SIXTH FRAMEWORK PROGRAMME

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NETWORKED AUDIO VISUAL SYSTEMS AND HOME PLATFORMS

INTEGRATED PROJECT

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Criteria for success of the CITIZEN MEDIA project

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Abstract (for dissemination)	This deliverable is to be read in conjunction with Annex 1 – description of work. Inside Annex 1- description of work – the aspirations, purpose, challenge and vision of the CITIZEN MEDIA project has been defined. Moreover for each working package, the objectives, results at the end of the project, technical activities and innovation has been described including a project plan with deliverables, milestones and work package description for the first 18 months of the project. This deliverable defines the success criteria and risk register for each activity.

DOCUMENT HISTORY

Version	Comments and actions	Status
V0.1	Creation of the document, table of contents, definition of scope and approach	Completed
V0.2	First version prepared for Turin meeting	Completed

V0.3	Final version for release, comment of WP leaders incorporated	Completed
V0.4	Version distributed towards consortium for final approval	Completed

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TERMINOLOGY & ABBREVIATIONS

To assure coherent terminology and abbreviations across all documents inside the project, the specific terminology and abbreviations for this deliverable has also been aggregated into an internal report called CITIZEN MEDIA Terminology and Abbreviations available on the internal project website (www.ist-citizenmedia.org).

1 INTRODUCTION SUCCESS CRITERIA

1.1 Relation to Annex 1 – Description of work

A widely adopted technique to create effective and meaningful objectives and goals for a project is to make them SMART. This acronym stands for Specific (concrete, detailed, well defined), Measurable (numbers, quantity, comparison), Achievable (feasible, actionable), Realistic (considering resources) and Time-Bound (a defined time line).

For each project task, the objectives, results at the end of the project, technical activities and innovation are described in Annex 1. To avoid duplication with Annex 1, we will define how to access the project outcome, what are parameters to measure the outcome of the project and when will we have obtained our research objectives. When possible, we will define 3 different levels of success criteria for which we believe the project outcome has failed, succeeded or has been outstanding.

The success criteria will need to be realistic within budget foreseen inside the project. CITIZEN MEDIA involves an average of 42 full time equivalents per year of which 36,6 RTD & Innovation activities, 3,1 demonstration activities, 0,4 training activities and 1,6 management activities. These resources are to be shared by 16 different organizations.

The project duration is 30 months. The timeline of the project is build around two phases – a first phase of 18 months and a second phase of 12 months. The current release and future releases of Annex 1 – Description of work – will describe the deliverables, milestones and activities for 18 months.

1.2 Outcome of the project

The nature of the project is a research project. The outcome of a research project will generate knowledge that advances the state in the areas set by the call text [1]. Knowledge is a difficult parameter to measure directly. Indirectly the knowledge can easily be measured by number of patents, disseminations, presentations, etc.

The user-centric approach in the project makes it even more difficult to precisely define what the outcome will be at the end of the project. As this moment we are unaware what the input of the user will be, what his requirements are, how the user evaluates the work, etc. since this is part of the research performed in the project. The feedback on the user will for a great extent steer the direction of the project itself, this in contradiction to many existing research projects focused on a single concept or technology performing user evaluation once the development is completed.

The outcome of research can be positive or negative. For example a potential conclusion for the project could be that there is no viable business model applicable for the target applications envisaged in the project due to legal or regulatory restrictions. Although the result of research work is perceived negative, it is to be considered as a success as the work has generated clear and well-defined answer and conclusion regarding the business perspectives. To that aim the success criteria will be defined as testable statements of research objectives.

Our project focuses on enabling non-professional users to co-create networked applications and experiences based on their user-generated content. In other words applications where the user-generated media from a citizen has little relevance, but were the added value originates from contributions from multiple citizen in a community. The innovation originates from creating of user-generated A/V contributions appealing CITIZEN MEDIA applications that will stimulate other members in a community to record and publish their user-generated content for the application. The technological challenge lies in taking away the barriers for

non-professional users to handle content and in defining the CITIZEN MEDIA open reference architecture covering different stakeholders for delivering the CITIZEN MEDIA applications.

The project is successful if at the end we understand what drives the user to participate and deliver his user-generated content, what are the technologies, tools and terminals he needs for this, who are the stakeholders to offer such an application and what are the legal and regulatory restrictions to deploy such applications. From technological point the project will empower the user with new tools to edit, publish, visualize, manipulate, etc his own user-generated content in new ways to move from a passive content consumer to an active content contributor.

The project will generate diverse results ranging from applications, services, tools, infrastructure, technical components, reports, communities and architectures. The reports will cover studies on user requirements, user context, social requirements, co-design, user acceptance, user evaluation, business modelling, end-to-end infrastructure, etc. Technical development is validated by integrating all technical components into an end-to-end open reference architecture over real network infrastructures. User validation will range from user testing in a controlled lab environment to deployment of applications in different European testbeds. The maturity of the results will range from feasibility studies, visions, functional and non-functional prototypes, proof-of-concepts, etc. towards robust, stable and scalable solutions.

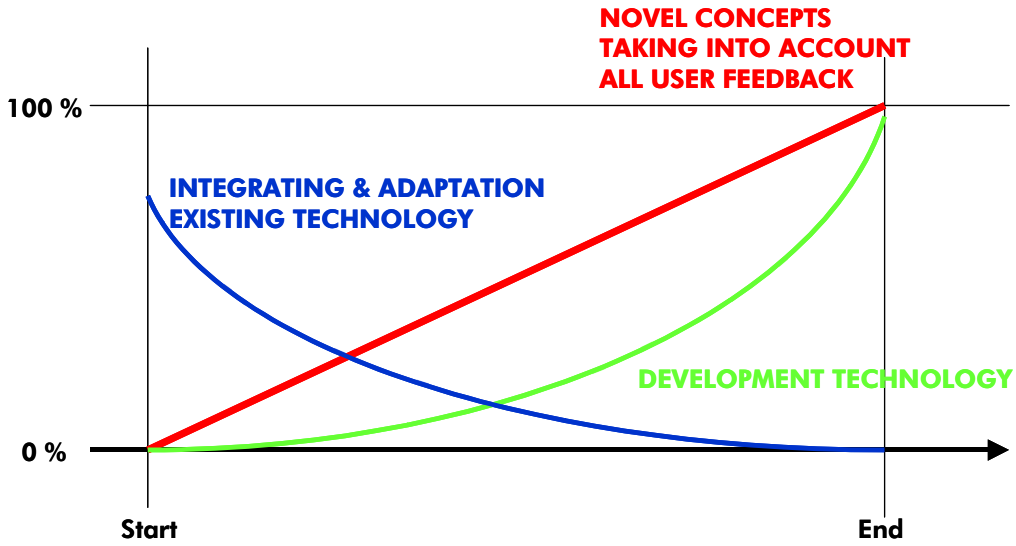

Figure 1: Availability of technology and user requirements

In Annex 1 a clear strategy has been defined not to wait until the development has been completed to involve the user in the project. Hence many activities start in parallel inside the project and will continue till the end. For example the applications will be built on basis of assumptions about the user while the user research is not completed.

Before we define the success criteria we will position the outcome of the work along the time axis of the project. In Figure 1 the availability of technology and our vision on the end-user is displayed.

At the start of the project, the work is mainly based on existing and available technology for the simple reason that no other technology is available. As the project continues, technology will be developed inside the project and gradually become available. However since development of technology is time consuming, this technology will only fully be available towards the end of the project. This technology will be integrated in the testbeds if it is ready in time and if it is sufficiently stable and robust.

Hence there is a conflict in timing between the availability of new technology at the end of the project versus the need for new technology at the start of the project for building innovative CITIZEN MEDIA applications inside the testbeds (Cologne, Engerwitzdorf and Oslo). On the other hand the lessons learned from the testbeds will prevent developing technology without any clear purpose.

Likewise the awareness of the user needs will gradually grow as the project proceeds. Hence there is a conflict in timing between the complete vision of the user needs and the definition and development of the first CITIZEN MEDIA applications early in the project. On the other hand the lessons learned from the user evaluation during the project will assure us that the concepts at the end of the project are valuable.

At the end of the project the results can be classified into 3 groups depending on the maturity of the results and when the results could be exploited. At first activities around the user evaluation of the CITIZEN MEDIA applications on the testbeds, secondly around the realization of the end-to-end CITIZEN MEDIA open reference architecture with novel tools and features for the user, and finally around non-functional CITIZEN MEDIA application prototypes, reports and studies on the vision. These activities are performed in parallel during the project execution.

1.3 Success criteria of a research project

1.3.1 Different baselines for success criteria

From above it is clear that the project will not deliver a single integrated result at the end of the project. The end-to-end architecture developed and validated inside the project – so-called CITIZEN MEDIA open reference architecture – will be developed in parallel with the different CITIZEN MEDIA applications on the different testbeds. Hence the success criteria will be different for the CITIZEN MEDIA open reference architecture and the CITIZEN MEDIA applications.

In our project the advancement of the state-of-the art will lead to innovative concepts for co-creation based on user-generated content depending on the maturity of the technology. Hence the success criteria will differ if they are based on current state-of-the art technology, on innovative technology developed during the execution of the project and / or on technology that needs to be developed after the project.

Our approach on defining the success criteria is inspired on the work of Web Accessibility Initiative in W3C that develops strategies, guidelines, and resources to help make the Web accessible to people with disabilities. In Web Content Accessibility Guidelines 2.0 they have defined principles, guidelines, and success criteria for making Web-based information and applications accessible where different success criteria have been for different set of technologies [2].

Level 1 success criteria based on state-of-the art technology

- Can reasonably be applied to all commercially available terminals today, relies on existing and mature technology & tools.
- Can be used for user evaluation on a testbed for example in a city with real hostile users

Level 2 success criteria based on technology developed during the execution of the project

- Can not necessarily be applied to all existing terminals today, depends on innovative technology developed inside the project, that is not sufficiently mature to be subjected to user testing.
- Can be used for user evaluation on a testbed with friendly users,

Level 3 success criteria based on technological components still to be developed after the project

- Can be used for user evaluation inside a controlled lab environment, but the proof-of-concepts are non-functional demonstrators where core technical components are simulated

Each success criteria level is linked to multiple tasks in the project detailed further in this document. The outcomes of some tasks are input for other tasks. Hence they do not appear in the tables below.

1.3.2 Level 1 – Success criteria

This applies to all activities around the CITIZEN MEDIA testbeds with hostile users. To involve and validate the user participation in the co-creation process based on their user-generated content, this can only be performed inside a real or virtual community in their natural setting. The outcome will depend heavily on the social bonds that exist between people inside the targeted communities of the testbeds. Such an approach cannot be setup or simulated inside a controlled lab environment.

The initial work consists of capturing user requirements by deploying CITIZEN MEDIA applications very early in the project. At this moment the knowledge about the end-user is limited and the initial development will mainly rely on available technology. Newly developed technology inside the project can be integrated in the testbed on the condition that it is good enough for hostile user testing. To avoid that users evaluate the technical implementation instead of the user experience, the technology must be very stable and robust like for a commercial release of a product. This makes prototypes or newly developed technology mainly suitable for testing inside a controlled lab environment because product development is very resource costly. The latter activities involve often work that does not advances the state-of-the-art and hence does not belong inside a research project.

In conclusion, the testbeds aim at validating the user involvement in CITIZEN MEDIA applications and not at measuring the technological progress in the project. The level 1 success criteria focus on innovation of the CITIZEN MEDIA concepts and the degree of involvement of the users.

The successes per testbed are defined in Task4.3 for the community activity, the user monitoring and the community hosting in the testbeds. In Task5.2 and Task5.3 the success criteria are defined for the user experience and the user acceptance per CITIZEN MEDIA applications. Nevertheless the activity around one of the testbeds can fail for various reasons.

- **Minimum outcome:** If 1 out of 3 testbeds pass the success criteria for a testbed
- **Satisfactory outcome:** If 2 out of 3 testbeds pass the success criteria for a testbed
- **Outstanding outcome:** If 3 out of 3 testbeds pass the success criteria for a testbed

The activities around the testbeds are of course not independent from the other project activities.

1.3.3 Level 2 – Success criteria

This applies to all activities around the CITIZEN MEDIA open reference architecture. The end-to-end systems involves design, development, validation, integration, and feasibility of new capabilities, tools and technology during the execution of the project to engage non-professionals in the co-creation based on his user-generated content.

As can be observed in Figure 1, these results will be available more towards the end of the project. Only at that moment the time consuming development of the technological prototypes of components will be ready to build, integrate and validate the CITIZEN MEDIA

open reference architecture over multiple access network infrastructures utilizing multiple terminals. The functionality and features of the CITIZEN MEDIA open reference architecture will be demonstrated with use cases (and not complete applications). The software developments performed during the project execution will focus on A/V content handling and visualization across different terminals for a non-professional user. It is clear that budget and resources will be spent as much as possible on existing solutions unless they are not suited for the purposes of the project. The research and development is focused on application specific components for non-professional users handling A/V content. Hence there will be no focus on underlying network elements, home network infrastructure, CPE hardware and operating systems, tools for professional users, etc. Nevertheless the complete architecture will be specified at the end of the project.

In conclusion, the CITIZEN MEDIA open reference architecture aims at validating the technological progress of the project and not measuring the user involvement. The level 2 success criteria focus on the innovation and demonstration of feasibility of the technological components and new features and capabilities for the non-professional user for handling A/V content.

The level 2 success criteria are linked to tasks related to CITIZEN MEDIA open reference architecture. This is on Task1.4 for a complete specification for the open reference architecture and Task4.1 for integrating the services framework and technical components over the real network infrastructure. The functionality of the components is determined by success criteria for Task2.1 and Task2.2. The work will **fail** if the CITIZEN MEDIA open reference architecture does not significantly advance the state-of-the art in technology.

The activities around the CITIZEN MEDIA open reference architecture are of course not independent from the other project activities. The aim is to support the different testbeds with a maximum of technological components developed inside the project to make the CITIZEN MEDIA applications of the testbeds as appealing as possible. For this reason the development performed for the CITIZEN MEDIA open reference architecture should be tuned towards the needs of the users in the testbeds as much as possible. Hence a measure for assessing the success is the number of technological components re-used in the testbeds:

- **Minimum outcome:** 2 components
- **Satisfactory outcome:** 4 components
- **Outstanding outcome:** 6 components

It is clear that not all developments for the CITIZEN MEDIA open reference architecture can be integrated in a testbed since most of the work is only available towards the end of the project.

1.3.4 Level 3 – Success criteria

This applies to all activities in the CITIZEN MEDIA project for which no development is performed during the execution of the project or only become available after the project execution. This involves making studies and building non-functional prototypes that represent the future vision based on the lessons learned in the project.

Only at the end of the project, after different design methodologies involving the user as well as the user feedback from different trials and testbeds, the complete vision of the user needs are available. At that moment the project activities will undoubtedly identify areas, technological components, user requirements that cannot be developed during the remaining project duration due to limited time, limited resources, lack of expertise, etc. Nevertheless non-functional CITIZEN MEDIA application demonstrators will be created that capture all user requirements simulating the missing pieces of technology. But these can only be tested in a controlled lab environment. This will be supported with studies on the future vision of the applications.

In conclusion, the CITIZEN MEDIA prototypes and reports aim at the exploitation of the results after the project. The level 3 success criteria focus on the vision of how future users will get involved in the co-creation process by business modelling, regulatory issues, user requirements etc.

The work will **fail** if no clear and precise answers can be defined on the added value of CITIZEN MEDIA applications and the future vision for exploitation, viability, roadmap, etc.

The level 3 success criteria for business modelling and roadmaps of CITIZEN MEDIA applications are defined in Task6.2 and Task6.3, the future vision of CITIZEN MEDIA applications in Task6.4, for design guidelines in Task5.3 for business modelling and roadmaps in WP1, WP3 and WP6.

The level 3 success criteria for context, user and social requirements are described in Task1.1, Task1.2 and Task1.3 whereas the CITIZEN MEDIA application concepts are defined in Task3.2.

This work is not performed independently from the other project activities. To assess the effectiveness of the work in the project, the percentage of results from WP1 and WP6 taken into account on the testbeds and in the CITIZEN MEDIA open reference architecture can be evaluated (so-called downstream utility).

- **Minimum outcome:** 10 % of the work
- **Satisfactory outcome:** 20 % of the work
- **Outstanding outcome:** 30 % of the work

It is clear that not all results can be taken into account by the testbeds since it focuses on exploitation after the project

1.4 Dissemination targets

1.4.1 Number of patents

To estimate the overall number of patents generated by the project a simple reasoning is used based on the composition of the consortium in this clause. This does not exclude that academic partners will also generate patents.

Within private organizations, research engineers are expected to file at least one single patent per year. Because the filing procedure of patents is very costly, the patent departments of these private organizations group different patents into a single patent. In average 3 patents are merged into a single patent or 0,3 patents per year. For the academic partners, the focus is more on scientific papers and less on patents.

For the CITIZEN MEDIA project about 50% of the people inside the project belong to a private organization. This corresponds to 21 full time equivalents per year. It should be noticed that not all knowledge generated by the project - such as application concepts, user evaluation, community hosting and testbed activities - can be protected by patents. WP2 focuses mainly on technical activities and represents 50% of the project. Also a large percentage of the technical activities involve development of software that can not be patented. Hence only 25% of the knowledge generated by the project can be patented.

In conclusion:

- **Minimum outcome:** 5 patents for the full duration - 1 patent per 21 PY activity
- **Satisfactory outcome:** 9 patents for the full duration - 1 patent per 12 PY activity
- **Outstanding outcome:** 13 patents for the full duration - 1 patent per 8 PY activity

Since the lead-time for submitting patents ranges between several months up to a year, the number above indicate patents filed inside the different organisation and not the number of patents published.

1.4.2 Number of refereed scientific papers/books

Unlike number of presentations defined in next section, with scientific papers in this section is meant that a jury outside the project has reviewed the publications.

To estimate the overall number of refereed papers generated by the project a simple reasoning is used based on the composition of the consortium in this clause. This does not exclude that private organisations will also generate refereed papers.

Within universities, researchers are expected to produce one conference paper per year. For a PHD student it is a journal paper at the end of their work. For research engineers inside private organizations this is less an objective.

For the CITIZEN MEDIA project about 50% of the people inside the consortium belong to a university, academia or research institute. This corresponds to 21 full time equivalents per year.

In conclusion:

- **Minimum outcome:** 35 scientific papers for the full duration - 1 paper per 3 PY activity
- **Satisfactory outcome:** 52 scientific papers for the full duration - 1 paper per 2 PY activity
- **Outstanding outcome:** 69 scientific papers for the full duration - 1 paper per 1,5 PY activity

Potentially a book in which the overall vision created about such applications is also within the scope.

Since the lead-time of submissions ranges between several months for international conferences and one year for scientific journals, the number above indicate the scientific papers submitted at the end of the project.

1.4.3 Number of presentations (non-refereed)

Besides the refereed scientific papers / books, and those foreseen and organised by the project office, there are a number of public events like concertation meetings, fairs, trade shows, workshops, etc to disseminate the project outcome. These presentations are additional to the number of scientific papers defined in previous clause.

In conclusion:

- **Minimum outcome:** 35 presentations for the full duration - 1 presentation per 3 PY activity
- **Satisfactory outcome:** 52 presentations for the full duration - 1 presentation per 2 PY activity
- **Outstanding outcome:** 69 presentations for the full duration - 1 presentation per 1,5 PY activity

It is evident that more presentations will be given inside and outside the consortium to achieve the project outcome. For example presentations made during consortium and work package meetings, during internal meeting inside the different project organisations, during face-to-face meetings with testbed users, local governments, suppliers, etc. These presentations are not included in the figures above although they contribute to the dissemination of the project. In this section the focus is on dissemination events setup by organisations outside the consortium.

1.4.4 Standard contributions

Standardisation is a very lengthy process. Contributions are welcomed depending on the timing of the different technical working groups inside different standards bodies. Project partners make standards contributions on behalf of their company since the CITIZEN MEDIA consortium itself is not a member of a standards organisation. When multiple partners are active in the same standards group, a common contribution can be made if it does not conflict with other company interests inside the consortium.

The work performed outside WP2 is not technical like user research, definition and design of concepts, user evaluation, community hosting, business modelling and management by media. For such activities no standards bodies exist to our knowledge. This does not mean that the outcome of the work is not relevant for standards bodies. Hence contributions could be made, but it will be difficult.

In WP2 – the largest working package inside the project representing 50% the project resources- is purely technical. The outcome of the work can be considered for standardisation. To our knowledge, no single standardisation body covers the wide technical activities within the project of WP2. Hence it will be more isolated standards contributions. In annex 1 – some of the potential standards bodies have been presented.

Within WP2 ten different project partners are active. Hence we our **minimum** ambition to make 10 different contributions to different standards organisations during the full duration of the project.

1.4.5 Trainings

Inside Annex 1 a number of internal and external trainings have been scheduled during the execution of the project. Different project partners have scheduled 8 trainings over the full duration of the project. No additional budget has been foreseen on training activities.

1.4.6 Joint dissemination actions

Most of the project partners have a dedicated role inside the project. Hence there is little overlap between the activities of different project partners. For this reason the common activities are limited. In conclusion for the sum of all external dissemination actions being the number of scientific papers, presentations, trainings, standards contributions:

- **Minimum outcome:** 10 % joint dissemination actions
- **Satisfactory outcome:** 20 % joint dissemination actions
- **Outstanding outcome:** 30 % joint dissemination actions

Reports, newsletters, workshops, etc organized by the project office are by default joint between the coordinator and one or more project partners. These do not fall under this goal.

1.4.7 Testbeds

The applications are hosted on three public testbeds with hostile. This is also a form of dissemination activity that gives visibility to project activities. The success criteria for the testbeds have been defined in Task4.3.

1.5 Exploitation of CITIZEN MEDIA results

An integrated project focuses on pre-competitive research activities that are not mature enough for immediate commercial deployment at the end of the project.

Due to the nature of the CITIZEN MEDIA project, not all work is pre-competitive research (see level 1 success criteria). This originates from the end-user involvement in the project. Potentially concepts developed and tested with end-users inside the project may be picked

up immediately or the user communities created inside the project may evolve to other applications.

It is expected that small parts of the project outcome will be transferred towards the business units inside the private organizations for commercial exploitation in different formats. A non-exhaustive list is given below:

- Definition of new application, services, concepts, components, features, etc for defining specification of future products
- Feasibility studies (technology, users, etc.)
- Identification of user needs, desires, willingness to pay, etc.
- Establishment of communities

Industry research firm Gartner Group uses a graph to try and make sense of the maturity of different applications, tools and technologies in any given market. It's called the Gartner Hype Cycle (See Figure 2).

On August 9, 2006 — Gartner, Inc. distributed a press releasing about its 2006 Emerging Technologies Hype Cycle which assesses the maturity, impact and adoption speed of 36 key technologies and trends during the next ten years [3]. This year's hype cycle highlights three major themes that are experiencing significant activity and which include new or heavily hyped technologies, where organisations may be uncertain as to which will have most impact on their business.

Web 2.0 technologies and business models dominate emerging technologies together with Real World Web and Applications Architecture. For Gartner Web 2.0 represents a broad collection of recent trends in Internet technologies and business models. Particular focus has been given to user-created content, lightweight technology, service-based access and shared revenue models.

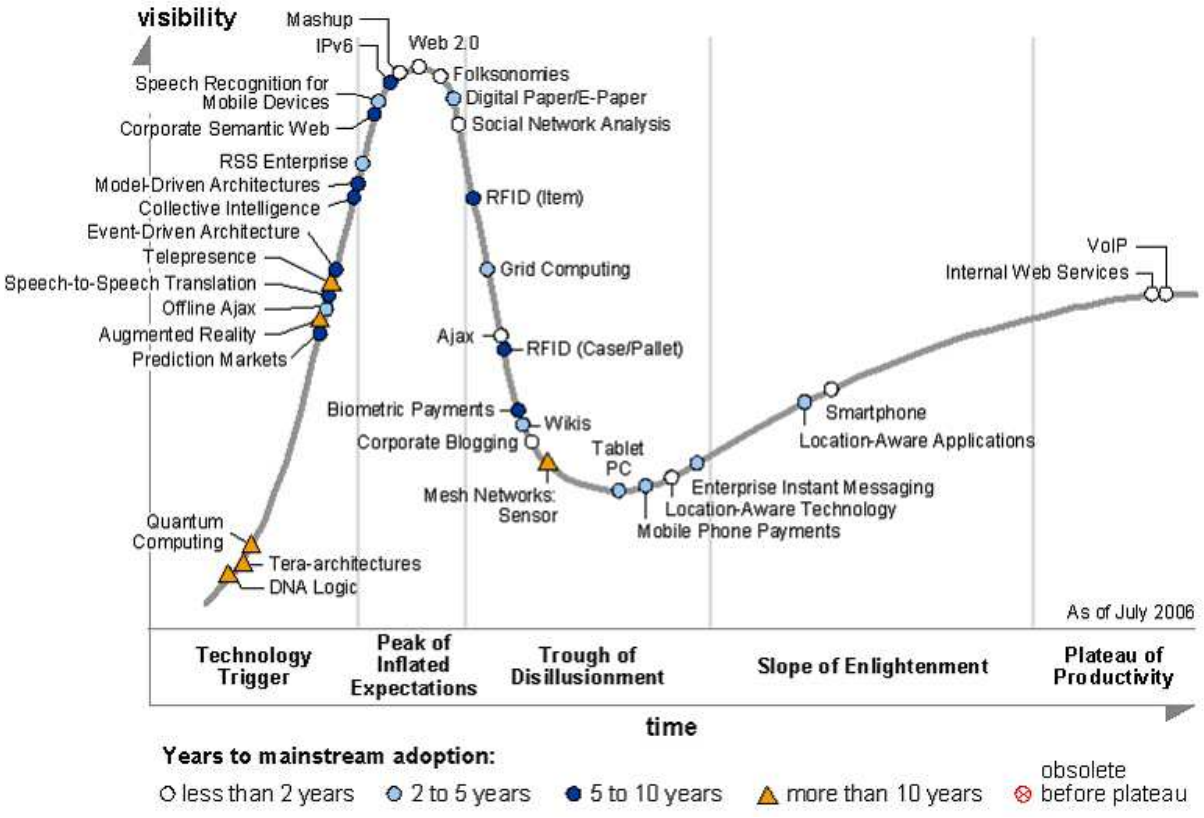

Figure 2: 2006 Emerging Technologies Hype Cycle [4]

There are five distinct categories that occur in the emergence of any new technology:

- Technology trigger: A breakthrough, public demonstration, product launch or other event that generates significant press and industry interest.
- Peak of inflated expectations: a phase of over-enthusiasm and unrealistic projections during which a flurry of publicized activity by technology leaders results in some successes but more failures as the technology is pushed to its limits. The only enterprises making money at this stage are conference organizers and magazine publishers.
- Trough of disillusionment: The point at which the technology becomes unfashionable and the press abandons the topic, because the technology did not live up to its over-inflated expectations.
- Slope of enlightenment: Focused experimentation and solid hard work by an increasingly diverse range of organizations lead to a true understanding of the technology's applicability, risks and benefits. Commercial off-the-shelf methodologies and tools become available to ease the development process.
- Plateau of productivity: The real-world benefits of the technology are demonstrated and accepted. Tools and methodologies are increasingly stable as they enter their second and third generation. The final height of the plateau varies according to whether the technology is broadly applicable or only benefits a niche market.

Web2.0, folksonomies and social networks indicated in Figure 2 are located at the top of the peak of inflated expectations and less than 2 years mainstream adoption.

The CITIZEN MEDIA project looks for exploiting user-generated content in innovative ways, go beyond sharing of content for the content and empower the user to build his own applications with user generated content.

Figure 3: CITIZEN MEDIA application

To do so the project will exploit technologies that are located 5 to 10 years before mainstream adoption. Hence the area of the CITIZEN MEDIA project is more located in the part of the technology trigger of Figure 2.

While the technologies addressed in the project are available today for high skilled professional content creators, distributors, etc., the outcome of the project will be successful

if these technologies become accessible to all users. With accessibility is meant ease of use for everybody and not only for a selected amount of high skilled specialists. For example the focus will be on the terminals of the users such as a PDA or a STB instead of high end workstation. The outcome can be rated depending on the progress the project has made compared to the state of the art. If we do not succeed, the adoption of future CITIZEN MEDIA applications will never happen.

2 SUCCESS CRITERIA PER WP

For easiness of reading we have copied for each task the section regarding the results at the end of the project" from Annex 1 – Description of work. Under these section the success criteria will be defined as described in previous section.

2.1 WP1 Definition of CITIZEN MEDIA applications and architecture

2.1.1 Task1.1 A framework for understanding the user of CITIZEN MEDIA applications

Results at the end of the project

The result of Task1.1 is a description of typical media usage patterns among European Citizens. These results will be structured in a User Types X Nation matrix showing the different media user patterns identified in each country. A further refinement will provide a User Types X User Communities matrix showing typical media usage patterns in different communities within and between countries.

A further analysis will take the demographical, economical and technological infrastructure into account in order to explain the emergence of the different user patterns.

The results will be structured into an outline for "A Theory of Changing Patterns of Media Usage in Modern Society"

The results will feed into Task1.2, Task1.3 and *WP3 Concept and experience design of CITIZEN MEDIA applications* and WP6. Finally, this is crucial knowledge when the testbed applications are defined.

Success criteria

Task1.1 goes in to depth on how citizens in Austria, Germany and Norway, use ICT, by households and by individuals. A representative picture of Austria, Germany and Norway will be achieved by analysing statistical data of present ICT usage in Europe. Such knowledge will offer a better insight to how CITIZEN MEDIA applications should gain market entry, to get a more solid basis on who the target groups may be, and how the applications should be designed to fit different types of users, with different types of background and different types of use.

Assessment objectives	Indicators	Defining success
To make an understandable basis for the CITIZEN MEDIA consortium on what type of media use patterns citizens in Europe have, based on ICT use by individuals (Eurostat). And, to the extent this knowledge will help the project in defining the user groups for the CITIZEN MEDIA applications, and be a basis	The number of applications developed where the knowledge in Task1.1 will be used for the definition of user requirements and in defining user groups.	This objective **fails** when none of the WP's uses this knowledge. The **minimum outcome** implies that some aspects of this knowledge can help for the definition of the user requirements for at least one CITIZEN MEDIA application. **Satisfactory outcome** is that we can develop an

for the definition of the user requirements.		outline of a new theoretical framework on user requirements, and help for the definition of the user requirements in at least two CITIZEN MEDIA applications. **Outstanding outcome** is that we can use this knowledge in to the development of the definition of the user requirements in more than two CITIZEN MEDIA applications. And, in addition develop a complete new theoretical framework on patterns of media use. That the analyses in Task1.1 can be used as a basis for the Business model in WP6
Knowledge about which user groups the CITIZEN MEDIA testbeds will involve, should be based on the statistics on ICT use in Austria, Norway and Germany. This is to provide a starting point after the four first months for the definition of present and future users and communities for the CITIZEN MEDIA applications.	The number of testbeds the project participants will utilize and implement the user information from D1.1.1 the CITIZEN MEDIA applications in the testbeds located in Germany, Austria and Norway.	This objective **fails** when the project and people working with the testbed task not can use the outcome of the data and user groups. The **minimum outcome** implies that some aspects of this knowledge can strengthen the selection of target groups for at least one testbed. **Satisfactory outcome** will be, if these results offer a better insight to how CITIZEN MEDIA applications should gain market entry and can strengthen the selection of target groups for at least 2 testbeds. **Outstanding outcome** is that we can use this knowledge in to a large extent in our selection of target groups in the development of the CITIZEN MEDIA applications in all the testbeds communities.

2.1.2 Task1.2 Context and user requirements of CITIZEN MEDIA applications

Results at the end of the project

- A description of a set of core CITIZEN MEDIA applications identified by their medium composition, user characteristics, user communities and context of use. This will be a great benefit for the scope of CITIZEN MEDIA. The results will be presented as a set of personas and scenarios illustrating future use and contexts for these applications.
- One main result of this task is a set of methods, techniques and tools for requirements capture. This will offer an efficient toolset for a description of different kinds of users' goals, users expected experience, how they currently "work", what they expect to be able to do and how they want to create and share media content in CITIZEN MEDIA applications.
- For each testbed application there will be identified a set of user and usage context requirements.

Success criteria

Assessment objectives	Indicators	Defining success
The objective of this task is to develop personas and scenarios that 1) capture the requirements for future networked media applications in general, and 2) more in particular capture tangible requirements for the testbed applications.	The number of testbeds Applications that the personas and scenarios illustrating future use will be used in.	This objective **fails** when the project can't use the personas or the scenarios in the development of none of the CITIZEN MEDIA testbed applications. The **minimum outcome** implies that the personas and scenarios are used in the development of at least one CITIZEN MEDIA testbed application. **Satisfactory outcome** if is the personas and scenarios are used in the development in at least two CITIZEN MEDIA applications and testbed application. **An outstanding outcome** is that the project can use the personas and scenarios to a large extent in the development of at the three CITIZEN MEDIA testbed applications. .
The applications should be measured as high on both Perceived Ease of Use and Level of perceived Value by	Level of Perceived Ease of Use of aspects implemented in the application related to user	See measures of this criteria in WP5

Users/Usefulness.	requirements that WP1 have suggested (is affected by the user's own experiences of using the application in different contexts of use) Level of Perceived Value by Users/Usefulness of aspects implemented in the application related to requirements that WP1 have suggested (includes rational utility and related to other features of a product which users appreciate and follows the question, what the user wants to achieve.)	
That the requirement toolset for a description of different kinds of users' goals and users expected experience will be appreciated as useful among independent experts.	A toolset that provide new methods, and techniques for capturing user and context requirement for emergent networked media technologies, supporting creation, participation and collaboration.	This objective **fails** if the toolset for user requirements not will be complete or not will be taken in to use after the project. The **minimum outcome** will be a first version of a toolset that will be provided by the website of the CITIZEN MEDIA. **Satisfactory outcome** is the arrangement of two courses/workshop in the use of the toolset with participants from the CITIZEN MEDIA project and external projects. . **An outstanding outcome** is if the toolset is judged as very useful by independent experts will be appreciated as useful among independent experts. Priority of utility should be evaluated as "Very high" on a five point scale from: (5) Very high, (4) high, (3) medium, (2) low and (1) very low.

2.1.3 Task1.3 Social requirements for the CITIZEN MEDIA applications

Results at the end of the project

The expected result of this task is an overview of sensitising concepts regarding social and community behaviour based on desk research and on ethnographic findings from confronting representatives from different user profiles with proxy technologies in their home setting. This will get more knowledge on the social factors impact on choices of content creation and content sharing as well as the appliances for CITIZEN MEDIA applications. For this we can also build on results from Task1.1 and Task1.2.

The results Task1.3 will feed into *WP4 Validation of CITIZEN MEDIA applications and architecture* and Task1.4. In interaction with *WP3 Concept and experience design of CITIZEN MEDIA applications*, it will also confront the user concepts with these results of social sensing through proxy technology assessment. In addition these concepts will help in guiding and framing the development of applications in WP3. Finally the output of this task will serve as direct input for WP5, more in particular for a part of the evaluation of user acceptance in Task5.3.

Success criteria

Assessment objectives	Indicators	Defining success
The composition of an overview (long list) of current devices and applications that incorporate characteristics that are (to a particular degree) similar to the characteristics of the CITIZEN MEDIA applications to be developed, finally leading to a short list of adequate Proxy Technologies. The prerequisite is that a clear overview of the relevant characteristics and functionalities of the CITIZEN MEDIA applications is available on beforehand.	The degree that the shortlist of Proxy Technologies relates to the future use and contexts for the CITIZEN MEDIA applications to be developed. .	In order to assess the success at least three CITIZEN MEDIA applications will need to be developed. This objective **fails** if none of the Proxy Technologies in the shortlist relate to future use and contexts for the CITIZEN MEDIA applications. The **minimum outcome** implies that the selected Proxy Technologies relate to the use and context of at least one CITIZEN MEDIA application. **Satisfactory outcome** implies that the selected Proxy Technologies relate to the use and context of at least two CITIZEN MEDIA applications. **An outstanding outcome** is when the selected Proxy Technologies are highly related to the use and context of at least three CITIZEN MEDIA applications.
The identification of social factors that influence the	Besides desk research, these social factors and	In order to assess the success at least three

choices of content creation and content sharing as well as related social guidelines for design of the appliances for CITIZEN MEDIA applications.	related guidelines are based on how people experience and use current devices and applications for content creation and sharing, that are comparable to the CITIZEN MEDIA applications to be developed (Proxy Technologies).	CITIZEN MEDIA applications will need to be developed. This objective **fails** if the project cannot use the social factors and related guidelines (based on the Proxy Technology Assessment findings) in the design of the CITIZEN MEDIA applications. The **minimum outcome** implies that the social factors and related guidelines will be used in the development of at least one CITIZEN MEDIA application. **Satisfactory outcome** implies that the social factors and related guidelines will be used in the development of at least two CITIZEN MEDIA applications. **An outstanding outcome** is that people in WP2 and Task1.4 or others inside the project can use the social factors and related guidelines in the development of at least three CITIZEN MEDIA applications.

2.1.4 Task1.4 CITIZEN MEDIA Open Reference Architecture

Results at the end of the project

- Consensus between project partners about an open and future proof infrastructure
- Define of the CITIZEN MEDIA Open Reference Architecture covering the core blocks and / or technologies supporting multiple CITIZEN MEDIA applications accessible from various nomadic terminals.
- Define of open non-proprietary interfaces CITIZEN MEDIA Open Reference Architecture to allow third parties to develop CITIZEN MEDIA applications on top of the infrastructure. These interfaces should also expose all technology to build out advanced and application features. This activity will also result in the metadata model definition.
- Define of the architecture of the common project testbed environments, feeding the results into *WP4 Validation of CITIZEN MEDIA applications and architecture*.

Success criteria

The CITIZEN MEDIA architecture addresses the domain of multimedia personal communication and content distribution. The objective is to remove the obstacles to end-to-end digital communications and content exchange, from content/service providers to customers and between persons, or inside a community, over shared network access (wired or wireless broadband but also mobile telephony) and home network infrastructures at the same time.

Even if there is a myriad of CITIZEN MEDIA applications, they require a common understanding, the opening and sharing of infrastructures, devices, middleware and interfaces, that is based on a minimum set of standards and common reference architectures.

The first criterion of success of this task is that all application use cases and scenarios, infrastructure elements and technology components in the project work over this Open Reference Architecture. This criterion will be measure during the testbeds implementation.

The second is on the possible future deployment of open, shared, seamless and non-discriminatory service infrastructures, encompassing public access and private home networks as well as interoperable terminals and middleware, that are expected to enable such a myriad of independent new services and applications fully open to customer choice and communities imagination. This criterion will be achieved by using as far as possible existing standards for all the key interfaces of the architecture and by modifying the existing standards for our specificities.

The last criterion of success is on the dissemination of our metadata model. If our metadata model is easily available (not necessarily standardised) to all the stakeholders - in particular to the communities – and if this model is open enough to be extendible by anyone who wants to add something then we have succeeded.

2.1.5 Task1.5 Local community requirements for testbeds

Results at the end of the project

Task1.5 results in a socio-economic “calendar” for local testbeds. This tool visualizes the user (groups) environment on a timeline allowing the project participants to relate their activities to the testbed environment taking the socio-economic dynamics of their target groups into account.

A generic version of the “calendar” will be one of the tools in the toolset of Task1.2

Success criteria

Assessment objectives	Indicators	Defining success
The tool visualizes the user (groups) environment on a timeline allowing the project participants to relate their activities to the testbed environment taking the socio-economic dynamics of their target groups into account. A generic version of the "calendar" will be one of the tools in the toolset of Task1.2	The number of testbeds that will apply the concept 1) In what degree it will reveal relevant insights into the mechanisms of social interaction inside selected communities	This objective **fails** when the different testbeds do not exploit the concept or if the information given by the testbeds Socio-Economic Calendar does not reveal relevant insights into dynamics of social interaction inside the local community. The **minimum outcome is if** one testbed applies the concept and creates an own calendar that reveals relevant insights into the dynamics of social interaction inside the local community. **Satisfactory outcome** is if the concept is applied in two testbeds and the calendars reveal relevant insights into the dynamics of social interaction inside the local communities. **An outstanding outcome** is if the concept is applied in all testbeds, delivers valuable results and new insights through the comparison of the different dynamics of social interacion in the three testbeds.

2.2 WP2 Design of CITIZEN MEDIA infrastructure

2.2.1 Task2.1 Design of the CITIZEN MEDIA service framework

Results at the end of the project

The main outcome of the work will be the development of this CITIZEN MEDIA service framework and to integrate it into the reference architecture (Task4.1). To that aim the software platform need to be developed

Trans-coding feature will able to handle the following input formats (WAV, AVI, ASF, WMV, MP3, MP4, 3GP) and media streams delivered from real-time processing encoder. It will

support the following audio formats (AAC-LC, HE-AAC, AMR-NB, Windows Media Audio, MP3) and video formats (MPEG-4 Video, H263, H264, Windows Media Video). It will support the following output formats (MP4, 3GP, AVI, WMV) and will also deliver media streamed. Feature for media transformation tools such as video resizing and cropping, audio re-sampling, splitter, temporal selection and multi-channels to spatialized audio converter will be designed in this task.

Network and terminal adaptation delivery feature guarantee A/V multimedia content consumption from each terminal and its network and geographical location. When connected, a user will automatically have access to his/her content in an optimal way: they will receive the content with a layout adapted to the device and streamed with a bit rate adapted to the network state.

Referenced content feature allow a user to insert his content and references it easily. Content can be streamed, even from the user terminal. This feature is available through a rich media content creation interface: a template based system allows creating scenes mixing different types of media (text, audio, images, video) and links between these scenes. Once filled these templates can be used to generate different rich media scenes targeting different devices, in term of screen size and connected network. This is achieved by using distinct layouts for each device class. This optimisation is also done at the media level to adapt their size or their format to the targeted device (e.g. images will be resized for small devices). This template based system must be kept hidden for the end user. A GUI will allow composing the rich media cast without any special knowledge. A Rich Site Summary (RSS) based mechanism will be the core system to reference media on the platform: this mechanism will be a convenient subscription mechanism must allow users to easily retrieve content automatically. Each user shall be able to announce and share his/her content according to various levels (widely delivered or to a small community). Annotation and voting systems enhance MP to classify and organize content.

In addition, the relation with WP3 will conduct to the following activities: analysis of the co-design prototype applications, for identifying functionalities required from the services / applications framework in order to implement them in the testbed.

Delivery of user interfaces running on low power devices (ex. Set Top Box, mobile) in the context of

- Unified networked content guide experience: browsing / searching for commercial, personal and home content based on the proposed multimedia description;
- Collaborative networked publishing experience of personal audio video and / or 3D content editing from an end user device to others devices;

Success criteria

The first aim of service framework is to allow the circulation of user generated contents between various kinds of devices (such as STB, PDA, and PC). As a result of this task, a user in a testbed shall be allowed to upload its own generated content into the network and be able to search and retrieve any kind of content (professional and user generated). This is the first result to have.

This task describes multiple use cases. The aim of these use cases is to demonstrate the ability of the service framework to allow the creation of applications. The second criterion of success is the development of these two use cases and their installation into a testbed.

As the applications designed in WP3 will be developed in WP2, the service framework should have all the basic components needed. The service framework shall offer all the key elements requested by any CITIZEN MEDIA application. Our success will be measure by our capacity to handle these CITIZEN MEDIA applications.

Assessment objectives	Indicators	Defining success
Universal access to any content	Number of device types usable in the testbeds.	The satisfactory result is to have three kinds of devices: Windows based PC, STB and Windows Mobile based PDA. An outstanding outcome will add Mobile phone devices and other kind of PC and PDA.
Use case development	Use case availability	The **minimum outcome** is to have these use case running at least on one device. The **satisfactory outcome** is to have these use cases accessible from PC and STB. An **outstanding outcome** is to have these use cases running, with the same behaviour and level of user experience, on PC, STB and PDA.
CITIZEN MEDIA applications handling.	Number of new elements to add to the service framework for supporting these applications.	We consider having to develop two new elements for supporting these applications is a satisfactory result. An **outstanding outcome** would be nothing to add.
	Number of elements already in the service framework used by these applications.	The **minimum** is these applications use at least one element of the service framework. If the applications use the two third (2/3) of the element, it is consider as **satisfactory**. An **outstanding** result will be to use all the elements of the service framework.

2.2.2 Task2.2 Technological components for the CITIZEN MEDIA service framework

Results at the end of the project

At the end of the task, a number of technological components will be developed that facilitate the networked co-creation based on user-generated content. These will be integrated into the CITIZEN MEDIA Open Reference Architecture.

The focus is less on advancing the technology, but use the technology to deliver applications towards the nomadic user or the user at home on existing terminals.

Success criteria

The Task2.2 will produce technological components allowing the creation of more sophisticate applications that the elements developed in Task2.1. These components will use the elements of the Task2.1 and offer advanced features for CITIZEN MEDIA applications. The success of this task can be measure by the number of new components developed. At the end of the project we should have:

- Components allowing the 3D objects usage by the CITIZEN MEDIA applications,
- Components dealing with the localization and the context of the user/object,
- Components related to the user interface.

All the components developed in Task2.2 shall be integrated in the CITIZEN MEDIA open reference architecture.

Assessment objectives	**Indicators**	**Defining success**
3D related components	Number of developed components	The **minimum outcome** is to have two new 3D related components. Four components are considered as a **satisfactory** result. An **outstanding outcome** will be to have six new 3D related components.
Context related tools	Number of developed components	A **satisfactory outcome** is to have one new component for user context management. An **outstanding outcome** will be to have an additional component allowing the localisation of an object in a model.
User interfaces	Number of developed components	A **satisfactory** result is to have an audio multimodal interface running in one device. An **outstanding** result will be to extend this multimodal interface to several device types and using new kind of input devices.

2.2.3 Task2.3 CITIZEN MEDIA applications for testbeds

Results at the end of the project

Only applications selected for validation purposes will be developed inside the project. Other applications will remain an application prototype and serve for testing inside a user lab. This activity will be performed both during the first and the second phase of the project.

- Development of web based CITIZEN MEDIA applications for user evaluation (Cologne, Engerwitzdorf and Oslo)
- Development of CITIZEN MEDIA applications that exploit the infrastructure developed in Task2.1 and Task2.2 for evaluating the CITIZEN MEDIA Open Reference Architecture in Task4.1.
- Development of CITIZEN MEDIA applications directly on an IPTV platform for validating network and operational scalability in Task4.2.

Success criteria

By the structure of the CITIZEN MEDIA project, these applications are not defined yet. Nevertheless it is possible to measure our success. At the end of the project we have succeeded if:

- For each testbed different applications are developed tuned towards the different communities and the different development environments
- All CITIZEN MEDIA applications can be supported by the infrastructure defined in the previous tasks,
- A dedicated application is developed for measure the capacity of the framework developed in previous tasks to handle a massive deployment. The analysis of this shall allow us to produce guidelines implementation regarding the scalability, the administration and the performances of the CITIZEN MEDIA framework.

2.3 WP3 Concept and experience design of CITIZEN MEDIA applications

2.3.1 Task3.1 Techno-centred application design

Results at the end of the project

A number of application concepts and prototypes that have been given shape by users in a real-life setting, based on state-of-the art and mature technology. More generally, this task will result in a better understanding of the way users give shape to a technology by using it in their daily lives, and collaboratively (re)design these applications with developers.

Success criteria

The success criteria for the applications developed in this task can be measured by the involvement of the users on the testbeds. Hence they correspond to the success criteria for Task4.3.

2.3.2 Task3.2 User-centred application design

Results at the end of the project

A number of application concepts and prototypes based on short-term and emerging technology, and a number of application prototypes based on existing and non-existing technology, both thoroughly designed with and tested by users.

Success criteria

In this task we will develop application concepts that are technically feasible and /or prototypes of application based on existing and non-existing technology. In co-design we have to develop usable, likeable and sociable prototypes or applications based on ideas of users explored by different creative methods. In user-informed design we also have to come to usable, likeable, and sociable application and/or prototypes. Using this method we base our applications/prototypes, evaluated in this task, on the personas, scenarios and user requirements gathered in WP1. To evaluate these criteria we will use formative evaluations instead of summative evaluations which will be carried out in WP5.

Assessment objectives	**Indicators**	**Defining success**
Develop prototypes/applications using the co-design approach	Extent to which the ideas of the users can be incorporated into effective prototypes.	The **minimum outcome** implies at least one prototype or application co-designed with users.
Develop prototypes/applications using the user-informed design approach	Extent to which we can translate the personas, scenarios and user requirements defined in WP1, into applications or prototypes.	We see the implementation of at least 60% of the input in WP1 as a **minimum outcome**, 70% as a **satisfactory result** and 80% or more as **outstanding**.
The usability and quality of the prototypes has to improve during the design process	The number of usability and quality problems.	In our formative evaluations we assign 1, 2 or 3 stars to the usability problems (3 has the highest priority). The **minimum outcome** is that the amount of usability problems of priority 3 decreases, or that its priority decreases (from 3 stars to 2 stars or one star). The same for problems of priority 2 and priority 1.
Evaluation of prototypes developed using co-design or user-informed design.	The applications and prototypes have to be likeable and sociable.	In our formative evaluations we assign 1, 2 or 3 stars to the likeability and sociability problems (3 has the highest priority). The **minimum outcome** is that the amount of likeability and sociability problems of priority 3 decreases, or that its priority decreases (from 3 stars to 2 stars or one star). The same for problems of priority 2 and priority 1.

2.3.3 Task3.3 Integration of user-centred and techno-centred design

Results at the end of the project

A design method which integrates user-centred and techno-centred methods.

Success criteria

In this task we will attempt to learn more from the collaboration of the user-centred and techno-centred design process. During the workshops, in which all partners will contribute, we will try to come to a new integrated design method which can lead to new application/prototypes. Additionally, we publish papers and articles about the new integrated method, which can draw the attention to the results of the Citizen Media project.

Assessment objectives	Indicators	Defining success
Develop a new integrated design method	The extent to which the new integrated method leads to new applications/prototypes during (the) workshop(s).	This objective **fails** when we can't integrate the techno-oriented with the user-centred design process. The **minimum outcome** implies that some aspects of both methods can strengthen or complete the other method. A **satisfactory outcome** is that we can develop a new integrated method. An **outstanding outcome** is that we can use this new method to develop at least one application/prototype in the second phase of the Citizen Media project.

2.4 WP4 Validation of CITIZEN MEDIA applications and architecture

2.4.1 Task4.1 Implementation of Citizen Media open reference architecture

Results at the end of the project

The outcome of this task corresponds to the overall objective of the project.

Success criteria

The success criteria correspond to the Level 2 criteria for the overall project.

2.4.2 Task4.2 Network and operational scalability of CITIZEN MEDIA applications

Results at the end of the project

This task will identify and propose solutions to network scalability problems that occur by user-generated content. Developing an appealing application that triggers as many users as possible to upload their content and to generate a massive amount of bi-directional traffic will validate the solution. A further result should be a clear concept structure on administration, operation and support function.

Success criteria

Define effective processes for handling user generated content uploads in asymmetric networks. Develop an easy to use upload application that triggers as many users as possible to upload their content and to generate a massive amount of bi-directional traffic.

Assessment objectives	Indicators	Defining success
Network results	Network data	This objective would **fail**, if no (bi-)directional traffic data could be generated. To achieve **minimum outcome** some amount of bi-directional traffic has to be generated.
Network concept and operational process	Support for bi-directional traffic.	The task would **fail**, if no concept or process is available. To achieve **minimum outcome** is a network or an operational process. For a **satisfactory outcome** a network and an operational process for CITIZEN MEDIA content handling is available. These results would be **outstanding** if at least a network and a full automatic operational process for CITIZEN MEDIA content handling is available.

2.4.3 Task4.3 Community hosting and user monitoring for CITIZEN MEDIA applications

Results at the end of the project

Community hosting should lead to a high level of awareness for the testbed. Furthermore, it enables the feedback on the tested applications which can be used to detect technical problems, for improving the usability and for adjusting and designing new applications.

Testbed activities will result in strong, proactive and representative testbed communities that forms the basis for the deployment of the developed use cases and applications. The result will be measured by the feedback from the communities, illustrating the socio-demographic diversity of the involved user groups as well as their level of involvement.

The outcome of the measurements should be statements about the usage of the developed tools and various applications of WP2 and the emergence of new applications. This will result in qualitative answers to questions on the following topics

- Technical evaluation of the application framework reference architecture.
- Which new applications emerged during live community events
- Is there a technical bottleneck?
- To which degree the new and existing applications successful?
- User experience feedback in the testbed in term of interface, navigation, performance and measurement of the developed tools.
- Which parts of the application have to be improved?
- Data and Results on - network design
    - Network capacity
    - Bandwidth
    - Operation
    - And application scale
    - Mainly in bi-directional data stream applications

Those questions will mostly come up in the evaluation WP and will be to a considerable degree answered by the experiences gained from this measurement task.

The community hosting is also part of the ***dissemination of results*** of the project.

Success criteria

Giving opportunities to existing and new communities to form pro-active and representative testbed communities that form the basis for the deployment of the developed applications. The hosting should also involve opportunities for the community to get in context of technology and be able to monitoring user experience. At least one pro-active community would be a success, because communities can fail.

Assessment objectives	**Indicators**	**Defining success**
User evaluation of CITIZEN MEDIA applications	See WP5	See WP5
Creating active communities through community hosting	Number and quality of selected communities	The task would **fail**, if no active community could be established. To achieve **minimum outcome** at least one community would actively become involved in a CITIZEN MEDIA application. For a **satisfactory**

		outcome at least two communities would actively become involved in a CITIZEN MEDIA application(s). These results would be **outstanding** if at least three or more communities would actively become involved in a CITIZEN MEDIA application(s).
User Monitoring	Implementation of user monitoring methods.	The task would **fail** if no methods of monitoring the user activity could be established. The **minimum outcome** is the implementation of monitoring methods in the user activity.

2.5 WP5 User evaluation of CITIZEN MEDIA applications

2.5.1 Task5.1 Evaluation plan

Results at the end of the project

The evaluation plan will set up the principles behind the entire user evaluation process throughout the project like evaluations cycles, methods applied, interdependencies of evaluation objectives, evaluation infrastructure, metrics or the set up of a solid user base.

Success criteria

A main success criterion is to base the evaluation plan on the major objectives and questions of the project. The evaluation plan should be designed to meet the requirements of the project partners and others with a stake in the project. Thus, the success of this task mainly depends on the acceptance of the evaluation plan by the project partners.

The evaluation plan delivers a comprehensive view on the project and on the different evaluation stages. Therefore, the success of the evaluation plan also depends on its ability to fit to each stage of the project, by providing enough time for defining the evaluation details. The evaluation plan is a living document, which means that it has to be revised at each stage of planning, for example depending on the input from other workpackages. This means that it is necessary to include important sections of related deliverables and activities into the preparation of the evaluation plan, such as those on user requirements and on identified users/user groups in the different testbeds investigated in WP1. Some of the main phases for the evaluation plan in the first phase are:

V1 (M7): Includes the main stages for all user evaluation activities during the project (from evaluation during concept design to user experience evaluation of CITIZEN MEDIA prototypes and applications in either laboratory environments as well as the deployment of applications in the testbeds). This version is not expected to contain detailed questionnaire design; this will be done very specific and detailed for each phase.

This version includes a detailed evaluation strategy for the Cologne testbed, where the testbed deployment is planned very early (for M6).

A more detailed evaluation strategy is also included for the evaluation of the applications concepts and prototypes (starting M5 with co-design and in M7 with informed-design). The main objectives of the user evaluation, the evaluation procedures (mix of methods) and the resources involved (on-site and remotely) will be identified.

V2 (M12): This version supplements the previews version of the evaluation plan with a detailed planning for the user evaluation in the testbeds, including user experience and acceptance evaluation strategies. For this version input about the user requirements and applications, which will be deployed, is needed to better plan the user evaluation.

As mentioned the success of this task depends on the input from WP1, on the user requirements analysis. The findings influence the creation of the evaluation plan.

Another success criteria or precondition for an effective evaluation plan is a clear description of the key characteristics of the CITIZEN MEDIA applications to be evaluated. The most important information are:

1 Application type

2 Major technologies whose application is going to be evaluated

3 Functionality or service offered

4 Verification and demonstration site

2.5.2 Task5.2 User experience evaluation

Results at the end of the project

This task will use leading edge evaluation technology and also apply the refined methods and means (see Task5.4) to assess the user experience and develop a solid data base for follow up design recommendations and experience implications.

Success criteria

One of the main goals from the user perspective is the development of a usable, needs oriented application. Therefore it is crucial that the user interface of the CITIZEN MEDIA prototypes and applications leads to a sufficient user experience. In order to ensure this goal, a combination of different methods and techniques will be used to gather information from different perspectives. To include as many issues as possible into the usability and user experience evaluation a detailed version of the user experience evaluation procedure will be released approximately six weeks before the start of the user evaluation.

Success criteria for this task include:

1. The availability of and access to prototypes and applications for evaluation in the different design and development phases and regarding different usability and user experience objectives.
2. CITIZEN MEDIA applications deployed and evaluated over a longer period of time (1 month) at the 3 testbeds to conduct user experience evaluation.
3. The access to a clear profile of the people (users/user groups) in the testbeds (from WP1).
4. The access to users/user groups/communities for evaluating the prototypes and applications, especially during the testbed phase.

5. The ability to coordinate user experience evaluation across multiple languages and cultures as required by the different testbeds.

User research is qualitative research. Nevertheless we created some “harder” measures for the CITIZEN MEDIA evaluation. The measures below are expert interpretations of the qualitative results and reflect the minimum outcome of each objective (which we define with 60% and will be applied as whenever possible. However a combination of quantitative and qualitative data is envisaged). The detailed measurement levels (satisfactory outcome and outstanding outcome) and measurement means have still to be developed and consolidated based on the special characteristics of the CITIZEN MEDIA systems and applications.

The following table sets out the basic objectives for the ease of use (amongst others usability objectives) and user experience evaluation and their outcome.

Assessment Objectives	**Indicators**	**Minimum Outcome (defining success)**
Ease of Use depends on different indicators and should ensure a user friendly interaction with the CITIZEN MEDIA prototypes and applications		
	System performance	Robust and stable applications have to be implemented to assure 60% user satisfaction towards system performance
	Task efficiency	Robust and stable applications have to be implemented to assure 60% user satisfaction towards task efficiency
	Usability, including different usability goals, user satisfaction	Positive attitudes toward the use of the tested system, **minimum** of 60% user satisfaction towards usability goals
User Experience includes factors to provide users with a good experience with the CITIZEN MEDIA applications.		
	Fun (likeability)	Depends on the designed and developed applications, **minimum** fun level 60%
	Emotion	Related to emotions experienced during usage, **minimum** emotional level 60%
	Motivation	Depends on user motivation to use the CITIZEN MEDIA

		applications over a longer time span, **minimum** motivational level 60%
	Sociability	Related to the social use within and between communities, **minimum** sociability level 60%
	Co-creation experience	Challenge to define the main factors which drive and support co-creation and a co-creation experience, **minimum** co-creation experience level 60%
	… further indicators are possible, but highly depend on the prototypes and applications which will evolve, be designed and developed	

2.5.3 Task5.3 Evaluation of user acceptance

Results at the end of the project

The aim of this task is to evaluate the user acceptance of A/V networks in open places. The purpose is to identify the kind of services that are widely accepted by the end users (user added values), but also to identify solutions that are less successful. Thus the ways to implement these services or their existence in general should be considered in the forthcoming design and development process. The results of this task will guide future development on commercial services and provide important input to the definition of business cases, exploitation and marketing plans.

Success criteria

The original Technology Acceptance Model (TAM) was chosen as the starting point for the CITIZEN MEDIA project because it provides a framework for connecting the field evaluation findings of ease of use and usefulness and allows further methodological extension. The main questions guiding the acceptance evaluation are how different users are using the CITIZEN MEDIA applications in their everyday lives and what features/components make the applications acceptable in their actual usage. Kaasinen (2005) extended the TAM by two additional characteristics that affect the usage and acceptance: trust and ease of adoption and by refining the factor usefulness as value to the user.

Main success criteria for the realization of this task are:

1. CITIZEN MEDIA applications deployed and evaluated over a certain period of time (1 month) at the 3 testbeds to conduct user acceptance evaluation.
2. To successfully evaluate user acceptance, it is necessary to have a clear profile of the people (users) in the testbeds. This profile should be made available by the project partners that have access to the testbed user panel (cf. WP4). In addition access is needed to this group of test users in order to involve them as respondents in the research. This also implies that, at the moment of evaluation, the CITIZEN

MEDIA applications are up and running, so that the usage is being logged on a systematic basis.

The following measures reflect the minimum outcome of each objective (which we define with 60%). The detailed measurement levels (satisfactory outcome and outstanding outcome) and measurement means have still to be developed and consolidated based on the special characteristics of the deployed CITIZEN MEDIA applications. The following table sets out the basic objectives for the user acceptance evaluation and successful outcome.

Assessment Objectives	**Indicators**	**Minimum Outcome (defining success)**
User Acceptance is defined by different indicators and highly depends on perceived ease of use and usefulness of the provided applications.		
	Perceived Ease of Use (is affected by the user's own experiences of using the application in different contexts of use)	**Minimum** 60% perceived ease of use
	Perceived Value by Users/Usefulness (includes rational utility and related to other features of a product which users appreciate and follows the question, what the user wants to achieve.)	**Minimum** 60% perceived usefulness
	Trust (includes perceived reliability of the technology and the service provider, reliance on the service in planned usage situations, and the user's confidence that (s)he can keep the service under control and that the service will not misuse his/her personal data)	**Minimum** 60% trust level
	Perceived Ease of adoption (are people aware of all features of a product/application, do they have the motivation to try it out, how they use it – "out of the box experience")	**Minimum** 60% ease of adoption
	Willingness-to-pay (difficult to assess when not based on real purchasing decisions/special methods	60 % of users would pay for CITIZEN MEDIA applications

	will be used)	
	Collaborative creation of applications/content (related to community building and community activities)	60% increase of community activities during testbed phase, based on user contributions (audio-visual products)
	Identifying to what extent the method of Proxy Technology Assessment (Task 1.3) has succeeded in obtaining valid insights in the real-life user practices with the CITIZEN MEDIA applications. This will determine the usefulness of the method for design ethnography of CITIZEN MEDIA applications in the conceptual phase. Proxy technology assessment (PTA) data (collected in T 1.3) will be related to the acceptance evaluation (PTA gives insights in the real-life user practices with the CITIZEN MEDIA applications).	The data and findings from the Proxy Technology Assessment method, which are being imported in the development of applications, are confirmed by the data from the social evaluation of CITIZEN MEDIA applications on qualitative and/or quantitative level in Task5.3. This would confirm that the PTA method is a valid ethnographic method for assessing the future use of applications to be developed and thereby informing user-centred design in the conceptual phase.

2.5.4 Task5.4 A/V networks user experience patterns and methods

Results at the end of the project

This task will examine new methods and tools that enable researchers to perform optimised in situ research during pilots (like logging, which are only sparsely applied during evaluations). The task aims also to find out how people feel with the technology and how they adopted it.

Success criteria

User experience measurement is an emerging field, which still lacks a generally accepted theoretical framework to guide it. The results of this task will lead to a more profound understanding of audio-visual networks with regard to user experience patterns and methods. Within this task we aim to develop 30 user experience patterns, which define the main success criteria for this task.

Design patterns are formalized descriptions of proven concepts that express solutions to some design challenges. Design patterns consist of a set of contexts, common challenges (problems), descriptions, enumeration of forces on the general resolution of the forces, and their impact on the final solution. In user interface theory, design patterns are applicable for all user types, applications, platforms, content, and markets. The objective of using design patterns is to increase the quality of well-designed user interfaces with improved usability, usefulness, and appeal, as well as user experience.

To be successful, the design patterns have to contain the following parts:

To be successful, the design patterns have to contain the following parts:

1. name: describes the challenge
2. context: context of the user/problem
3. problem: describes the designers goal
4. forces: within the context
5. solution: describes how to achieve the desired outcome

Design patterns have been proposed in many domains as a format for capturing and sharing design knowledge between practitioners. Patterns communicate insights into design problems, capturing the essence of recurring problems and their solutions in a compact form. They describe the problem in depth, the rationale for the solution, how to apply the solution, and some of the tradeoffs in applying the solution.

Patterns differ from other formats for capturing design knowledge, such as guidelines and heuristics, in three ways. First, patterns offer solutions to specific problems rather than providing high-level and sometimes abstract suggestions. Second, patterns are generative, helping designers create new solutions by showing many examples of actual designs. Third, patterns are linked to one another hierarchically, helping designers address high-level problems as well as low-level ones. Patterns are not intended to replace guidelines and heuristics but rather complement them. Patterns are simply another tool for helping designers create high-quality solutions.

2.5.5 Task5.5 Design recommendations

Results at the end of the project

The aim of the task is to select the design option that fits best the user needs. Observed problems during the testing and field phase will be reported and suggestions for design improvements will be delivered to the partners, especially to the application developers. The recommendations are based on the criteria used in Task5.2 and in Task5.3, so that we can for example make clear suggestions regarding the “ease of use” of an application.

Success criteria

Design recommendations are depending on a successful deployment and evaluation of CITIZEN MEDIA applications. Design recommendations derive from the results of the previous evaluation work and developed design patterns. They highlight the main challenges for further design and development processes. Thereby design options that fit best the user needs are selected and will result in a modified application.

Success criteria for this task include:

1. Fully documented user evaluation results as basis for reporting design recommendations.
2. Implementation of the recommendations in the user interface design of future CITIZEN MEDIA applications.

2.6 WP6 Business modelling

2.6.1 Task6.1 Business requirements for CITIZEN MEDIA applications

Results at the end of the project

Task6.1 will result in a starting document with a first version of a methodological framework and requirements for successful new applications, services or formats for CITIZEN MEDIA

as well as a number of case studies from emerging business models around user generated content.

Success criteria

Assessment objectives	Indicators	Defining success
The analysis of emerging business models has to include business models that: a) incorporate a central role for users as (co)producers, distributors and/or marketers of content b) be applicable to both commercial as well as non profit services & applications c) take into account commercial, non-profit stakeholders and public-private partnerships	Richness and completeness of the market analysis of emerging business models for user generated media.	To achieve a **minimum outcome** we have to produce an analysis of emerging business models that take into account at least 1 of the 3 criteria. For a **satisfactory outcome** 2of the 3 criteria need to be included. For an **outstanding outcome** 3 of the criteria need to be included.
The business model methodology has to provide a viable model for analysing business models for user generated media that are currently emerging in the market.	Acknowledgement by project partners & stakeholders in the market of business model methodology as a useful framework for analysing business models for user generated media	**Minimum outcome**: the business model framework has been discussed with and validated by the other relevant work packages within the CITIZEN MEDIA project and at least four external experts in the field of new media and/or user generated content

2.6.2 Task6.2 and Task6.3 Business models and roadmaps for CITIZEN MEDIA

Results at the end of the project

- Specific value networks, business models and roadmaps for commercial implementation for the CITIZEN MEDIA applications in the first phase of the project.
- Generalization of these issues, beyond the scope of the applications, services and formats developed within the CITIZEN MEDIA Project, to particular genres of applications, services and formats in EU markets.

Success criteria

Assessment objectives	Indicators	Defining success
The business model framework is acknowledged within the CITIZEN MEDIA project team as a workable and productive general framework & methodology for exploring potential business models for the services and applications to be developed in the testbeds within the *first & second* phase of CITIZEN MEDIA.	Acknowledgement by other work packages of the methodological framework as a useful tool to assess the business viability of the services and applications developed in CITIZEN MEDIA	To achieve a **minimum outcome** the business model framework (i.e. the framework used to develop potential business models) has to be 'filled-in' and discussed extensively by both project partners & potential external stakeholders for one or more applications in at least one of the three testbeds. For a **satisfactory outcome** it has to be fully 'filled-in' and discussed for services developed in two of the three testbeds, or in one testbed and for the open architecture developed in WP2. For **outstanding outcome** is has to be fully 'filled-in' and discussed for services developed in all three testbeds, or in two testbed and for the open architecture developed in WP2.
The business model framework leads to a potentially successful model for user generated media in (national) European markets .	Acknowledgement by stakeholders in the market of potential new business models of user generated media developed within CITIZEN MEDIA	The business model framework has been discussed with and validated by at least four external experts in the field as a useful model to assess business potential for user generated media

2.6.3 Task6.4 Vision on user-generated media

Results at the end of the project

The result of this task will be a "vision document" on the commercial aspects of user-generated media in general and CITIZEN MEDIA Applications in particular. This vision document will summarise the findings of the research, present (potential) business models, identify bottlenecks and will also contain a vision on the socio-economic and cultural impact of networked, A/V media on society at large.

Success criteria

Assessment objectives	Indicators	Defining success
1) The Vision document contains clear answers on the requirements for successful business models for commercial as well as non profit user generated services and applications. 2) The Vision Document formulates the conditions under which user generated media can become popular as well as economically viable. 3) The Vision Document identifies the main bottlenecks (if any) for further exploitation of the services and applications developed within CITIZEN MEDIA as well as for user generated media in the EU market as a whole.	Acknowledgment by both CITIZEN MEDIA project partners and external experts of the conclusions of the Vision Document	The results of the business modelling work that will be included in the Vision Document have been discussed with & are validated by: - CITIZEN MEDIA project partners - A mix of European experts, including market players - The (preliminary) results of the Vision Document have been presented at least two European Conferences

2.7 WP7 USER-GENERATED CONTENT INSIDE CONSORTIUM

2.7.1 Task7.1 Vision on user-generated media

Results at the end of the project

The productions of Management By Media will be collected and provided in three collections for documentation purposes. The internal communication media will deliver the key messages of the IP, help all stakeholders to find orientation, support decision making and foster understanding and simplicity within the complexity of the IP. Through specific interviews the empathy of the project partners gets captured, team building will be facilitated and quick know-how transfer is assured. Another valuable result will be user-generated content within a professional environment (the community of the project stakeholders).

Success criteria

Assessment objectives	Indicators	Defining success
Utility of Management by Media productions	Demand for Management by Media Content (on- and off-line)	The **minimum outcome** is an average number of 30 hits per published video (on-line). A **satisfactory outcome** is an average

		number of 45 hits per published video. An **outstanding outcome** is an average of 60 hits per published video.
Make project partners experience what is meant with co-creation and UGC	Partners will reference on co-created and/or user generated content from this project in their presentations or will share their own experiences in presentations and or scientific papers.	The **minimum outcome** is at least two presentations and one scientific paper about new insights into user generated content and co-creation.
Encourage Dissemination Activities	The project will reach its dissemination targets	The **minimum outcome** is that the project will reach 50% of the dissemination targets on a minimum level. **Satisfactory outcome** is that the project will reach 50% of the dissemination targets on a satisfactory level. **Outstanding outcome** is that the project will reach 50% of the dissemination targets on an outstanding level as defined under section 1.4.
Secure involvement of all project partners throughout the whole project.	Frequent usage of the dissemination hub website	The **minimum outcome** is an average of at least 15 unique visitors per month on the dissemination hub website. A **satisfactory outcome** is an average of 15 unique visitors on the dissemination hub in two weeks. An **outstanding outcome** is an average of 15 unique visitors per week on the dissemination hub website.
Make partners existing communications channels available for dissemination activities	Samples of dissemination through various communication channels	The **minimum outcome** is an average of one existing communication channel per partner that has been used for project dissemination. A **satisfactory outcome** is an average of two different communication channels per partner that have been used for project dissemination. An **outstanding outcome** is an average of three existing

		communication channels per partner that have been used for project dissemination.

3 RISK MANAGEMENT

3.1 Risk management planning

In a structured approach we intend to define a risk register that identifies the most important project risks including a mitigation plan for these risks. The first step is to describe how to approach and plan the risk management activities for the full duration of the project. Extensive literature can be found about risk management to assure the outcome of the project objectives. We will pursue an easy and pragmatic approach that is tuned towards the size and type of project as displayed in Figure 4.

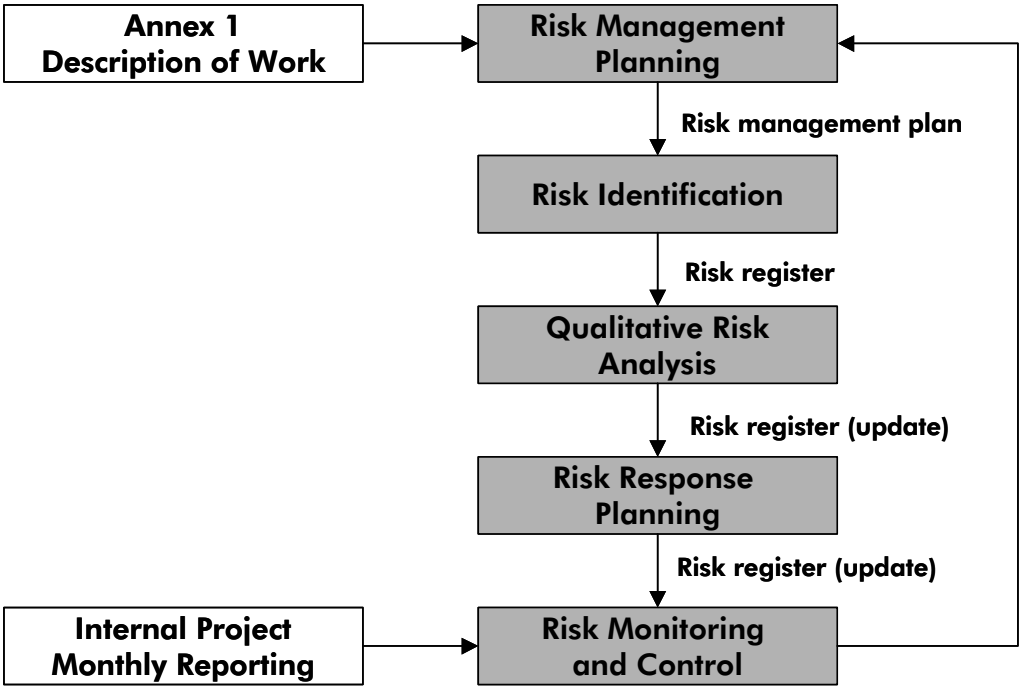

Figure 4: Project Risk Management Process Flow Diagram

A risk is an uncertainty that can have a negative or positive effect on the outcome of the project. The goal of the project risk management is to minimise potential negative risks while maximising potential positive risks. Risks have only two condition states: “will happen” or “will not happen”.

Internal risks may result from:

- The technical nature of the R&D: unexpected technical difficulty,
- The lack of professionalism of some partners (incomplete system specification and architecture study, poor quality / insufficient documentation, incomplete unit testing of software/hardware components, insufficient integration testing/verification/validation, planning errors, over specification without resource counterpart, wrong technical options, etc.
- Poor communication and cooperation between the partners
- Strategy evolutions by the partners
- Resource shortage by the partners

- Too ambitious objectives in terms of budget or feasibility.

External risks are essentially coming from the existence of other industrial solutions as well as from worldwide competing R&D. Mitigation are undertaken at the appropriate level in the project organisation.

In the continuation we will focus on risks associated with specific project activities and result in additional delay, cost or failed criteria.

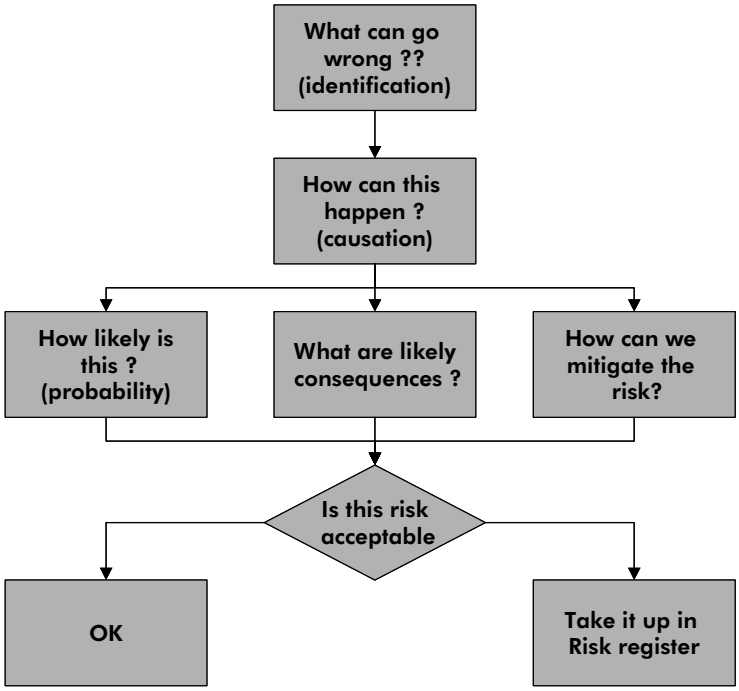

Figure 5: Identification of risks

To identify potential risks we simply used brainstorming techniques per working package and followed the procedure displayed in Figure 5. Next step involves analysing and selecting the risks that are to be monitored and tracked during the project execution. Again different techniques exist, but we have chosen for a qualitative risk analysis prioritising risks based on their probability and impact of occurrence. To that aim we have identified 3 levels for probability and impact (high, medium and low).

	HIGH Probability	MEDIUM Probability	LOW Probability
HIGH Impact			
MEDIUM Impact			
LOW Impact			

Figure 6: Risk categories inside project

Combing the risk probability and impact, all potential risks are classified into 3 risk categories in our project (red, orange and green). The highest attention will go to the red areas indicated in Figure 6 whereas the green areas do not require any attention.

For the red and orange areas, a risk response or contingency plan is scheduled. Contingency plans are predefined actions that the risk owner will take if an identified risk event occurs.

To mitigate the risks, a number of inherent measures have been described in Annex 1. These are based on lessons learned from different project partners participating in previous IP projects.

- By splitting the full duration of the project up into two phases – see figure 7 Annex 1 – lessons learned during the first can be taken into account during the final phase.
- Avoid bad communication and pending problems by simplified project management
- Assure partner involvement in IP projects by management by media (see WP7)
- The project uses different complementary design and evaluation methods to assure the outcome of the project.
- The project outline reduces internal dependencies to the greatest possible extent. From M3 onwards, all working packages can start their activities in parallel. No key dependencies with external projects or partners exist.
- Timing tracked by monthly report (cf. below) that contains a red flag section, in which the WP leaders highlight issues and propose a corrective action. Red flags of previous months are traced until they are solved.
- Deliverables reviewed by 2 people appointed by core team and for this resource are foreseen for each partner in WP0
- Timely escalation in hierarchy of responsible partner and in project

For a contingency plan roles and responsibilities have to be identified. At first who takes the ownership of the problem when it the event occurs. Roles are not persons but management bodies defined in Annex 1 like coordinator, WP leader, core team, etc.

Finally the identified risks have to be documented, monitored and controlled. The red and orange risks are documented in a so-called risk register defined in next section. In the risk register each risk is identified by a number and for each risk the event is described, the root cause, the potential impact, the risk response, risk owner, the probability and impact level and finally the project activity to which it is linked.

The core team in the project responsible for the daily management has the role monitoring identified and residual risks, identifying new risks, carrying out risk response plans, and evaluating the effectiveness of risk strategies throughout the life of the project.

3.2 Risk register

3.2.1 WP0 Technical steering and consensus

Risk0.1: Unexpected requirements not anticipated in the project

- *Event description:* During the cause of the project requirements are identified which can not developed inside the project due lack of resources or skills inside the consortium like unexpected user requirements, scalability issues, performance issues, availability of terminals, involvement of users, etc

- *Root cause:* At the start of the project there is no clear specification of all applications, services and infrastructure to be developed. This is steered by the user and for this reason is unknown.
- *Potential impact:* In the worst case this may block the progress of the project because an essential element can not be developed further. Hence the work can not be executed as intended.
- *Risk response:* Severe changes will lead to adaptation of the work programme in Annex 1, whereas minor changes will lead to adaptation of the methodologies used.
- *Risk owner:* The core team should monitor the change of project scope.
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* To all project activities

Risk0.2: Effectiveness of approach

- *Event description:* At some time during the project the conclusion is drawn that user-centric approach and methodologies defined in Annex 1 are no longer delivering the expected outcome.
- *Root cause:* There are different causes for this event. After a periodic review meeting the work planning may be adapted. But also from the user evaluation, the scope will most probably be adapted to obtain more relevant results.
- *Potential impact:* This will change or stop a certain activity in the project and as a consequence change the outcome of the project
- *Risk response:* Severe changes will lead to adaptation of Annex 1, whereas minor changes will lead to adaptation of the methodologies used. For each periodic reporting the planning for the next 18 months will be adapted.
- *Risk owner:* The core team should monitor the change of project scope.
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* To all project activities

Risk0.3: Scope creep

- *Event description:* The tendency for project scope to keep getting bigger
- *Root cause:* New requirements are identified or new problems encountered that are outside the project scope.
- *Potential impact:* This could also be a positive risk because actual user problems are identified and solved. On the other hand the focus of the project decreases. The resources are shared over more activities. Hence the progress is less substantial. Potentially some of these problems need to be addressed in the project to reach our goals.
- *Risk response:* Severe changes will lead to adaptation of Annex 1, whereas minor changes will lead to adaptation of the methodologies used.
- *Risk owner:* Core Team
- *Probability level:* High
- *Impact level:* Medium

- *Applicable to the project activity:* To all project activities

Risk0.4: Market evolves faster than pre-competitive research

- *Event description:* It is impossible to know what is going on in the research and development organisations of large company. For example a commercial company such as GOOGLE launches an application, a service, a technological component that goes beyond activities inside the project.
- *Root cause:* The market evolves extremely fast. New concepts are launched continuously and may have a huge impact on social networks. For example YouTube - a popular free video popular free video sharing web site which lets users upload, view, and share video clips – was founded in February 2005. Nobody could predict that within less than 2 years this application concept would turn into a huge commercial success.
- *Potential impact:* The outcome of the work performed in the project may seem outdated
- *Risk response:* It is hard to see what concepts other companies are developing inside the laboratories. If such a problem is identified, it may be necessary to change the activities inside the project.
- *Risk owner:* Core Team
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* To all project activities

Risk0.5: Misalignment between project activities

- *Event description:* From Figure 1 it is clear that design, development and testing are not sequential. For example testbed activities will take some assumptions and start before the applications have been specified completely. Hence for example relevant development activities started early in the project may not seem as relevant towards the end of the project.
- *Root cause:* This is intrinsic when multiple teams start in parallel with activities. This has been a clear choice from the start of the project for many good reasons.
- *Potential impact:* The outcome of some activities in the project may seem outdated or not well integrated into the project.
- *Risk response:* Will depend on the circumstances. In the worst case the activity will be stopped, in the normal case the activities will be tuned towards new goals.
- *Risk owner:* Core Team
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* To all project activities

Risk0.6: Indecisiveness / student syndrome

- *Event description:* Project partners wait until urgency to react, to start up activities, etc.
- *Root cause:* A user centric approach requires initiative and flexibility from the project partners because the initial specification set at the start of the project may change

during the project. From the user studies and evaluation, new requirements are identified that are not anticipated in Annex 1.

- *Potential impact:* Project partners are not familiar with the user-centric design methodologies that demand flexibility from the project partners. The modifications may not line up with the internal priorities of the project partners. Another danger is that partners remain waiting on other project partners and do not execute their role.
- *Risk response:* Severe changes will lead to adaptation of the work programme in Annex 1, whereas minor changes will lead to adaptation of the methodologies used.
- *Risk owner:* The core team should monitor the change of project scope.
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* To all project activities

Risk0.7: High turnover of critical persons in the project

- *Event description:* New people with less experience replace experienced people involved from the start of the project.
- *Root cause:* The root cause is external to the project. Often due to shift of priorities inside an organisation. Valuable key people involved in the project are allocated to other projects inside their organisation.
- *Potential impact:* This slows down the decisions taking and execution of the project. The longer the people are involved and the more they have been participating in the management, the higher the impact.
- *Risk response:* Documentation of minutes, correct handing over responses
- *Risk owner:* The main responsible – identified in the IPCA part 1 – of the project partner.
- *Probability level:* High
- *Impact level:* Medium
- *Applicable to the project activity:* To all project activities

Risk0.8: Lack of senior management support (project partner involvement) / limited authority partner representative

- *Event description:* The work of a project partner is not done or completed.
- *Root cause:* A project partners does not receive the support from his/her senior management to perform the activities in the project or the project partner representative has no authority to get support.
- *Potential impact:* Each partner in the project has a separate role, there is little overlap between the project partner activities. Hence dropping out of one partner may have an important impact.
- *Risk response:* It is difficult to gain back the support of the senior management. Especially when the organisation has different priorities due to re-organisations, merger, etc. The ultimate step would be replacement of a partner in the consortium.
- *Risk owner:* Core Team / General Assembly
- *Probability level:* Low
- *Impact level:* High

- *Applicable to the project activity:* To all project activities

Risk0.9: Social versus technological communication

- *Event description:* User requirements not taken seriously in the project. Questions from application designers and developers not answered.
- *Root cause:* The project involves different experts from different areas. Unlike purely technical project, CITIZEN MEDIA also involves a high percentage non-technical project partners. This can lead to misunderstanding between the two groups.
- *Potential impact:* Missed opportunities for success of the project.
- *Risk response:* Take time and organise tutorial sessions to bridge the gap between technological oriented persons and non-technological persons
- *Risk owner:* Core Team
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* To all project activities

3.2.2 WP1 Definition of CITIZEN MEDIA applications and architecture

Risk1.1: Unavailable micro-data

- *Event description:* We will not receive the micro-data on ICT use by households and by individuals in Europe coordinated by Eurostat, from the different countries and their national statistics office.
- *Root cause:* Because of strict national rules and regulation of confidentiality, since this is micro-data. For the moment not even Eurostat has that kind of access concerning the data CITIZEN MEDIA are interested in.
- *Potential impact:* No data on ICT usage among European Citizens, this will results in an insufficient basis for the describing the potential user groups for the CITIZEN MEDIA applications, and the outline of “A theory on patterns of media usage”.
- *Risk response:* Find other data sources or make our own limited study on ICT usage in Europe
- *Risk owner:* WP1 Leader
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* Task1.1

Risk1.2: Not applicable WP1 results for other tasks in the project

- *Event description:* That the user requirements and the results in WP1 not will be applicable for other tasks in the project
- *Root cause:* The description formats of the results are not useful for the other activities in the project.
- *Potential impact:* A more risky concept of the CITIZEN MEDIA applications since the requirements not will have basis in user studies done in WP1.
- *Risk response:* To manage a good dialogue with people in charge for using the results in other activities in the project.

- *Risk owner:* WP1 leader, WP2 leader, WP3 leader, WP4 leader, WP5 leader and WP6 leader.
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* To entire project

Risk1.3: Toolset for user requirements will not be taken in to use after the project

- *Event description:* Toolset for user requirements will not be taken in to use after the project
- *Root cause:* The content and the format of the toolset will not be found useful by external users.
- *Potential impact:* The objective of a efficient new toolset will not be achieved.
- *Risk response:* Close dialogue will potential external users of the toolset
- *Risk owner:* WP1 leader
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* Task1.2

Risk 1.4: Not every CITIZEN MEDIA application has a perfect match with one Proxy Technology

- *Event description:* Proxy Technologies (PT) are current devices and/or applications for content creation and sharing. In so far these PT are similar to the CITIZEN MEDIA applications to be developed, they enable real-life research on how people will experience and use the CITIZEN MEDIA applications. Ideally each CITIZEN MEDIA application is represented by one PT that incorporates as much as possible the application's characteristics.
- *Root cause:* Limited or no availability of state-of-the-art usable devices and/or applications that exactly resemble a CITIZEN MEDIA application to be developed.
- *Potential impact:* The identified social factors and the related social guidelines, based on the PT, will be somewhat less valid for steering the design of the appliances for CITIZEN MEDIA applications.
- *Risk response:* When no PT can be found that exactly matches the characteristics of a CITIZEN MEDIA application, a cluster of PT will be composed. Each of the PT in that cluster will then incorporate one or more characteristics needed.
- *Risk owner:* Task1.3 owner
- *Probability level:* Medium
- *Impact level:* Low
- *Applicable to the project activity:* Task1.3

Risk1.5: Data Model Complexity

- *Event description:* Once integrated all data model requirements it appears that the result is too "heavy" to be deployable on the market
- *Root cause:* CITIZEN MEDIA deals with a lot of different type of content with specific requirements

- *Potential impact:* The CITIZEN MEDIA architecture is not suitable for the market as it will be too complex to deal with.
- *Risk response:* Use technologies allowing options and add-ons. The data model needs to be scalable and evaluative. All partners shall be involved in the design of the architecture. We have also to apply the data model to the testbed in order to measure its adaptation.
- *Risk owner:* Task1.4 owner
- *Probability level:* High
- *Impact level:* High
- *Applicable to the project activity:* Task1.4

Risk 1.6: Information given by the Socio-Economic Calendar is not accurate or doesn't fit to the real situation in the testbed (user groups)

- *Event description:* Information given by the Socio-Economic Calendar is not accurate or doesn't fit to the real situation in the testbed
- *Root cause:* Data basis will change between the data collection and the application of the Socio-Economic calendar. (How much data will change?)
- *Potential impact:* The Socio-Economic calendar will not be useful for the partners involved in WP3, WP4 and WP5, means it will not help them to save time.
- *Risk response:* Task1.5 will define a process for regularly updating the event data on the calendar. Task1.5 will additionally provide qualitative information on the user groups (video interviews), and on the topics that matter to them at specific dates during the year. This will give an in-depth understanding of the users and their socio-economic surrounding, that is independent from the fast changing event-information.
- *Risk owner:* Task1.5. owner
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* Task1.5

3.2.3 WP2 Design of CITIZEN MEDIA infrastructure

Risk2.1: Incompatibility within the service framework

- *Event description:* A component is not compatible with the framework.
- *Root cause:* The component developers do not use a standard interface for the input/output of the component.
- *Potential impact:* One of our major objective is not achieved and a component modification will involve delay and over cost.
- *Risk response:* From the beginning of the project, insist on the importance of standard interfaces. Involve all partners in the definition of the open reference architecture.
- *Risk owner:* WP2 leader, Task1.4 leader
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* Task2.1 and Task1.4

Risk2.2: Discordance between WP3 and WP2

- *Event description:* A prototype defined in WP3 is not feasible with the WP2 service framework.
- *Root cause:* WP2 did not anticipate the needs.
- *Potential impact:* Updating the service framework in order to support the application may imply delay and over cost.
- *Risk response:* Involve the WP3 partners in Task1.4 and organize a common session at each consortium meeting (every three month).
- *Risk owner:* WP2 leader and WP3 leader
- *Probability level:* Low
- *Impact level:* Medium
- *Applicable to the project activity:* Task2.3

Risk2.3: No device available for user testing

- *Event description:* A WP2 component needs a dedicated device to be demonstrated.
- *Root cause:* There is no device manufacturer in the consortium and/or available devices are not mature enough to handle.
- *Potential impact:* The application won't be part of a user testing campaign.
- *Risk response:* If a specific device is needed, develop a PC simulator.
- *Risk owner:* Task2.2 partners
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* Task2.2

Risk2.4: IPTV missing in Cologne testbed

- *Event description:* Task2.1 defines an IPTV use case. This application is not able to be demonstrating if there is no IPTV in time.
- *Root cause:* It was assumed NetCologne will be ready with the deployment to provide live TV channels (and according metadata) in time.
- *Potential impact:* The application is not tested in the Cologne testbed.
- *Risk response:* Ask partners involved in Task2.1 to be able to provide a light IPTV head-end system.
- *Risk owner:* Task2.1 leader
- *Probability level:* Low
- *Impact level:* High
- *Applicable to the project activity:* Task2.1

Risk2.5: Co-creation of content

- *Event description:* A CITIZEN MEDIA application is proposed for user testing but without content
- *Root cause:* The root cause is the purpose of the application itself: a CITIZEN MEDIA application deals with user generated content.

- *Potential impact:* If there is no good content, the user experience will be poor and therefore the application won't be used (and if the application is not used then there will not have new content, it's a chicken-egg problem).
- *Risk response:* This risk is especially true for 3D content. The project should probably get ready to provide some initial good models to stimulate users; also some "marketing" activity pushing users to create and publish models could be envisaged (for example modelling contexts, "model of the week" selection, and so on)
- *Risk owner:* Task2.2 partners
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* Task2.2

Risk2.6: 3D remote rendering

- *Event description:* In a CITIZEN MEDIA application, 3D contents are rendering remotely but due to the number of concurrent user the content can not be retrieved.
- *Root cause:* 3D rendering needs huge amount of resource.
- *Potential impact:* If the application is not available, users won't use it.
- *Risk response:* Even if this looks like a traditional scalability problem, it has several specific aspects that relates only to 3D and they must be considered carefully in planning the server side of the rendering.
- *Risk owner:* Task2.2 partners
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* Task2.2

Risk2.7: Media format incompatibility

- *Event description:* A device receive a content in a non supported format
- *Root cause:* The huge amount of different media format implies a device can not support all of them.
- *Potential impact:* The device is not able to render the content and the user experience is bad.
- *Risk response:* For each kind of devices used in the project, define some reference content and a set of mandatory media format. Perform the device validation with this reference content then implement a transcoding tools.
- *Risk owner:* WP2 leader
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* Task2.1

Risk2.8: Heterogeneous service platform

- *Event description:* Once in the tested, each component of the service framework runs on a different platform.
- *Root cause:* Each partner develops its component on a specific platform.

- *Potential impact:* The administration cost of the service platform is high.
- *Risk response:* At the beginning of the project, identify with the partners two reference platform by defining an OS release, a kernel version and the associated hardware. This will be achieve by defined a component description template filled by all component providers.
- *Risk owner:* WP2 leader
- *Probability level:* Medium
- *Impact level:* Low
- *Applicable to the project activity:* Task2.1

3.2.4 WP3 Concept and experience design of CITIZEN MEDIA applications

Risk 3.1: No prototypes/applications could be worked out

- *Event description:* Some soft- or hardware parts that are to be developed for these applications are not ready in time and without them the prototype doesn't work properly.
- *Root cause:* Technology needed for the applications/prototypes is not available or is not available in time.
- *Potential impact:* Project delay
- *Risk response:* have an alternative technology or demo version so tests WP3, WP4 and WP5 can happen like planned
- *Risk owner*: Task3.1 leader
- *Probability level:* medium
- *Potential impact:* high
- *Applicable to the project activity:* Task3.1

Risk 3.2: No new prototype or application concept could be worked out in time

- *Event description:* Develop no prototype (and have no alternative option when it doesn't seem as innovative as we thought in the beginning).
- *Root cause:* A prototype can look very innovative in the beginning, but it is always good to have some alternatives). We never know if a competitor develops it before us, or what technical or problems (related to user and task analysis) show up later in the process (after a test) that can't be solved.
- *Potential impact:* Project delay
- *Risk response:* User and task analysis would have to be redone
- *Risk owner*: All partners involved in WP3
- *Probability level:* Low
- *Impact level:* High
- *Applicable to the project activity:* Task3.2

Risk 3.3: The right end-users are not recruited

- *Event description:* The test users are not a representative sample of the intended end-users. For the co-design process the users which help develop the applications/prototypes do not match the end-users.

- *Root cause:* When tests are planned and users don't show up, it can be quite difficult to find others to replace them. This way we could not recruit enough users. It's also possible we recruit users with the wrong profile (i.e. wrong IT-skills, age, gender, education, etc.). This can occur when the recruitment company isn't properly briefed.
- *Potential impact:* Project delay
- *Risk response:* We have to recruit the right users ourselves or set up a proper communication with the recruiting agent to make sure we get the right users.
- *Risk owner*: All partners involved into the recruiting are responsible for their own recruited users.
- *Probability level:* Low
- *Impact level:* High
- *Applicable to the project activity:* Task3.2

Risk 3.4: No new design method could be worked out

- *Event description:* The integration of the techno-centred and user-centred design process would not work.
- *Root cause:* Integrating the two methods might turn out to be impossible because the people involved in the techno-design and user-centred design do not cooperate enough to integrate both methods or that the two methods turn out to be impossible to integrate
- *Potential impact:* Project delay
- *Risk response:* WP3 leader
- *Probability level:* Low
- *Impact level:* Medium
- *Applicable to the project activity:* Task3.3

Risk 3.5: Input out of other work packages is delayed, so the prototypes will not be ready in time to test

- *Event description:* The input needed to work on that is developed in WP1 (and WP2) is not ready and will not totally be included into this project
- *Root cause:* Deliverables of Task1.1 and 1.2 are not delivered on time
- *Risk response:* make sure everybody delivers their results (and especial the documents/prototypes that are developed as input for other work) before the deadline is passed or use preliminary results to continue
- *Potential impact:* Project delay
- *Risk owner*: the work packet leader of WP1 (and WP2)
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* Task1.1, Task1.2 & Task3.2

3.2.5 WP4 Validation of CITIZEN MEDIA applications and architecture

Risk4.1: No Community activity

- *Event description:* Communities are set up and being hosted, but there comes no real group activity out of them, and the community stops being active.
- *Root cause:* General lack of motivation in the community.
- *Potential impact:* If all communities will fail, the general outcome of the project will fail.
- *Risk response:* Pro-active support the community. Host people, that are important for the community. Develop new communities.
- *Risk owner:* WP 4 Leader
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* Task4.3

Risk4.2: Communities don't drive innovation

- *Event description:* Communities are active, but neither drive technological, nor social innovation. Communities don't co-create the application design
- *Root cause:* Lack of innovation activities within the community.
- *Potential impact:* If all communities fail, the general project outcome could be at risk.
- *Risk response:* Especially host and train innovation activities for the communities.
- *Risk owner:* WP 4 leader
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* Task4.3

Risk4.3: Technical security issues

- *Event description:* Technical security issues occur during the use of the CITIZEN MEDIA applications.
- *Root cause:* Security holes in the CITIZEN MEDIA applications.
- *Potential impact:* Hack attacks on the applications or the network.
- *Risk response:* Detecting the security issues should lead to a quick fix of the security hole.
- *Risk owner:* WP 3 Leader, WP 4 Leader, Task1.4 leader
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* Task4.1, Task4.2

Risk4.4: Other security issues

- *Event description:* Abuse of the CITIZEN MEDIA application of the “ethical issues” that are listed in Chapter 10 in Appendix1
- *Root cause:* Individual people that misuse the applications.

- *Potential impact:* Would have no general impact on the project outcome, if detected right.
- *Risk response:* Fix the security issues and figure out the responsible people.
- *Risk owner:* Coordinator, WP 4 Leader
- *Probability level:* Low
- *Impact level:* High
- *Applicable to the project activity:* Task4.3

Risk4.5: Law issues

- *Event description:* Specific problems with law issues, like breaking copyrights etc.
- *Root cause:* Users using the CITIZEN MEDIA application freely. Unclear legal situation in general.
- *Potential impact:* Should lead to no greater issues at the project outcome, maybe interesting for business modelling.
- *Risk response:* Moderate the content, rethink business models.
- *Risk owner:* WP 4 Leader, Host of Communities
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* Task4.3

3.2.6 WP5 User evaluation of CITIZEN MEDIA applications

Risk5.1: Restricted access to users

- *Event description:* When we can not evaluate the prototypes/applications with the identified users/users groups in WP1.
- *Root cause:* Users do not want to participate in the study or local responsible started to late with recruiting participants
- *Potential impact:* Evaluation delay or evaluation only on a small scale (less users, shorter time).
- *Risk response:* Detailed planning of the recruiting activities
- *Risk owner:* WP4 leader
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* All project activities

Risk5.2: To run late with testbed deployment

- *Event description:* When the applications are not deployed by time in the 3 testbeds, thus leads to a delay of user evaluation.
- *Root cause:* technical problems during the implementation into the testbeds or delay in developing the prototypes/applications.

- *Potential impact:* Such problem could cause a delay in the conduction of the user evaluation and the production of the report, which is also needed as input for other WPs or tasks, like Task5.5 design recommendations
- *Risk response:* refine evaluation procedure
- *Risk owner:* WP2, WP3, WP4
- *Probability level:* Medium
- *Impact level:* High
- *Applicable to the project activity:* All project activities

Risk5.3: No working application in the testbeds

- *Event description:* When for some reasons we will not have a working applications in some of the testbeds.
- *Root cause:* The implementation of the CITIZEN MEDIA applications isn't possible because of technical reasons
- *Potential impact:* This restricts comparison of user evaluation data between testbeds, between different European countries.
- *Risk response:* Iterative communication with testbed responsible with application designers and developers
- *Risk owner:* WP2, WP4
- *Probability level:* Low
- *Impact level:* High
- *Applicable to the project activity:* All project activities

3.2.7 WP6 Business modelling

Risk6.1: Lack of business data

- *Event description:* Financial data or other business sensitive data that are important to assess the viability of business models for user generated media are not available, or can not be made public. This can be the case with data from market players outside as well as inside the project.
- *Root cause:* This type of information is often commercially sensitive and can not be made public.
- *Potential impact:* Business models can not be made completely transparent, not all investments, costs and benefits can be identified.
- *Risk response:* Business models will in this case be described in general, more qualitative terms, identifying possibilities, chances, risks, bottlenecks and successes. Attempts will be made to assess financial aspects on an aggregated level by using publicly available data, if available.
- *Risk owner:* WP6 leader
- *Probability level:* High
- *Impact level:* Medium
- *Applicable to the project activity:* All tasks of WP6

Risk6.2: Unavailable applications

- *Event description:* Applications and services in phase 1 and phase 2 are not fully finished in time or are not sufficiently clear to be able to analyse the full business model and assess its market viability.
- *Root cause:* Delays in development of applications and services in testbeds within CITIZEN MEDIA.
- *Potential impact:* No full and realistic assessment of the market viability of CITIZEN MEDIA applications and services can be made.
- *Risk response:* Complete business models as far as possible and identify what has to improve or become more clear in order to finish the business model.
- *Risk owner:* WP6 leader
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* All tasks of WP6

Risk6.3: Insufficient ICT data

- *Event description:* Insufficient data available of individual EU Member States' markets for user generated media (and related markets for networks, devices etc.).
- *Root cause:* Data on media and ICT markets for all EU Member States are not always publicly available or are hard to compare, because different standards are used. This is especially the case for the new EU Member States.
- *Potential impact:* Results of the project can not always be generalised to all EU markets
- *Risk response:* Qualify the scope, restrictions and validity of the results.
- *Risk owner:* WP6 leader,
- *Probability level:* High
- *Impact level:* Low
- *Applicable to the project activity:* All tasks of WP6

Risk6.4: Neglect business aspects

- *Event description:* Project partners are focused on building the applications and services, making them work technologically and implementing them in the testbeds and therefore have little time to think about, discuss and explore the business opportunities or further dissemination of the services and applications beyond their implementation in the testbeds.
- *Root cause:* differences in focus of project partners
- *Potential impact:* Business modelling work will not become fully integrated in the project.
- *Risk response:* timely identification of problem, involving all partners in WP6 in early stages of the project and showing relevance of business modelling work for CITIZEN MEDIA
- *Risk owner:* WP6 leader
- *Probability level:* Medium

- *Impact level:* Medium
- *Applicable to the project activity:* All tasks of WP6

Risk6.5: Insufficient feedback users

- *Event description:* Insufficient information on how CITIZEN MEDIA applications and services work and are valued by their users.
- *Root cause:* One or more of the CITIZEN MEDIA applications and services will only be developed to the stage of a mock-up or will only be tested and used within small groups within the local testbeds.
- *Potential impact:* Not possible to fully assess market potential of CITIZEN MEDIA applications and services and/or generalize to broader national and international markets
- *Risk response:* Assess market potential on a more general level & qualify scope of the findings.
- *Risk owner:* WP6 leader
- *Probability level:* Medium
- *Impact level:* Medium
- *Applicable to the project activity:* All tasks of WP6

4 FURTHER PLANNING

4.1 WP1 Definition of CITIZEN MEDIA applications and architecture

The critical path for WP1 in the first 18 months is:

- M3: User groups and user communities in countries hosting CITIZEN MEDIA Testbeds (D1.1.1)
- M5: Selecting relevant proxy technologies (M1.3.1)
- M5: First system requirements derived for CITIZEN MEDIA applications (M1.4.1)
- M6: A preliminary version of the socio-economic calendar (M1.4.1)
- M6: Initial contexts and user requirements for CITIZEN MEDIA applications (M1.2.1)
- M6: Outline of a theory on the changing patterns of media usage in Europe (D1.1.2)
- M8: Initial social requirements for CITIZEN MEDIA applications (M1.3.2)
- M9: Initial contexts, user and social requirements for CITIZEN MEDIA applications (D1.2.1)
- M12: Specification of the CITIZEN MEDIA Open Reference Architecture – first version (D1.4.1_V1)
- M12: Socio-economic calendar (D1.5.1)
- M17: Final social requirements for CITIZEN MEDIA applications (M1.3.3)
- M18: A preliminary version of tools and techniques for capturing requirements for users as media content creators (D1.2.2).
- M18: Specification of the CITIZEN MEDIA Open Reference Architecture (D1.4.1)

This information has not been changed with respect to Annex 1.

4.2 WP2 Design of CITIZEN MEDIA infrastructure

The critical path for WP2 in the first 18 months is:

- M8: Service Framework – design (M2.1.1)
- M8: Citizen Media first technological components for application reference framework – design (M2.2.1)
- M10: Service Framework – ready for first integration (M2.1.2)
- M10 Citizen Media first technological components for application reference framework – ready for first integration (M2.1.2)
- M12: Service Framework – end of development (D2.1.1)
- M12: Citizen Media first technological components for application reference framework – first version (D2.2.1_V1)
- M12: Development of testbed application for city event (M2.3.1)
- M14: Citizen Media second technological components for application reference framework – design (M2.2.3)

- M14 Development of testbed application for networked and operational scalability (M2.3.2)
- M16 Citizen Media second technological components for application reference framework – ready for second integration (M2.2.4)
- M18: Citizen Media second technological components for application reference framework (D2.2.1)
- M18: Development of testbed application for user testing (D2.3.1)

4.3 WP3 Concept and experience design of CITIZEN MEDIA applications

The critical path for WP3 in the first 18 months is:

- M6: Needed input from WP1 (D1.2.1 & D1.2.2) to develop prototype(s) of possible application(s) based on state-of-the-art and mature technology (for D3.1.1)
- M10: Selection of relevant concepts to be further developed and evaluation of design methodologies (D3.3.1_V1)
- M12: Application prototype(s) based on existing and non-existing technology (D3.2.1_V1)
- M18: Finishing application prototype(s) based on existing and non-existing technology (D3.2.1) and evaluation of the design methodologies (D3.3.1)

4.4 WP4 Validation of CITIZEN MEDIA applications and architecture

The critical path for WP4 in the first 18 months is:

- M6: First urban community hosting (M4.3.1)
- M6: Hosting of a rural Community in Engerwitzdorf/Austria (M4.3.2)
- M15: First live city event application (M4.3.3)
- M15: Rural application installed into Engerwitzdorf testbed (M4.3.4)

4.5 WP5 User evaluation of CITIZEN MEDIA applications

The critical path for WP5 in the first 18 months is:

- M4: Needed input from WP1 about user requirements for creating the evaluation plan.
- M6: Access to users in Cologne (grassroots content generation) to do user evaluations.
- M5 and M7: WP3 starts concept design – concept and prototype evaluation should be done in the same way in all design locations.
- M12: access to CITIZEN MEDIA applications to specify detailed evaluation strategies and methods.
- Timely deployment of the CITIZEN MEDIA applications into the testbeds, so that there is enough time for user evaluation

4.6 WP6 Business modelling

The critical path for WP6 in the first 18 months is:

- M6: Input for D6.1.1 from CITIZEN MEDIA project partners, in particular WP1-5, on business modelling framework
- M8: Input on business models from CITIZEN MEDIA project partners involved in phase 1 services, applications and testbeds for D6.2.1
- M14: Input on business models from CITIZEN MEDIA project partners involved in phase 2 services, applications and testbeds for D6.3.1
- M25: Input on vision document from CITIZEN MEDIA project partners, in particular WP1-5 in order to validate WP6 conclusions on business models, bottlenecks & road maps for user generated media.

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