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Exploring Europe's Television Heritage in Changing Contexts

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Author(s)	<i>Sonja de Leeuw, Johan Oomen, Quirijn Backx</i>



eContentplus

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a multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

¹ OJ L 79, 24.3.2005, p. 1.

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1 Project Objectives

1.1 *EUscreen major aim and result*

The major objective of EUscreen is to stimulate the use of television archive content for the widest range of European user constituencies and communities and thus to advance active engagement with the cultural memory of Europe both at a national and a European level. Through its synergy with Europeana, EUscreen enables alignment of European audiovisual content with the digitised cultural heritage of Europe.

EUscreen will achieve this by building a highly interoperable digitised collection of television material, which supports the exploration of Europe's television heritage in changing contexts. A critical mass of audiovisual content and its metadata will be made accessible through the EUscreen platform. EUscreen investigates, exploits and extends existing tools in order to create a highly interoperable environment to enable content sharing among the EUscreen partners and with Europeana, for which EUscreen will deliver the audiovisual component.

Solutions for contextualisation from a comparative European television perspective will be proposed through the development of editorial mechanisms and the development of user-led activities such as rating and tagging systems, blogs etc, to support use of programme content. In developing such demand-led access, the project aims to create appropriate conditions for multicultural and multilingual access and use of audiovisual (television) content. Through investigation of user specifications, EUscreen will develop and evaluate use case scenarios for using content for research, learning, and leisure and creative re-use regardless of the language and cultural boundaries. Furthermore the content will be analysed and contextualised in a European perspective in an e-journal.

1.2 *EUscreen Approach and Work plan*

As a Best Practice Network for interoperability EUscreen proposes the following solutions for achieving a highly interoperable digitised collection of television material, which supports the exploration of Europe's television heritage in changing contexts:

1. EUscreen recruits as many as possible of the relevant European stakeholders in the television domain that at present are 'doing it alone'. At a conceptual level it will investigate the metadata level of these stakeholders so as to define the common metadata schema that needs to be achieved to make interoperability feasible. It will build upon the EBU Core and upon the Video Active metadata schema, both of which need reinvestigation and review for purposes of interoperability.
2. A critical mass of audiovisual content and its metadata will be made accessible through the EUscreen platform. In order to achieve semantic linking with Europeana, EUscreen will be fully compliant with the functional specification defined by Europeana². Moreover, a metadata export system will be developed enabling access of e-learning, leisure and research

² Note that EUscreen consortium members are active contributors to the technical Work Packages of Europeana V1 (the core project).

applications of European television heritage in external applications.

3. In developing demand-led access with the help of, for example query logs and a web-based tagging system, the project creates appropriate conditions for multicultural and multilingual access and use of audiovisual (television) content. Through investigation of user specifications, EUscreen develops and evaluates scenarios for applied use cases for using content for research, learning and leisure and creative re-use regardless of the language and cultural boundaries.

4. EUscreen proposes a pragmatic approach to the issue of rights and will draw on experience of the Video Active project to select, clear and deliver digitised programme content that is not hindered by restrictive IPR legislation, rules, precedents or contracts. In order to innovate and develop harmonised and long-term solutions to variable and complex IPR restrictions a working group has been formed to focus on IPR issues and solutions. On top of that, EUscreen reviews and assesses nation-specific IPR limitations and their implications for EUscreen and for wider user-communities. In order to support the future creative reuse and exploitability of television content from audiovisual archives, EUscreen will map the future possibilities, requirements and best practices regarding rights issues and open content licensing in open culture production through scenario work and limited experiments with real user communities.

5. In order to make archive content understandable and meaningful, all content will be accompanied by detailed descriptions of its original source and how it appeared (for example, TV channel, programme and schedule details; script material; lost material such as live and unrecorded introductions; information and documentation from other relevant broadcasting stakeholders such regulators or trade unions). Users will also be invited to contribute further material (e.g. reminiscences of watching television programmes, or working on its production, links to press articles, books, and existing course materials).

6. EUscreen consortium members have organised themselves into four topic-driven working groups (WG). Each WG provides (under the responsibility of its leader) materials, guidelines and an exhaustive coverage of major topics of interest in the field of access and use of audiovisual content, and television content in particular. More specifically, each WG contributes to the organisation of all the public activities of the Network, such as workshops and conferences, deciding the topics of interest and providing relevant speakers and materials for these events.

EUscreen's work plan is divided into seven work packages (WPs) each of which represents an important part of the work to be performed during the project. The WP titles are as follows:

- WP1 Project Management
- WP2 Network activities
- WP3 Information and Access
- WP4 Semantic Access and Integration
- WP5 Use Case development
- WP6 Validation of applications
- WP7 Awareness and Dissemination

The main structure of the project management structure can be seen in the diagram below.

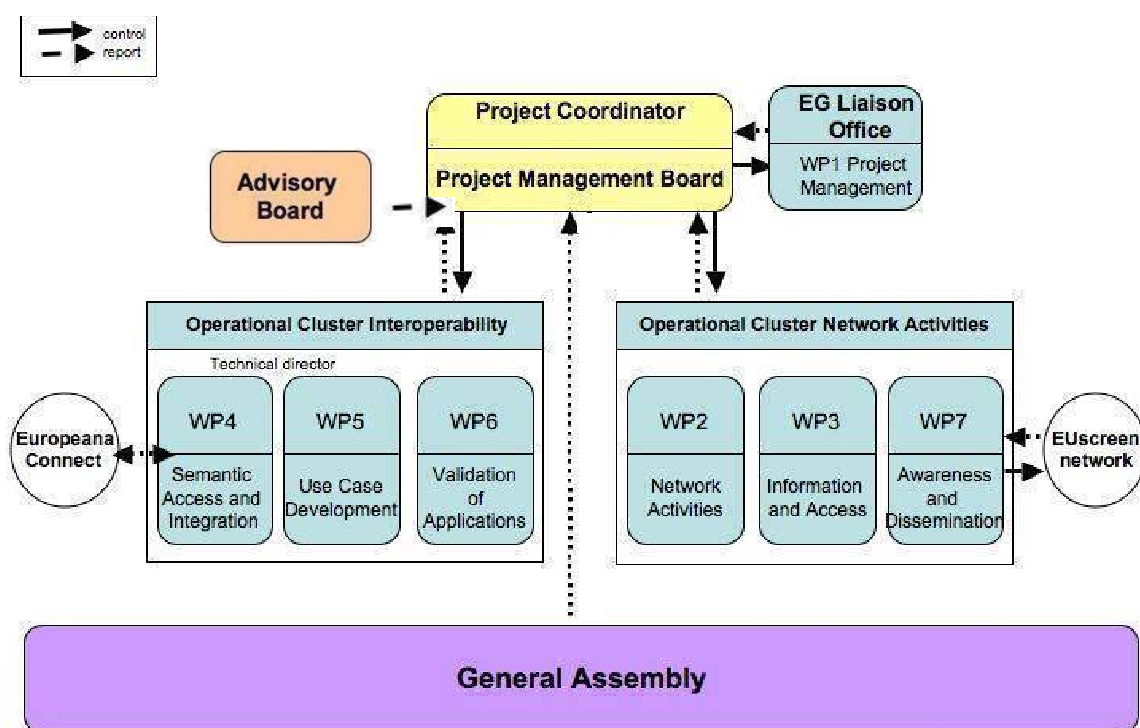


Figure 1: Project management structure

The work plan reflects a step-by-step approach towards the launch of the online portal. The step-wise approach does not indicate that each work package will only begin once the previous one has been terminated, since several WPs commence simultaneously and will feed into each other. To help manage and organise the process, the 36 months work plan is structured into four phases. These four (interrelated) steps will be completed in a cycle as detailed below:

1. User requirements and metadata schema definition M1-M8
2. Interoperability guidelines and system development M1-14
3. First integrated system and first user scenario field trials M15-22
4. Feedback, adjustment and second user scenario field trials: M23-36

Name		Key outcomes
A	Initial investigations and project establishment	Milestone 1
B	Requirements defined for first version of the portal	Project Website, Quality Assurance Plan, User Group Definition, First assessment of metadata standards used.
C	Interoperability guidelines and system development	Milestone 2
		D5.2 Initial user requirements (M6)
		Definition of the EUscreen interoperability guidelines (including common metadata schema) and Functional specifications. Definition of content selection policy. Delivery of D3.1 Content selection, metadata and technical

		handbook and glossary. After assessment of metadata schema and regional workshops.
D	First version of the Euscreen portal	Milestone 3 Launch of first integrated EUscreen portal, including securing full interoperability with Europeana. Delivery of D4.3 First version of the EUscreen system (M14). First batch of items online. First user scenario field trials.

Cardinal, overarching activities regarding content selection (notably WP3) and networking activities (WP2) run in parallel to these phases. Each phase finishes with a major milestone, signed off by the Project Management Board. All the major deliverables are tied to milestones, to facilitate technical and Consortium management, risk assessment and planning any corrective action.

1.3 *EUscreen and eContentplus*

The overall aim of the *eContentplus* 2008 programme is *'to make digital content in Europe more accessible, usable and exploitable'*.

Action 5.1 *Best Practice Networks for interoperability of digital libraries* aims at improving interoperability of digital libraries held by museums, archives and libraries across a large numbers of EU member states making them accessible through Europeana. Moreover the case for digital libraries is to support Europe to be present in the cultural and creative industries of the 21st century; to enable development of value-added services for research, learning and leisure; and to allow citizens to access collective European heritage. In order to be able to achieve this more content should be prepared for inclusion in Europeana.

Finally, a Best Practice Network for interoperability of digital libraries should address issues relating to standard-based interoperability between digital objects and collections and cross-cultural search and retrieval of digital content held by major cultural institutions.

EUscreen is of direct relevance to these aims as:

- EUscreen brings together a critical mass of already digitised television archive content coming from across Europe, able to constitute a true European data collection.
- The content will be made available through Europeana; the two metadata sets will be made interoperable (supporting syntactic, semantic and multilingual interoperability). The content itself is of enormous public interest. Television images are witnesses of our past and present and, as such, they are indispensable components of national identity. At the same time television images give meaning to our place in the 'global village' and in the European public sphere. The television archive content that EUscreen will offer represents access to the cultural history (and memory) of European nations (and collective European experience).
- EUscreen creates access to this content through a multilingual portal supporting the languages of the content providers in the consortium, also ensuring interoperability with other collections.
- Usability of the selected content will be enhanced through the development of online tools for specific user groups in four fields: (1) research, (2) learning, (3) leisure/culture heritage and (4) creative reuse. These will be tested and provided as best practice applications for using digital audiovisual (broadcast) material.



- The content will have rich metadata, based on commonly developed metadata schema.
- The EUscreen portal will be based upon established standards and offers good and efficient search capabilities at a cross-European level for well-defined user groups that will be supported to actively engage with the selected content.
- The access to the EUscreen data is free. In order to deal with copyright issues in a sensible manner it will use the expertise gained with the Video Active project. To cope with matters of restrictions it uses a flexible technical architecture, allowing material to be physically located in any of the partners' locations as well as supporting streaming from the central website server. Besides this pragmatic approach, EUscreen will develop strategies and solutions for dealing with complex right issues.
- It is innovative in that it enables a truly European cross-cultural exploration of a huge amount of audiovisual content, while at the same time facilitating the exploitation of information and intelligence provided by users. This requires technology to support interoperability and creative participation.

2 Consortium

The EUscreen consortium consists of 28 core partners and 8 associate partners from 19 European countries. This includes stakeholders, technology partners, libraries, and expertise in e-learning, research, contextualization and the development and participation of user groups. The archives will supply their digital content; the universities are the link to end-users and play an important role in developing a strategy for selecting the content and in delivering the necessary context information. The ICT developers will be responsible to supply the technology needed. The project partners operate at national and international levels and their expertise and backgrounds are complementary. This will guarantee the uptake (‘multiplier effect’) of the proposed solutions. The networking activities will be developed to share the expertise available in the consortium both among its members and among relevant parties outside the consortium.

2.1 Core consortium



Figure 3: EUscreen consortium

EUscreen consists of 28 partners playing the following roles:

- Utrecht University is the overall **coordinator** of the project.
- **Seventeen archives** are represented in the consortium: [Danmarks Radio](#), [Deutsche Welle](#), [Hellenic National Audiovisual Archive](#), [Institut National de l'Audiovisuel](#), [Cinecittà Luce](#), [Osterreichische Rundfunk](#), [Radiotelevisione Italiana](#), [Radio-Télévision Belge de la Communauté Française](#), [Raidió Teilifís Éirann](#), [Radiotelevizija Slovenija](#), [Kungliga Biblioteket](#), [Televisió de Catalunya](#), [Telewizja Polska](#), [Televiziunea Română](#), [Vlaamse Radio & Televisie](#) and [Nederlands Instituut voor Beeld en Geluid](#). Eighteen archives deliver content and metadata. Some of these also have responsibilities for WPs, such as Luce (WP2 Network Activities), KB (Validation of Applications) and S&V (Awareness and Dissemination) and one has responsibility for implementing and monitoring of content selection policy, metadata schema and delivery of content (BUFVC).
- **Eight research partners** ([ATiT](#), [ELTE](#), [National Technical University of Athens](#), [Royal Holloway University of London](#), [TAIK](#), [Utrecht University](#), [Maastricht University](#) and [British Universities Film & Video Council](#)), three of which are responsible for developing content selection policy, for a review and revision of the Video Active metadata schema and content selection policy as well as for contextualisation (RHUL in co-operation with BUFVC, UU and MU). The research partner TAIK is responsible for the uptake of IPR issues and developing a strategy for short-term, mid-term and long-term solutions. ELTE is responsible for the development of scenarios for use cases of cultural television content in different contexts. The research partner ATiT contributes to developing these scenarios for use cases in educational contexts in particular. The technical research partner (NTUA) will be responsible for establishing the requested levels of interoperability, also with Europeana, including semantic processing.
- **Two technical partners** ([European Broadcasting Union](#) and [Noterik](#)); Noterik is responsible for developing EUscreen web services and system integration and EBU for developing guidelines for metadata interoperability and integration.
- **Participant Europeana** ([Europeana Foundation](#)) provides a gateway to the cultural heritage network and contributes to the establishment of interoperability.

2.2 Associated members and Advisory board

EUscreen has eight associated members: [FIAT/IFTA](#), [AthenaWeb](#), [AAMOD](#), [Politecnico di Torino](#), [Audiovisual library of the EC](#), [DIVERSE](#), [Memoriav](#) and [BBC](#).

In addition the project has agreed on the installation of an **Advisory Board**. This group will meet twice during the duration of the project, with a formal agenda related to the project progress and to exploitation trends and questions. As the members of the Advisory Board represent important areas in the field on which EUscreen plays, they are expected to offer reality checks and to advise independently in all relevant matters that EUscreen will address. Members of the advisory board are: Peter Kaufman (Intelligent TV), Harald Mayer (Joanneum Research), Sue Malden (FOCAL), Georg Eckes (European Film Gateway), Poppy Simpson (BFI), Paulo Villegas (Telefonica) and Bert Mulder (The Hague University).

3 Project Results/Achievements

The project marks the following milestones:

Milestone number	Milestone name	Date	Means of verification
M1	Initial investigations and project establishment	M3	Project Website, Quality Assurance Plan, User Group Definition, First assessment of metadata standards used.
M2	User requirements and metadata schema	M8	Definition of the EUscreen interoperability guidelines (including common metadata schema) and Functional specifications. Definition of content selection policy.
M3	Integrated system and first user scenario field trials	M14	Launch of first integrated EUscreen portal, including securing full interoperability with Europeana. First batch of items online. First user scenario field trials.
M4	Feedback, Adjustment and second user scenario field trials	M24	Results from first field trials are studied and incorporated in updated EUscreen portal. Second batch of items online. Second round of field trials. Establishment of the EUscreen foundation.
M5	Best practice definition and completion	M36	Results of second field trials incorporated in definition of Best Practice. Delivery of the EUscreen core collection of European television heritage. Final Conference.

Table 1: EUscreen Milestones

In the first year, milestones 1 and 2 were achieved as planned. This includes the following key outcomes:

- Project Website,
- Quality Assurance Plan,
- User Group Definition,
- First assessment of metadata standards used
- A report on user group definitions and initial user requirements (D5.1)
- Definition of common metadata schema
- Definition of functional specifications
- Definition of interoperability guidelines (including common metadata schema)
- Definition of content selection policy
- Functional specifications and portal architecture (D4.1)
- Content selection guidelines and metadata definition (D3.1)
- Report on translation of EUscreen metadata on semantic web language (D4.2)

Furthermore EUscreen organised two workshops as part of its Networking Activities. It was able to attract relevant parties from outside the consortium and at the same time the workshops involved the consortium members and fed back into decision making on content selection, metadata schemas and contextualisation.

4 Target Users & their Needs

Various user groups will benefit from the outcome of the project as described in the table below that summarises the target users and their needs.

The country coverage for all target users includes the countries covered by the EUscreen consortium; i.e. 18 member states plus Switzerland. This number is to be extended as the network grows.

Target user description	Needs	Involvement & Role
PUPILS AND TEACHERS IN PRIMARY EDUCATION	Studying digital resources related to courses. Knowledge about how to look for audiovisual information on the Internet for both pupils and teachers. By assisting in finding attractive material for that age, pupils will learn how and what to look for when audiovisual material is needed in education. Teaching staff explores media resources in order to use them in support of their teaching practise, and to recommend their usage to pupils.	External experimental groups
STUDENTS AND TEACHERS IN SECONDARY EDUCATION	Knowledge about how to find and use audiovisual material for homework, and research projects. Selecting and grouping information about relevant audiovisual material will help this target group to get used to on-line audiovisual archives in learning. The end users are obviously the students in the schools; usage of pedagogical materials is guided by the teachers looking for suitable media material on subjects such as history, art, media and so forth and in language teaching.	External experimental groups
HIGHER EDUCATION AND ACADEMIC RESEARCH	Studying differences between various cultures, comparative research on media coverage. Large amount of audiovisual material with versatile metadata easy to use for research. EUscreen will allow academic researchers to find any programme content they are looking for in the catalogues of any of the project partners' archives. This will allow them to access that content via traditional or online routes. Where programme content is available online it will be in a high quality format, in its original form, systematically searchable and supported by contextual information.	Partner in the consortium (academics). External consultation (ETHN). External experimental groups (higher education and academics).
MEDIA PROFESSIONALS	Cross cultural research, knowledge about a foreign country's media scenery. By making available a large number of audiovisual material of many country's television programmes, in different languages, media professionals will be able to compare coverage of various events in different countries, assess each country's media policies, get information background of	External group, part of network.

	specific events, etc.	
GENERAL PUBLIC	Better knowledge of a European country. By having access to a foreign country's television programme in its own language, virtual and real travellers will be better informed about the cultural life of the given country. Creative use and remix into user-generated content.	Registered users on the EUscreen portal External experimental groups.
CULTURAL HERITAGE INSTITUTIONS (E.G. MUSEUMS, CULTURAL FESTIVALS, LIBRARIES)	Increase revenues of their copyrighted material in new publications (documentaries, textbooks, etc.); Combine wide ranges of different knowledge sources to establish new insights; Enabling the creation of large inter-archival exhibitions thus adding new meaning or making them accessible to a different or larger audience;	Partners in the consortium Active organisations in Europeana

Table 2: Summary of target users and their needs

4.1 Critical Mass

EUscreen not only has major networking capacity, it also brings together an unrivalled collection of European audiovisual archive material. This will ensure the critical mass necessary to demonstrate the added value of using the proposed standards to the collection owners throughout Europe. It is the very first time this collection will be brought together.

The more than 180 collections of the 17 archive partners comprise 20,5 million items of video and radio programmes, and another 10,8 million stills. They are involved in migration projects and currently exploring how to make (parts of) their rich assets accessible through the Internet. Some of the archives are true frontrunners in this field; others have just started this activity. The amount of content to be contributed through EUscreen can be seen as a critical mass considering the fact that the bulk of archival collections still has not been digitised or cannot be made available before copyright agreements have been drawn up. EUscreen aims to make >35.000 television items available through the EUscreen portal and through Europeana. And additionally, thousands of digitised documents and stills that provide contextual information, the so-called 'EUscreen core collection of European television heritage'. This constitutes a critical mass for making a proof of concept for unified access to digitised items (using EBU Core as one of the basic components).

4.2 User group definitions and initial user requirements

The Deliverable D5.1 *User group definitions and initial user requirements* covers issues related to the general definition of the user groups that are targeted as the most likely users of the EUscreen portal. The aim of this definition is to be able to extract the functional user requirements for the front-end stemming from the specific use cases related to these user groups, the technical development has to comply with.

With a view to the development of use case scenarios we have defined four focused fields (Learning, Research, Leisure and creative-reuse) each listed with more specified type of users. In total 15 different groups of users were identified:

Learning

- Pupils of primary/secondary education
- Parents of pupils of primary/secondary education
- Teachers of primary/secondary education
- Curriculum developers of primary/secondary education
- Policy makers of primary/secondary education

Research

- Academic researcher affiliated
- Academic researcher non affiliated
- University student
- University professor

Leisure/cultural heritage

- General user
- Librarian
- Curator
- Archivist

Creative re-use

- Artist
- Media professional

The methodology of use case definition and user scenario development was exposed and explained. An itinerary from use cases to user scenarios was drawn together with a template for user scenarios. Functional user requirements were extracted from results of research and experiments (for instance in focus group meetings) and also from previous experiences of EUscreen partners. A list of main use cases and technical requirements was built including a prioritization of functional user requirements to help starting system design, i.e. defining technical specifications and designing wireframes.

Futhermore, a market analyses was conducted (by Sound and Vision), providing more insight in expectations of users.

5 Underlying Content

5.1 EUscreen architecture

The functional specifications have been produced based on the 3 regional workshops that have been organised on the framework of WP3 and WP4 and on the collaboration of the 2 main technical partners, NTUA and NOTERIK. EBU, TAIK and Sound and Vision also contributed to this activity. In a number of face-to-face and virtual meeting between the technical partners and taking into account the portal design, the functional specifications have been finalised. The EUscreen system comprises of the back end and front-end tools. The back-end components are responsible for ingesting and preparing the metadata to be presented in the EUscreen portal and also make them available to Europeana.

The figure below shows the EUscreen architecture.

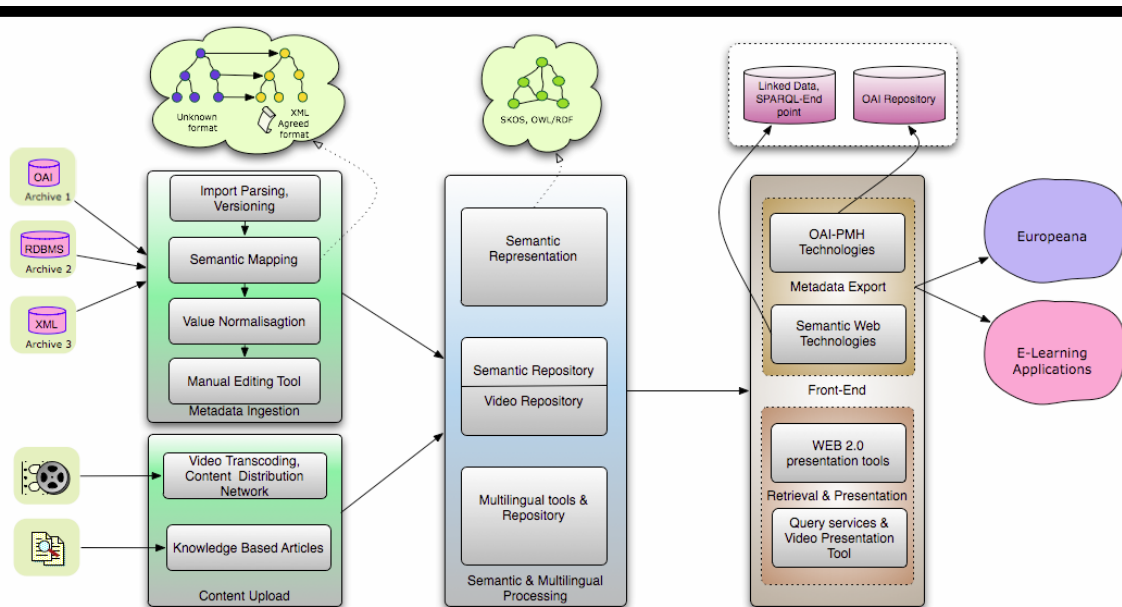
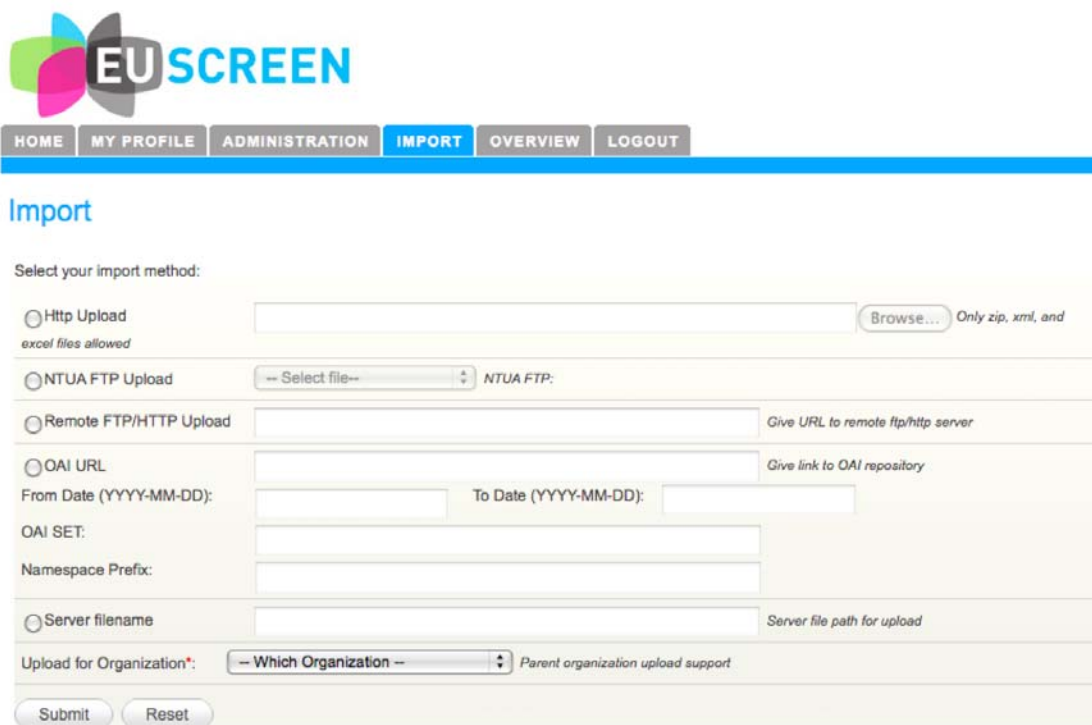


Figure 4: EUscreen architecture

The back-end components are used to aggregate metadata from a diverse group of cultural heritage content providers, homogenise and align them with an established metadata schema standard that guarantees semantic interoperability. Functionality includes a user and organisation management scheme that supports appropriate user roles and access rights for simple organisations, import of arbitrary metadata schemes used by providers and serialised in xml, a statistical module for input data sources, a visual mapping module that functions as an xslt, transformation of imported data sources, publishing and exposing aggregated metadata in standard metadata schema.

The figure below is the main interface of the import service (one of the back-end components).



The screenshot shows the 'Import' page of the EU SCREEN portal. At the top, there is a navigation bar with buttons for HOME, MY PROFILE, ADMINISTRATION, IMPORT (highlighted), OVERVIEW, and LOGOUT. Below the navigation bar, the page title 'Import' is displayed. The main content area is titled 'Select your import method:' and contains several options, each with a radio button and associated input fields:

- Http Upload:** Includes a text input field, a 'Browse...' button, and a note 'Only zip, xml, and excel files allowed'.
- NTUA FTP Upload:** Includes a dropdown menu labeled '-- Select file--' and a label 'NTUA FTP:'.
- Remote FTP/HTTP Upload:** Includes a text input field and a label 'Give URL to remote ftp/http server'.
- OAI URL:** Includes a text input field and a label 'Give link to OAI repository'. Below this are two date input fields labeled 'From Date (YYYY-MM-DD):' and 'To Date (YYYY-MM-DD):', followed by an 'OAI SET:' input field and a 'Namespace Prefix:' input field.
- Server filename:** Includes a text input field and a label 'Server file path for upload'.
- Upload for Organization*:** Includes a dropdown menu labeled '-- Which Organization --' and a label 'Parent organization upload support'.

At the bottom of the form, there are two buttons: 'Submit' and 'Reset'.

Figure 5: Interface of the import service

The front-end tool incorporates the construction of the EUscreen portal functionalities including transcoding and play-out of the digital content. NTUA is responsible for the construction of the back-end components and NOTERIK for implementing the wireframes (see images below), designed by TAIK, support video playout and integrate the search engine. The development of these tools is based on the functional requirements. The first prototypes of the tools were presented in the workshop in Greece in June. The pilot-testing phase of the back-end components started in July and ended in October 2010.

The EUscreen portal contains a variety of services to satisfy the needs from the different user groups. It will provide a multilingual interface, audiovisual asset management options, transcoding functionalities plus miscellaneous search and browsing functionalities.

On the next page figure 6 provides the graphic design of the wireframe front-end.

PAGE TITLE AND VERSION: main v02
 DATE: 02.07.2010

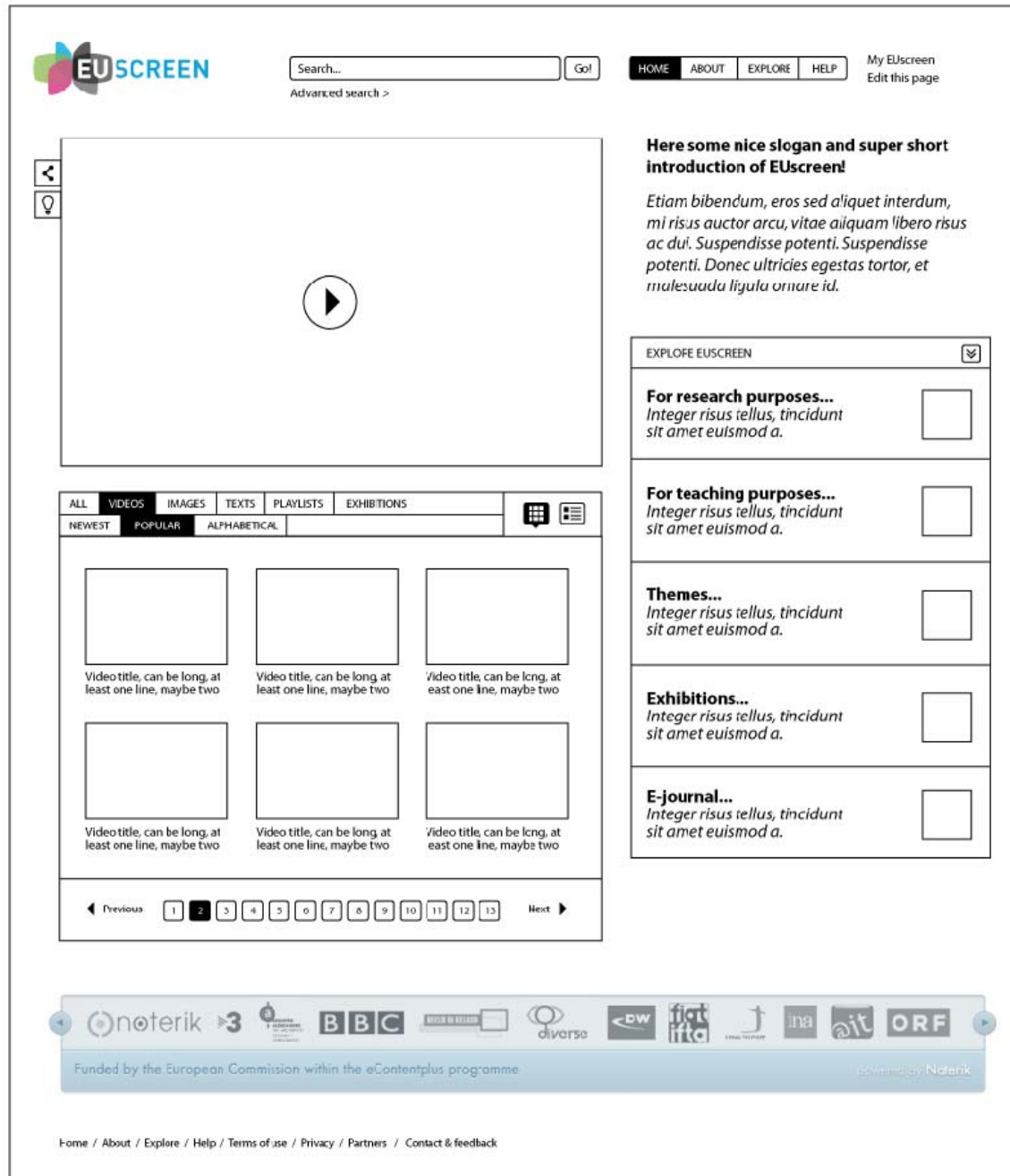


Figure 6: Wireframe front-end.

PAGE TITLE AND VERSION: Exhibition - Editor v01
DATE: 07.07.2010

The wireframe gives an overview of an exhibition editor that does not proceed in wizard steps, but rather provides all editing functions at all times. This type of editor might suit people with some experience in editing presentations, layouts etc. but might be too overwhelming for beginners. The suitability of the editor with the timeline template and other different types of templates need to be thought in more detail. The editor should also provide functions such as removing pages/media items etc. and an option to move content from one page to another.

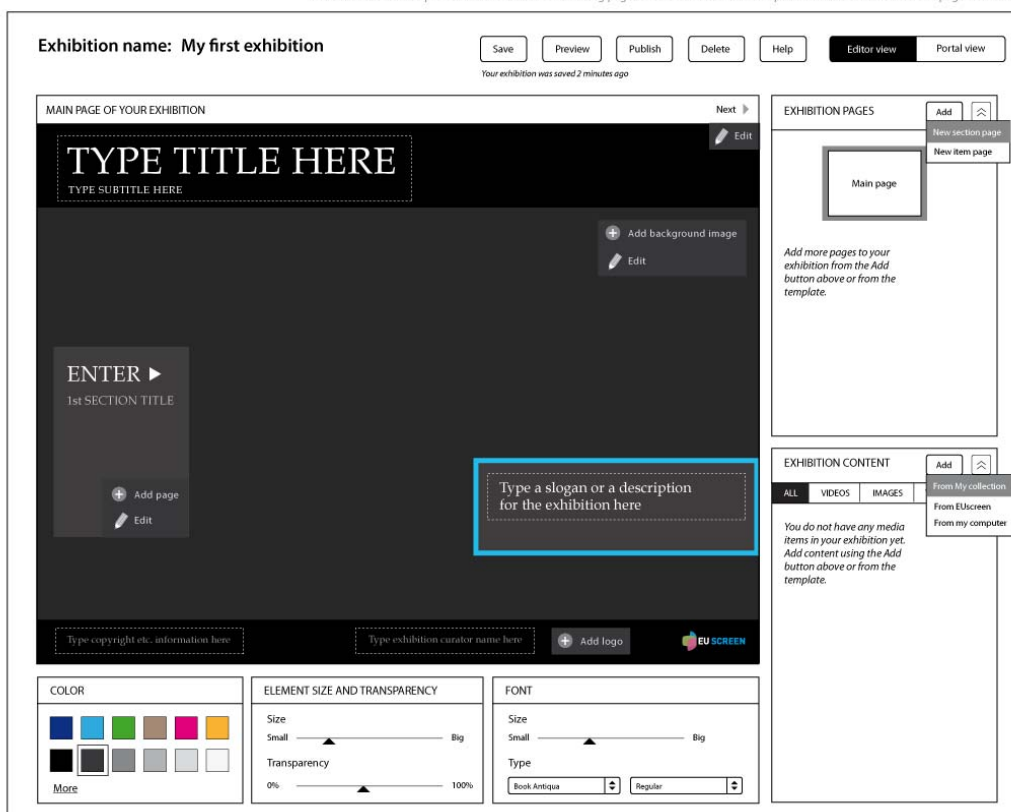


Figure 7: Wireframe Virtual Exhibition.

EUscreen delivered a public report on the translation of EUscreen metadata on a semantic web language. The EUscreen ontology will be used for storing, presenting and searching the metadata. The use of semantic web technologies can improve the search functionality and the alignment with external web resources enabling automatic metadata enrichment. The recent advances in Semantic Web technologies facilitate the way audiovisual archives (in general cultural heritage institutes) are representing their knowledge in a machine understandable language. In this way, web services can have access in the meaning of the information and provide useful services such as semantic search and alignment with external web resources using Lined- Open-Data technologies. The ontology created in the PROTÉGÉ ontology editing tool and has been exported in RDF/XML and OWL formats.

The aim is to extract the functional user requirements for the front-end stemming from the specific use cases related to these user groups the technical development has to comply with. Working group 4 held 2 meetings in the first year in Paris (November, 2009) and Amsterdam (March, 2010).

5.2 Content selection guidelines and metadata definition

The content selection policy for EUscreen will be divided into three strands. These are:

1. **Historical Topics:** 14 important topics in history of Europe in the 20th Century. (70% of EUscreen content).



Historical Topics

Arts and Culture	National Holidays, Festivals, Anniversaries, Annual Events
Disasters	Politics and Economics
Education	Religion and Belief
Environment and Nature	Society and Social Issues
Health	Transportation, Science and Technology
Lifestyle and Consumerism	Wars and Conflict
The Media	Work and Production

Connected to:



Funded by the European Commission within the eContentplus programme

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2. **Comparative Virtual Exhibitions:** Two topics to be confirmed that will take a more collaborative and comparative approach to selecting and presenting audio-visual material (10% of EUscreen content not included elsewhere in EUscreen). Three themes have been defined: 1. East European television versus West European television, 2. Television history and 3. National identity and ‘Europeanness’.
3. **Content Provider Virtual Exhibitions:** Each content provider will be able to select their own content, and support it with other digital materials and textual information, on a subject(s) or topics(s) *of their own choosing*. (20% of EUscreen content not included elsewhere in EUscreen).

The actual specific amount is dependent on how many items of content each provider has promised to EUscreen, and this is discussed and monitored in liaison with. Content providers select their own content for their own exhibition that will reflect the Content Providers’ own interests and archival strengths. The content is supported by a range of contextual information (including still images, documentation and text).

Several questionnaires have taken place within the consortium. In November/December 2009 two questionnaires were sent to all content providers, one on content holdings and IPR and one on local metadata. In February 2010 a consultation meeting took place with WP3/WP4 and EBU. Three regional workshops in took place in London, Barcelona, Budapest (February

2010). Additionally a EUscreen workflow questionnaire was sent to all content providers in May 2010.

EUscreen metadata schema includes 39 elements (18 mandatory elements) that are based on EBUcore schema that are backward compatible with the Video Active schema and fully mappable to EDM 5.2.

Programme classification in EUscreen is broken down into seven main headings for reasons of simplicity and scalability. The details of the subheadings for each field are below.

- **News:** Including news bulletins, news magazine programme, politics programmes, current affairs, newsreels, discussion programmes about events in the news, feature programmes about events in the news, elections, party conferences, political speeches, political broadcasts, live (outside broadcasts) of state occasions.
- **Drama/Fiction:** Including series drama, serial drama, single drama (teleplays), cop/police/detective/crime dramas, soap opera, telenovela, family sagas, docudrama/drama-documentary, animated drama, telefantasy and science fiction.
- **Entertainment and performing arts:** Including comedy, stand-up comedy, situation comedy, sketch shows, political comedy, satire, cartoons (for adults and/or children) quiz and game shows, celebrity talk shows, variety shows, cabaret, dancing shows, talent competitions, music programmes and concerts (popular and classical), ballet, pantomime and mime.
- **Factual Programming:** Including documentary (observational/fly-on-the-wall), 'reality' television, docu-soap, historical programmes, science programmes, natural history programmes, biographical documentaries, government information films, documentaries about the arts, travel programmes, lifestyle programmes about shopping, cookery, fashion, homes, gardens and hobbies.
- **Advertisements:** Including all commercial advertisements for consumer products and services.
- **Interstitials and trailers:** Including trailers for future programmes and events, and channel idents and logos, continuity announcements.
- **Sport:** Including regional, national and international sporting events

6 Summary of Activities

The project has had a very good first year. EUscreen was able to reach all the objectives described in the Description of Work for the first year. The milestones were achieved as well as the performance indicators. Work Package leaders are very much engaged in EUscreen and are taking up and finalising tasks as scheduled; because of the many interdependencies co-operation is permanently requested. Exchange and communication are well established.

All consortium partners have engaged themselves with the project. The feeling in the project is that a lot has already been achieved. This holds especially given the complexity of bringing such a large number of partners together and the complexity of dealing with different archives, and cultural traditions. Also the selection policy on content clearly had to be channelled more than might have been understood from the outset given the complexity of rights in individual partner archives. A lot of effort has been put into investigations into the content providers' holdings, the proposed selection strategy and into supporting them with organizing their internal work flow. Helpdesks are made available to consult on content/metadata issues and on technology (working with the tools). Partners are now prepared to start uploading content and using the tools.

6.1 Activities in the second year

The activities that will take place in the second year of the project are mostly directed towards Milestone 3: an integrated system and first user scenario field trials. The launch of the first integrated EUscreen portal, including full interoperability with Europeana, will be online in January 2011.

First user scenarios in the focused fields will be ready to be assessed and to be tested in field trials (WP5 + WP6)

Virtual Exhibitions are to be further developed.

The E-journal (form, business model etc.) will be developed.

The next steps towards best practice scenarios for use cases are discussing methodology of testing with WP6 Validation and applications (D6.1.1 and D6.1.2 *Initial report on system evaluation*), increasing educational, cultural and creative value and linking to testing in real life environment (selected schools in various countries).

Additionally dissemination and network activities are ongoing. Some of the forthcoming networking activities are the organisation of an Open Workshop on IPR issues in collaboration with PrestoPrime in March 2011 and the organisation of the Second EUscreen International Conference in Stockholm in September 2011. EUscreen will keep on maintaining clustering activities with Europeana and FIAT/IFTA.

In the second year of the project EUscreen will establish the EUscreen foundation.

7 Impact & Sustainability

7.1 Dissemination

Deliverable D7.3 *First Communication and Dissemination Plan* lists the planned dissemination activities and its execution. The table below shows the reach of the EUscreen Network.

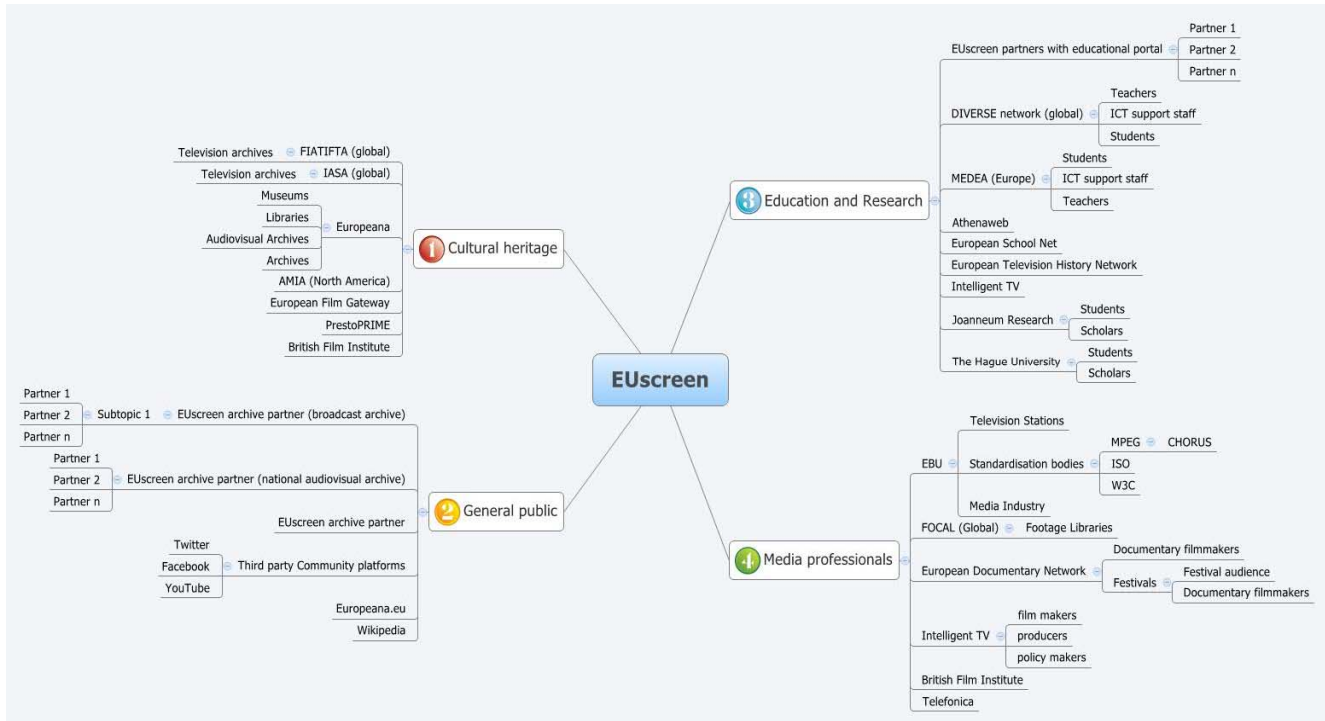


Figure 8: Reach of EUscreen network

Regarding networked activities we have set up four working groups on

- 1) metadata standards and interoperability,
- 2) rights issues,
- 3) digitisation policies and guidelines and
- 4) new service development and business models.

Each consortium partner joined at least one working group.

7.1.1 Execution

Not every target group can be reached with the same dissemination means. The matrix below shows which means will address which target group.

- = no impact
- o = some impact
- + = high impact

Target group	Primary education: pupils	Primary education: teachers	Secondary education: students	Secondary education: teachers	Higher education/ academic research	Media professional s	Cultural heritage institutions	General public
Means								
Project website	-	0	-	0	+	+	+	0
RSS feeds/ mailing lists	-	0	-	0	+	+	+	0
Portal	+	+	+	+	+	+	+	+
Stickers	0	0	0	0	+	+	+	+
Flyers	-	+	0	+	+	+	+	0
Gadgets	-	0	-	0	+	+	+	0
Promotional video		+	0	+	+	+	+	+
Multimedia project presentation	-	0	-	0	+	+	+	-
Twitter	-	0	-	0	0	+	+	+
Facebook	-	0	-	0	0	+	+	+
Wikipedia	0	+	+	+	+	+	+	+
YouTube	-	+	0	+	0	0	0	+
Research/ educational networks	0	+	0	+	+	-	-	-
General public networks	-	0	-	0	0	0	0	+
Media professional networks	-	-	-	-	0	+	0	-
Cultural Heritage Networks	-	-	-	-	0	0	+	-
Conferences & Workshops	-	-	-	-	+	0	0	-
Events	+	+	+	+	+	0	0	-
Publications	-	-	-	-	+	+	+	-
Documentary	-	0	-	0	0	+	+	+
Awards	-	-	-	-	-	+	+	0

Table 3: Overview of which dissemination mean addresses which target group

7.1.2 Organisation

An editorial board was formed during the first six months of the project, consisting of partners with more than two months of dissemination. The editorial board is chaired by the WP7 leader and is responsible for updates about EUscreen on the project website, the network activities on the social media platforms and gathering relevant news and updates from other related projects, networks and institutions. All partners are invited to contribute to the project website, papers, conferences and workshops and are asked to undertake at least one dissemination activity per user group.

7.1.3 Measuring impact

The project has described a number of success indicators relating to accessibility and networking. Underneath a description of the methods that will be used to measure these indicators.

1. Google analytics: monitoring the number and behavior of visitors on the portal and things like click-throughs from Europeana, Google, Wikipedia, etc.
2. Social media: monitoring the members on Facebook and the number of followers on Twitter.
3. EUScreen network: monitoring the statistics from the organized conferences, like the number of conferences and workshops, the number of visitors and the number of contributions.
4. Visibility of EUScreen: keeping track of publications in journals, print and web references and contributions to conferences.

7.1.4 Workshops in year 1

In the first year two workshops were organised:

1. **Content enrichment and contextualisation in EUScreen** (*London, 17 May 2010*)
2. **Metadata schemes and content selection policies in the AV domain** (*Mykonos, 23-24 June 2010*). More than 60 participants from all over Europe participated. This workshop included presentations from Europeana v1.0, EFG, PrestoPrime, W3C Media Annotation Group, EBU and others relevant FP7 projects. A full report and all the presentations and video recordings can be found on-line at www.euscreen.eu.

Besides workshop there were clustering activities with Europeana and FIAT/IFTA. EUScreen representatives are actively participating in the Europeana Data Model Group, the Communication Group and in the IPR Group. Additionally EUScreen organised a workshop during the 2010 FIAT/IFTA World Conference in Dublin.

Furthermore EUScreen is in the process of enlarging the network as well. Four new content providers have been contacted: NRK (Norway), ERT (Greece), Norwegian National Library (Norway) and RTP (Portugal).

7.2 Rethinking Television History: The European Dimension

In offering a flexible platform to which new collections can be added, EUScreen contributes to the presentation of Europe in the digital cultural and creative industries, stimulating use and reuse of enriched content on a permanent base. EUScreen contributes to the impact and visibility of Europe's cultural heritage material in the public domain via a web portal. Member states have invested human and financial resources into digitisation. This investment will now become rewarding as access is created and usability is stimulated and improved. The coordination, integration and interoperability of the heritage institutes participating in EUScreen will lead to a system of European cultural resources, and will underpin standards (notably EBU core) and interoperability. Moreover the envisioned large-scale accessibility of television archive content, the user-led demand approach together with the development of use cases in four different fields will enable comparative and integrative research into the history of television in Europe as well as interactive and creative participation (information sharing). Thus the project will be able to contribute to increasing cross-cultural knowledge in

a field that is still underdeveloped. This is an important step towards a truly European cultural knowledge arena.

7.3 Exploitation

Task 2.3 includes a study in possible business models. One of the building blocks is the SWOT analysis (below), based on the results from the analysis of the trends in online media consumption, the inventory of video platforms and the responses to the focus groups and questionnaires.

<i>Strengths</i>	<i>Weaknesses</i>
<p>Content:</p> <ul style="list-style-type: none"> • A heterogeneous television collection across language boundaries • Offering unique content which is not available elsewhere • Multilingual access • Metadata from reliable sources <p>Technology:</p> <ul style="list-style-type: none"> • An interoperable platform (easy to add new collections) for partners • A variety of search options • Fully interoperable with Europeana <p>Context:</p> <ul style="list-style-type: none"> • Opportunities for in-depth, comparative academic research on European television history • Stimulate awareness of the role of television in the construction of European cultural identities • Dissemination of knowledge in e-journal <p>Collaboration:</p> <ul style="list-style-type: none"> • Network of leading audiovisual archives • A consortium that combines expertise on various areas and therefore reduces costs and increases efficiency 	<p>Content:</p> <ul style="list-style-type: none"> • Limited content offered (EUscreen focuses on European television, people looking for content from other continents might be disappointed) • Discrepancies in content offered per archive and the amount of available content per country (makes comparison of European material difficult) • Lack of multilingual access to content through subtitles • Lack of multilingual access when parts of the metadata are only available in English and the original language <p>Technology:</p> <ul style="list-style-type: none"> • Technical dependencies and durability (relying on technical developments and architecture) • Standardisation and interoperability <p>Context:</p> <ul style="list-style-type: none"> • Lack of time to contextualise all the content <p>Collaboration:</p> <ul style="list-style-type: none"> • Reaching the milestones can be jeopardised by the large amount of partners (27 partners from 19 countries and three year time span)
<i>Opportunities</i>	<i>Threats</i>
<ul style="list-style-type: none"> • Growing market with users who have access to the Internet. • Growing number of consumers of online video with an interest in audiovisual heritage material • Growing need for contextualised materials. 	<ul style="list-style-type: none"> • Intellectual Property Rights (complex rights issues for television material) • Competition (other initiatives that offer a comparable service) • Problems of long term funding (sustainability)

<ul style="list-style-type: none"> • Only platform besides Video Active in the Market Survey that offers multilingual access, interoperability, and contextualisation by partners (unique in the market) • Considerable increase of associate content provider partners and increase of relevant content 	
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Table 5: SWOT analysis

There are various ways of defining and using a business model, but one model that is rapidly gaining in popularity both inside and outside the cultural heritage sector is the one that has been developed by Osterwalder and Peigneur. It combines multiple elements for previous business models and puts the user at the centre of the model.

Osterwalder defines a business model as follows: “[It] describes the rationale of how an organization creates, delivers, and captures value.” He calls this the business model concept - a useful tool for conceptualising ideas. It provides an organisation with a framework for defining the course of action for new projects. Osterwalder’s model does not just focus on capturing economic value, but can also be used to visualise and incorporate social and cultural value. Also, the user is at the centre of this model. This means that the business model canvas by Osterwalder is a great tool to use for conceptualising business models for EUscreen, since “one of the guiding principles of EUscreen is to support user-led demand and interest for services and content as well as the development of scenarios for using this content in different contexts (research, learning and leisure and for the benefit of open culture production).” (EUscreen DoW, p.8). Task 2.3 defined a general business model for EUscreen, and possible revenue models are investigated. This forms the basis for the specific business model for EUscreen.

Osterwalder divides the business model concept in nine different building blocks, which together make up the business model canvas:

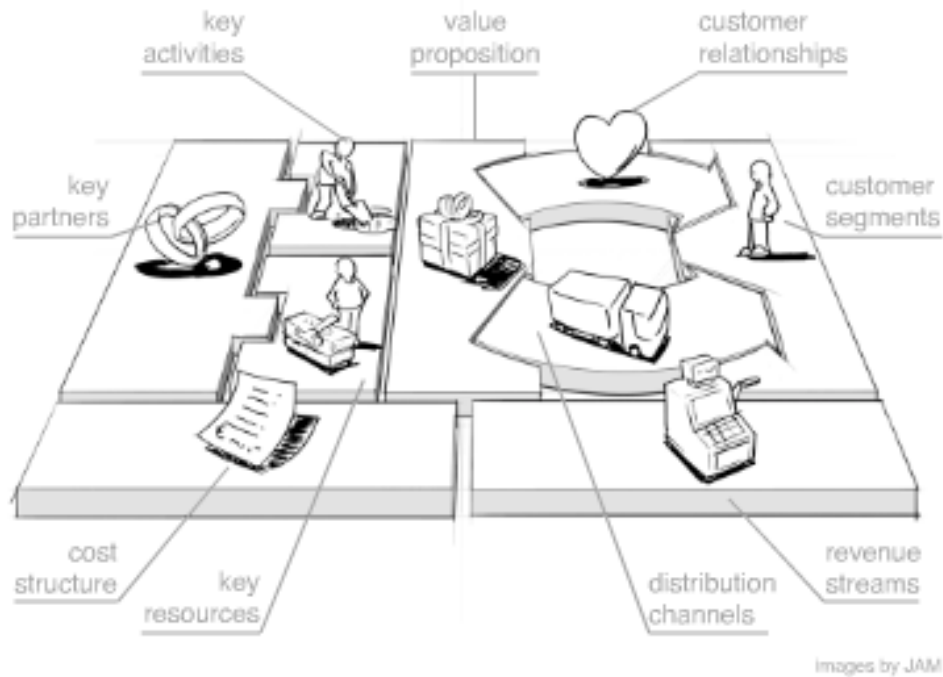


Figure 9: Osterwalder's business model canvas

Based on Osterwalder's canvas and building blocks mentioned above, the following general business model EUscreen can be developed:

<p>KP</p> <p>EUscreen consortium members</p> <p>Software supplier / developer</p>	<p>KA</p> <p>Platform management</p> <p>Enriching audiovisual materials</p> <hr/> <p>KR</p> <p>Online platform</p> <p>Audiovisual content</p>	<p>VP</p> <p>Access to interoperable, multilingual, contextualised audiovisual heritage</p>	<p>CR</p> <p>Community</p> <hr/> <p>CH</p> <p>EUscreen portal</p> <p>Europeana</p> <p>Partner websites</p>	<p>CS</p> <p>Education</p> <p>Media pros</p> <p>General public</p> <p>Cultural heritage institutions</p>
<p>CS</p> <p>Costs of maintaining infrastructure of the platform and licenses</p> <p>Costs per content partner for digitisation and storage</p> <p>Personnel costs</p>		<p>RS</p> <p>⌘: Sales of high-res materials</p> <p>⌘: Sales of educational packages</p> <p>Increase visibility / interaction with archival audiovisual materials through creative re-use</p>		

Table 6: Business Model Canvas for EUscreen.



From the overview of various revenue models (cf. Task 2.3) it has become clear that it is possible to implement a donation module into the platform itself, and that sponsoring or funding can continue to help sustain EUscreen. However, it can be expected that even though the basis of EUscreen is a free model, indirect revenue can be generated by providing information on the copyrights holders and links to the archives that can help with acquiring licenses and rights clearance for using the content outside of the EUscreen portal. Licensing is one of the most successful ways of gaining income for digital cultural heritage, therefore this indirect form of revenue might prove to be important for sustaining EUscreen.

Very few platforms use only one revenue model and well-known and large online video platforms like the Internet Archive, ITN Source, Getty Images and INA have even incorporated three or more. Unfortunately, it was not possible to gather a lot of numbers and figures concerning the amount of revenue that was generated by the platforms in this Market Survey. Therefore it is hard to say very concretely which ones seem to work the best. The important thing to take away from the analyses of the revenue models is that EUscreen will have to be creative, and that it is important to keep investigating various ways in which the platform can sustain itself when the funding period ends.



8 Further Information

Project co-ordinator: Prof. dr. Sonja de Leeuw
J.s.deleeuw[at]uu.nl
Utrecht University

Technical co-ordinator: Johan Oomen, MA
joomen[at]beeldengeluid.nl
Netherlands Institute for Sound and Vision

EUScreen network: Marco Rendina
mrendina[at]gmail.com
Istituto Luce

Communication: Wietske van den Heuvel, MA
wvdheuvel[at]beeldengeluid.nl
Netherlands Institute for Sound and Vision

Euscreen project website: www.euscreen.eu