



## MediaMap+

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### Partners:

Kendra Foundation, UK  
Limecraft, Belgium  
Prefect Memory, France  
Radio France, France  
RTBF - Radio Télévision Belge Francophone, Belgium  
SGT, France

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### Project Website

<https://www.celticplus.eu/project-mediapmap/>

## Media Management from Acquisition to Publishing+

MediaMap+ has integrated a dynamic, low-entry and cost-effective semantic ecosystem into Media production/exploitation systems for 360° publishing requirements. Henceforth the individual users are at the center, without prejudging of their mode of consumption. This requires new architectures to produce interconnected rich content, paving the way to knowledge.

### Main focus

Based on concepts of the OAIS standard (ISO 14721:2012), the MediaMap+ project offers an open collaborative framework where various management and operation functions are fully integrated. The system manages transport and exchange of resources between applications and the collection of content that leave the production chains for exploitation. The information management concept is similar to a blood system which performs a conversion of the A, B and AB Groups to O (universal donor/receiver). Semantic technology offers a generic interoperability through standards, by construction, be-

tween heterogeneous systems, and in time; empowered semantic modelled objects, linked data & media through enhancement and enrichment; searching, discovering and serendipity findings; 360° publishing on many physical media and for specific devices; a global life cycle management (from prescription, through exploitation, archiving and re-use); full security and global rights management.

### Approach

Semantic technologies emerge to meet the promise to switch from a document-oriented platform to a network where projects (processes and actions of a user) are structured by the eco-system. A semantic middleware allows such implementation like distributed activities, leads to converging contributions and prepares common ground and bridges for exchange between actors, between machines and between machines and actors.

Indeed, this requires taking into account the role (what to do, as part of the action),

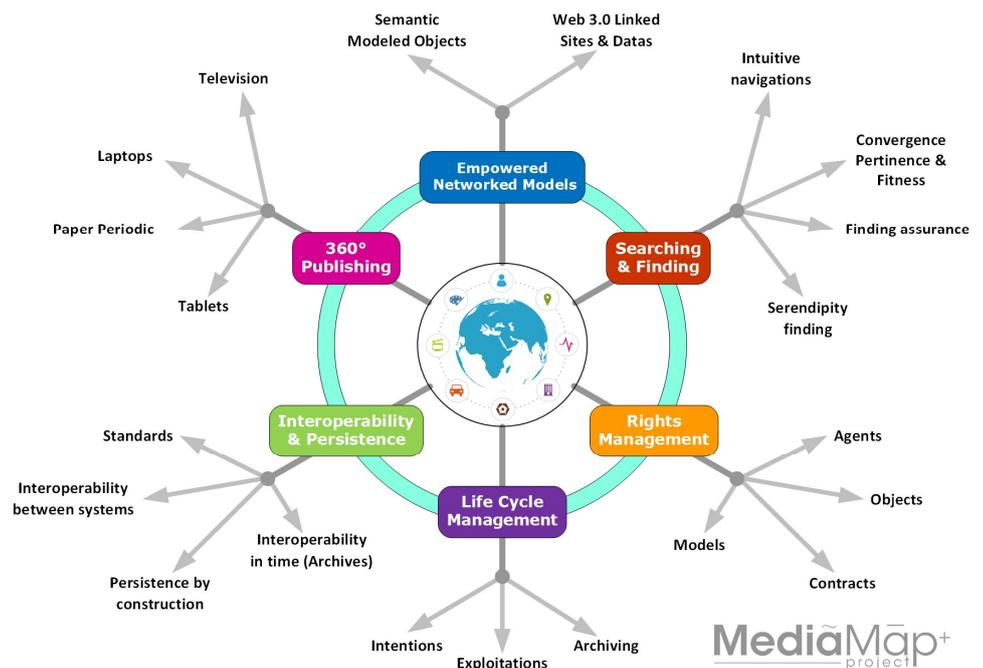


Figure 1: the generic MediaMap+ ecosystem

the know-how (the skill, the technical background) and the data (context, profile management, interoperability windows) in the production of interfaces (Views).

The semantic middleware connects the different internal production layers (organisation, planning, production management, production engineering, asset management and distribution), ensures the consolidation of enriched information through a distributed architecture and provides the information exchange functions with the external knowledge bases.

The system owes its coherence to the fact that it integrates different configurations of the IT park in the form of files and data, technical description and its various components, as well as all the changes over time. It is to store and track different versions or revisions of any information handled in the system.

Converting "the textual representation" into "computer knowledge management", mobilizes significant resources to transform "terms in relations" in "properties stored as internal representations", organized as network properties.

## Main results

The MediaMap+ Event & Rights model is defined upon the Media Contract Ontology (MCO), defined in MPEG-21. The key concept is the Permission, agregating the components establishing the con-

ditions of rights given to an Editorial Object (Perfect-Memory). The Permission is set for a specific Agent, specific Spatial and Temporal context, always in order to permit an Action, acted over the Editorial Object. These key concepts and the relations between

ject – example of music and parental guidance), consultation (segmented rights displayed in the SGT Media Manager and Playout tools) and broadcasting (context awareness: localization and day time – program rights).

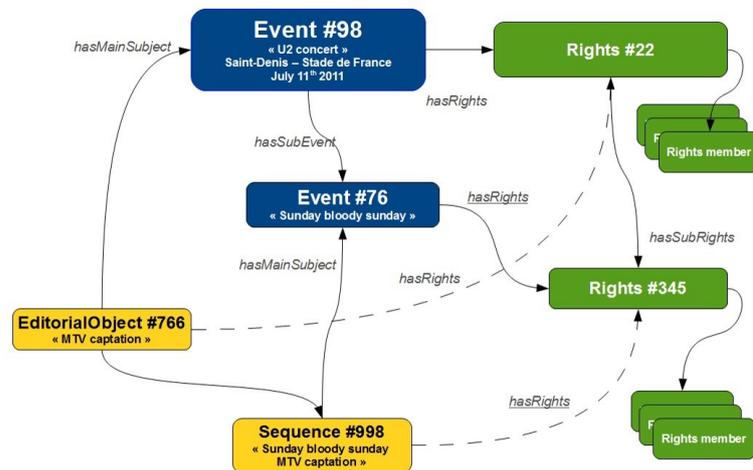


Figure 2: the semantic Event & Rights modelling

ditions of rights given to an Editorial Object (Perfect-Memory). The Permission is set for a specific Agent, specific Spatial and Temporal context, always in order to permit an Action, acted over the Editorial Object. These key concepts and the relations between

them are all defined in MCO: MediaMap+ model extends in order to be applied to Editorial Object and Events."

Through the annotation tool the Rights (known or inferred) are attached to any AV Editorial Object during the Editing (Limecraft). This has a major impact during the processes of composition (using Editorial Objects within Editorial Ob-

## Impact

Since Media production and distribution technology has been irreversibly replaced by IT technology, in order to stay competitive, the EU needs to be at the heart of the innovation and enable ground breaking services as proposed by this project.

MediaMap+ has tackled some fundamental issues of traceability and disclosure of audio-visual material. The Semantic wrapper allows to declare the existence of a project, to manage the prescription, to construct an Event (logical representation of the subject) and the creation and annotation of the content.

The MediaMap+ reference architecture and the open media communications services are in a position to lay out the foundation of an entire ecosystem of real-time collaborative production, interoperable media services, including high-quality content aggregation and on-demand distribution services.

It has the potential to reinforce and innovate the European Media Industry and thus promote European issues like proliferation of networked open Knowledge Bases, Linked Media, sustainable archiving!

## About Celtic-Plus

Celtic-Plus is an industry-driven European research initiative to define, perform and finance through public and private funding common research projects in the area of telecommunications, new media, future Internet, and applications & services focusing on a new „Smart Connected World“ paradigm. Celtic-Plus is a EUREKA ICT cluster and belongs to the inter-governmental EUREKA network. Celtic-Plus is open to any type of company covering the Celtic-Plus research areas, large industry as well as small companies or universities

and research organisations. Even companies outside the EUREKA countries may get some possibilities to join a Celtic-Plus project under certain conditions.

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