external organisations such as publishers.

The community will meet via virtual meetings once every two months to discuss the current situation within the area of standards or research being observed by the editors. These meetings will form a basis for delivering important results to the DBE community as well as passing new requirements from the DBE community into the watch¹¹

Publication taxonomy¹²

As noted above, the publication taxonomy will include, amongst others, the following content types, according to the relevant Market Watch issue:

- News (DBE and from external sources)
- Events (DBE and from external sources)
- Technology (DBE and from external sources)
- Emerging Standards (DBE, and from external – also IBM – sources)
- ICT Adoption for SMEs (examples: SMEs and e-business, Understanding ICT Policy, Impact of ICT on the Productivity and Competitiveness of SMEs, etc.)
- Directives (EU and other)
- Case studies
- Etc¹³.

Permissions

When producing or abstracting content from external sources, it is good business practice (and sometimes, where copyright is involved, necessary practice) to obtain permissions to publish or link to content – editor will ensure that relevant permissions are obtained before publication of Market Watch issues.

¹¹ Although a faster turn-around of information requests will be possible via email and the Intranet. The virtual meetings has discussion as a core goal.

¹² It should be noted that a publication taxonomy is not the same as a content taxonomy (presented below). The publication taxonomy is designed to make it easier for readers to find information.

¹³ A task is included in the project plan to finalize the publication taxonomy.

Draft Permission and Contribution Letters

The following section contains drafts of letters/e-mails required to obtain permissions and request editorial help.

Draft Permission to publish abstract / link letter

Dear [personalize],

The Digital Business Ecosystem Project is an Integrated Project presented under the first call of the EU Sixth Framework Programme.

AIM of DBE project

The main aim of the Digital Business Ecosystem (DBE) project is to provide radically improved adoption of Information and Communication technologies by European SMEs and through this to foster local economic development. SMEs make up 99% of European businesses, by number, and 50% of the European GNP, so they represent a large proportion of the European economy. As a rule they do not have enough time, money and skills to invest in learning how to use new media and new technologies, and they are often in a situation where investment done in old proprietary technologies blocks their ability to embrace innovation.

The DBE idea is to generate, through the DBE, software that can adapt to the SMEs rather than the other way around. In this manner the project aims to provide SMEs with a new cost-effective technology paradigm to achieve business results through the innovative use of ICTs, by reducing their time to market and facilitating the enlargement of their business networks.

DBE Market Watch

DBE Market Watch is a deliverable in the DBE project. The main objective of Market Watch is to create an observatory designed to monitor, observe, and raise awareness of the emerging technologies and standards used within and outside of this project, and to provide a digest of these technologies and standards as they impact on, and are implemented in, the DBE project.

Market Watch is primarily aimed at keeping the project partners and European Commission abreast of technology and standards developments and activities. Market Watch will also be adapted toward external publication via the project public website (www.digital-ecosystem.org).

We request your Market Watch participation

As an expert in Open Source technology and standards, we are contacting you to gain from your expertise and to kindly request your permission to publish an abstract in our Market

Watch issues (printed version), and to provide links from your website to the relevant content on the DBE project website.

We are, of course, very interested in your continuous participation to Market Watch throughout the DBE project.

Please contact the DBE Market Watch Editorial Team: Chris Catrie and Peter Stanbridge
DBE Project

Tel & Fax: +32 (0)2 416 5862

e-mail: chris.catrie@be.ibm.com

e-mail: home_stanbridge@btopenworld.com

Draft letter requesting contributions (content) to Market Watch issues

Dear [personalize],

The Digital Business Ecosystem Project is an Integrated Project presented under the first call of the EU Sixth Framework Programme.

AIM of DBE project

The main aim of the Digital Business Ecosystem (DBE) project is to provide radically improved adoption of Information and Communication technologies by European SMEs and through this to foster local economic development. SMEs make up 99% of European businesses, by number, and 50% of the European GNP, so they represent a large proportion of the European economy. As a rule they do not have enough time, money and skills to invest in learning how to use new media and new technologies, and they are often in a situation where investment done in old proprietary technologies blocks their ability to embrace innovation.

The DBE idea is to generate, through the DBE, software that can adapt to the SMEs rather than the other way around. In this manner the project aims to provide SMEs with a new cost-effective technology paradigm to achieve business results through the innovative use of ICTs, by reducing their time to market and facilitating the enlargement of their business networks.

DBE Market Watch

DBE Market Watch is a deliverable in the DBE project. The main objective of Market Watch is to create an observatory designed to monitor, observe, and raise awareness of the emerging technologies and standards used within and outside of this project, and to provide a digest of these technologies and standards as they impact on, and are implemented in, the DBE project.

The Market Watch is primarily aimed at keeping the project partners and European Commission abreast of technology and standards developments and activities. Market Watch will also be adapted toward external publication via the project public website (www.digital-ecosystem.org).

We request your Market Watch contributions

As an expert in technologies and standards, we are contacting you to gain from your expertise and to kindly request your contributions to be published in the Market Watch issues (printed version and via the project website), and when available, to provide links from your website to the relevant content in Market Watch on the DBE project website. In our next issue, which is due by [date], we would like to incorporate your contribution.

We are, of course, very interested in your continuous contribution and participation to Market Watch throughout the DBE project.

DBE Project (Contract n° 507953)

Please contact the DBE Market Watch Editorial Team: Chris Catrie and Peter Stanbridge
DBE Project

Tel & Fax: +32 (0)2 416 5862

e-mail: chris.catrie@be.ibm.com

e-mail: home_stanbridge@btopenworld.com

Content Model and Taxonomy

This section is an outline of the basic Market Watch content model. The content model has two aims :

- To aid information retrieval and content classification.
- To provide a descriptive model to guide the areas that will be covered by the watch.

We describe the model and the taxonomy in this section. The model proposed for the Market Watch is a simple tagged based system, and while details will be agreed during the early phases of the implementation, the following tags are identified as potentially useful.

Tag	Description	Source	Qualifiers	Multi Value
Title	The name given to the content	Dublin Core		
Creator	Person/organisation responsible for making the content	Dublin Core		Yes
Subject	The topic of the content	Dublin Core	Picked from a list of values	Yes
Description	An abstract of the content	Dublin Core		
Publisher	The company or person who has made the content available to the project	Dublin Core		Yes
Contributor	Name of the person who has provided any editorial changes and abstract etc.	Dublin Core		Yes
Type	The content type of the content	Dublin Core	Picked from a list, and will include values such as Directive, Standard, Result, News, Event	Yes
Audience	The name of the workstream the content is most applicable to	Dublin Core	Picked from the definitive list of workstreams.	Yes
Location	The location the content is most	DBE	Picked from a definitive list of DBE	Yes

	applicable to		participating countries (or maybe, all countries)	
Sector	The sector the content is most applicable to	DBE	Picked from a list	Yes

TAXONOMY

Taxonomy / Subject matter

The taxonomy was developed based on observation of different kinds of sources available to different audiences, such as academics and managers. It is divided into five topics (1st level), i.e. sectors, ICT-Trends; ICT-Strategy, ICT-Technology, and ICT-Adoption (**Error! Reference source not found.**). Each of these topics is divided into other sub-topics (2nd level) that are relevant to DBE participants and extern audience (managers). It will introduced below a short explanation about DBE Market Watch topics and sub-topics (1st and 2nd levels):

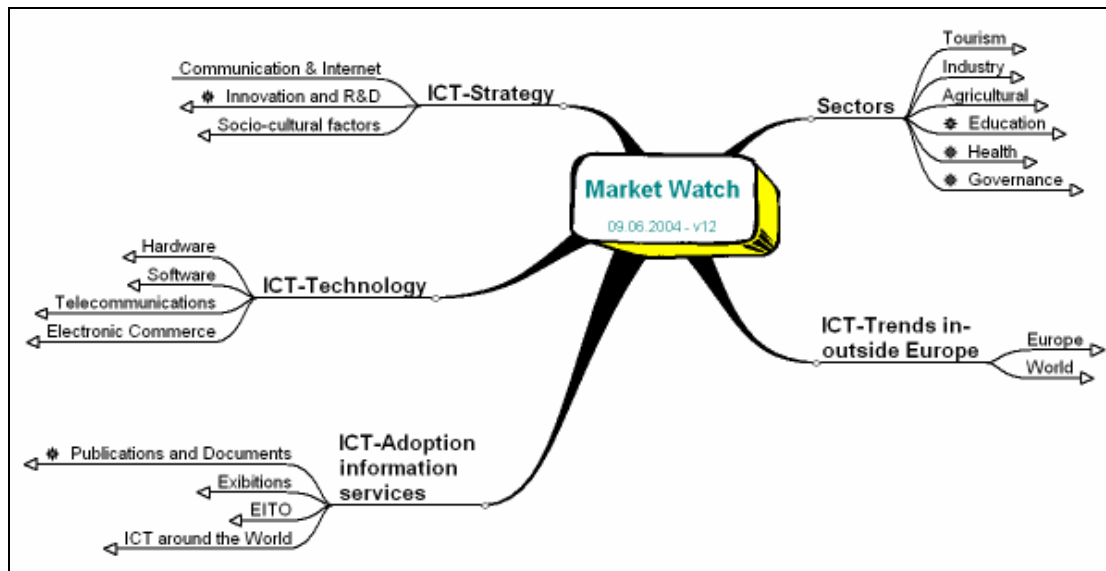


Figure 2 - : Market watch - 1st and 2nd levels

Sectors

The main objective of this topic is to give to our audience compacted and selected information about different ICT aspects from diverse branches. The target audience are managers; or SMEs managers, who are interested to know about ICT news on their business area. They will get information of diverse ICT projects, implementation or development that can help them to improve their own business.

This topic is divided into sub-topics, which might include not only the DBE opportunity spaces (tourism, manufacturing industry), but also future DBE opportunity spaces and current active sectors. The articles will show ICT experience from EU and non-EU members, i.e. an article will be selected if it brings benefits, hints or experiences in ICT adoption.

ICT-Trends

The main objective here is to select European and non-European information (articles). Managers and academics are both target audiences of this topic

Managers can get informed about the ICT-trends, official on-going and foreseen investments and also about academic researches. It can help them making decisions about their own future investments¹⁴ or future partnerships¹⁵. Academics researchers can read about official investments and ICT tendencies of other countries. It can help them getting into contact with new and on-going researches or case studies from other countries¹⁶; it can also generate future cross-country cooperation.

ICT-Strategy

The main objective of this topic is to show strategies that concern the ICT adoption. Communication and Internet, innovation and R&D, and social-cultural factors are important subjects to be presented here on this section. The target audience is academics and managers, who want to know about the most popular and the newest strategies to implement and manage ICT projects. Socio-cultural factors is another relevant theme to this topic, because more and more European and non-European companies and research centres are working closer together.

ICT-Technology

The main objective of this topic is to give a summarised version of the state-of-the-art and the new of ICT technologies, such as hardware, software, telecommunication, and electronic commerce (B2B). Here, managers would be able to get information about the newest technologies on an understandable manner (language). The most common and the new software and methods to B2B will be available to managers, who want to get the hints about this field. Academics can get information of researches from other institutes and universities; it can also support the creation of new cross-nation research groups.

ICT-Adoption information services

The main objective of this topic is to give an overview of diverse activities related to ICT adoption in European and non-European countries, such as exhibitions, conferences, publications and documentation. Managers and academics could program their foreseen participation in these activities helping the creation of new and stronger network of SMEs, academic institutes and universities.

¹⁴ The ICT market in Italy: figures from 2002 and prospects

¹⁵ The ICT environment in Bulgaria; The Greek strategy and the role of GRNET

¹⁶ Case studies of adoption and implementation of ICT in New Zealand