



## **SEVENTH FRAMEWORK PROGRAMME**

### **ICT-1-1.5**

### **Networked Media**

*Specific Targeted Research Project*

### **My eDirector 2012**

(FP7-215248)

**My eDirector 2012 - Real-Time Context-Aware and  
Personalized Media Streaming Environments for  
Large Scale Broadcasting Applications**

### **D1.6 Public final activity report**

Due date of deliverable: 25-04-2011

Actual submission date: 12-05-2011

Start date of project: 04-02-2008

Duration: 36 months

## Summary of the document

### ANNUAL REPORT

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<b>Abstract:</b>	<i>This document provides information about the activities that the My eDirector 2012 has carried out between February 2008 and March 2011. This is the final public report of My eDirector 2012 project.</i>
<b>Keywords:</b>	<i>Management, activities, dissemination, deliverables, events</i>
<b>References:</b>	DoW



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## Executive Summary

This document provides information about the project My eDirector 2012 and gives an overview in preparing steps in the regulation of the project.

This corresponds to the timeline February 2008 till March 2011.

The project is characterized by the commencement of essential work in the scope of all core technical and exploitation tasks in particular:

- Collection of realistic Olympic data
- Elaboration of real-life scenarios based on specific sports events
- Specification and elaboration of the My eDirector 2012 architecture
- Investigation and evaluation of video and non-video based tracking and identification technologies for sports
- Face tracker employing multiple measurement in a partitioned sampling framework
- Annotation of some sequences regarding faces for tracking evaluation
- Demos presentations
- Events participations
- Contact to the RTVE and OBS towards London Olympics Games
- Contact to other possible clients of My eDirector 2012

The present document is divided into following sections:

Executive Summary  
Overview  
Promotional information

## Overview

### Project facts

<b>Project Name</b>	<b>My eDirector 2012</b>
<b>Type of Project</b>	Small and Medium-scale focused Research Projects (STREP)
<b>Grant Agreement Number</b>	215248 (FP7 Call 3)
<b>Number of partners</b>	7
<b>Cost</b>	3.742.720 EUR
<b>EC Contribution</b>	2.758.648 EUR
<b>Project duration</b>	36 Months
<b>Start date</b>	1st of February 2008
<b>Finish date</b>	31st of March 2011

## The project idea

The main goal of My eDirector 2012 is to research and develop a unique interactive broadcasting service enabling viewers to select focal actors and points of interest within real-time broadcasted scenes, such as Olympic Games of London 2012. My eDirector 2012 consortium will develop a test prototype for 2010. The project ended in 2011 allowing time to develop a commercial solution for the Olympic Games London 2012.

The service will resemble an automated ambient intelligent director that will operate with minimal or even without human intervention. Contrary to state-of-the-art services of similar nature that focus on few targets and low-level activity scenes, My eDirector 2012 will target large scale multi-actor, multi-target environments and high-activity scenes. Hence, the proposed ambient intelligent director service will benefit all of the stakeholders in the value chain:

## Objectives

- Research and develop an interactive broadcasting service enabling end-users to select focal actors and points of interest within real-time broadcasted scenes. The service will resemble an automated ambient intelligent director that will operate with minimal or even without human intervention.
- Create a novel service capable of automating the coverage of events in naturalistic contexts that involve densely populated and high activity scenes.
- Advance the state-of-the-art in a variety of technological areas
  - Person localization and tracking
  - Multimodal fusion and multi-camera selection
  - Tailored-personalized streaming
  - Media broadcasting over heterogeneous networks

## Research

In order to support the user experience that My eDirector 2012 consortium has foreseen, new technologies are needed, therefore the consortium has enhanced research activities in the following areas:

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### *Personalized interactive video broadcast service*

The goals of this implementation were personal preference acquisition, sharing, aggregations and automatic (recommender) channel event selection. For that reason a highly interactive Web player supporting live adaptive streaming was implemented along with a profile builder for acquiring and clustering the users and user interaction adapted personalization mechanisms for sports event selection.

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### *Ambient Camera Selection*

Ambient Camera Selection is a mechanism about reasoning in multi-camera sports distribution systems to propose personalized camera views to users. The selection mechanism accepts metadata from the different camera views.

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### *Interactive and personalised media services over heterogeneous networks*

In My eDirector 2012 platform, the end user can have access to personalised media stream services over heterogeneous networks, both over high speed fixed and mobile access

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technologies. Fixed “access” technologies like ADSL, Ethernet and the new WiMAX standard 802.16d-2004 that refers to fixed networks cover the majority of use case scenarios. Additionally, from the mobile side, My eDirector 2012 supports various radio access technologies like WiFi, 3G (HSPDA), WiMAX (802.16e-2005 mobile version) and DVB-T infrastructures. The novelty within the latter network is the utilisation of a hybrid DVB-T/H infrastructure for personalised service provision over legacy broadcasting technologies (DVB-T/H) with the utilisation of a bidirectional return channel over IP.

The platform is addressing the issue of personalisation over all the above network types, offering the ability to personalise access to multimedia streaming, even over transmission modes over which individual treatment of each stream is considered incompatible. Several options, applicable even over traditional terminals such as TV sets are offered, through the use of both State of the Art approaches (i.e. TV Widgets), and utilisation of personal devices (i.e. mobile phones in order to manage the TV set).

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#### *Seamless - uninterrupted media streaming during user mobility*

The My eDirector 2012 media delivery platform provides seamless service mobility in all levels. Both Horizontal handover featuring user mobility within the same wireless technologies and Vertical handover in which user roams through different wireless (and wired) access network technologies, are supported. In both cases, the user experience as regards the streaming of the multimedia accessed is not only uninterrupted, but is characterized by smooth (even seamless) transition between handovers. The adoption of HTTP adaptive streaming has been the enabling technology, focusing the research efforts on the appropriate heuristics for buffer management. Alternative approaches for supporting seamless mobility such as tunnelling have also been demonstrated and are applicable, while switching across devices (i.e. from laptop to mobile phone) is also supported even in real time/live transmission.

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#### *Media stream QoS provision with the use of cross-layer resource management techniques*

In My eDirector 2012; a big challenge is the research on QoS mechanisms and protocols in a cross layer approach, from the physical up to application layer. As regards the lower layer protocols, the results already presented in major conference publications focus on radio access technologies due to the uncertain nature of these networks. The research work has resulted on the proposal of innovative load balancing techniques that could provide a uniform end user distribution across base stations of an infrastructure network based on the utilisation of the Access Points. On the other hand, we have made research on state of the art application layer QoS mechanisms, focusing on novel media transport techniques such as HTTP adaptive streaming, able to detect problems in the media delivery at both network and device levels. Furthermore, mechanisms for the deployment of efficient schemes such as multicast and broadcast and the seamless transitions across transport technologies have been designed and demonstrated as part of the media distribution mechanism.

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#### *RFID tracking*

Within My eDirector 2012 many separate processes have to take place so the whole system can operate successfully. One of these processes is the tracking of people or athletes. The ability of My eDirector 2012 to tracking and understanding where and who each of those athletes are, is the key process to allow My eDirector 2012 to create quality output that viewers will enjoy.

This research finds that the RFID system is able to track athletes to a reasonable degree of accuracy and reliability, but that it is let down by the size of the tags.

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### *Calibration*

In this project, the camera calibration information is therefore deduced by using image processing techniques combined with knowledge of the real world positions of some features that appear in these images. Multiple, images are used to enable enough data to be extracted to estimate the location of the camera, and to build a 'map' of features from which the camera orientation and field-of-view for each image can be estimated.

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### *Segmentation*

A method for segmenting athletes from the background has been developed by the BBC. This segmentation is based on motion-compensated frame-differencing. This produces a good quality segmentation that is robust to lighting changes such as those at outdoor events. This method of segmentation requires camera parameters for each image frame or image field processed; indeed, it can be implemented as a part of the camera tracking process and used to improve the robustness of the tracker, as described above. It produces pixel-wise masks to indicate areas of moving foreground, which can be of use in other processing modules in the project in addition to the camera tracker.

The algorithm first builds a background image over several frames using a motion-compensated temporal median filter. This makes use of the camera calibration information produced as described above. The background image is then used by the segmentation algorithm to generate a mask indicating areas that are moving differently to the background.

The segmentation algorithm uses information from signal components that are largely invariant to brightness, ie. hue, luminance edge direction, and saturation.

A contribution from absolute luminance difference can also be included, but this should generally be kept to a low level to maintain some immunity from brightness change.

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## **Lab Trials**

The following lab trials have been held within the My eDirector 2012 project:

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### *PVR Usability*

PVR Usability: Lab trial that took place in order to evaluate the PVR usability was stated followed by a configuration of the system used.

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### *PVR Player Group-based Personalisation*

These studies concern the user acceptance of the personalisation services offered by the system

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### *Media and Stream Adaptation*

These lab-based studies evaluated the Quality of Experience (QoE) of the My eDirector 2012 platform. The perceived video quality and the final impression of the main menu and features of the user interface (UI) were the subjects of the evaluation.

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### *WiFi Load balancing mechanism*

This lab trial demonstrated an innovative radio management technique, developed in the

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framework of the My eDirector 2012 in order to provide higher quality of real time streaming over WiFi networks.

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#### *Smart and Seamless mobility*

With the completion of this lab trial, the scope was to evaluate the smart and seamless mobility feature of the My eDirector 2012 system. More specifically the capability of the end users to move across networks of the same or different access technologies (Fixed - Wireless), without any interruption on the media stream or any QoS degradation.

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#### *Personalised broadcast service*

In this trial we combine the usage of the DVB technology with the internet access technology as return channel, in order for the end user to be able to submit his profile and his preferences.

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#### *Athlete segmentation module using image processing*

A suite of algorithms for sensing athlete presence and identity, as well as camera motion and produce automatic annotations. Then these video annotations are used to reason about incidents. The detected incidents are also annotated. This lab-based study evaluated the accuracy of these annotations.

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More information about all these lab trials (architecture, deployment, scenario definition, and configuration) can be found in D2.5 Trials Architecture and Configuration.

### **Online Trial**

A online trial system was designed so that regular users could access and test the My eDirector 2012 system. 20 minutes of recorded video footage was used and streamed every half an hour through internet. A promotional video was elaborated to run while there was no trial running. Olympic messages have been created; camera calibration algorithms have been implemented in order to enhance the video processing algorithms.

This online trial had different purposes:

- Show to potential clients what is being done in Europe In research.
- Test if the general public likes the idea of having video recommendation and how they accept that they can choose the camera to watch
- Get information of the bandwidth from the European network.

All video sources used in the trial were recorded in the Aviva London Gran Prix 2010 Diamond League and have been converted to smooth stream using the following qualities: 1Mbps, 1,5Mbps, 750kbps, 500kbps, 250Kbps. The audio was always encoded in 128Kbps.

The module was developed and was in charge of triggering all simulators every half an hour to start the system and this way achieve a synchronized My eDirector 2012 platform.

Invitations were sent to the following:

- 353 Colleagues & Students of My eDirector 2012 consortium
- 15000 Business contacts
- 259 Personal contacts

Of these invited people, 212 of them completed the trial and the questionnaire. 544 took part in the trial but did not complete the questionnaire and 256 registered people did not take part in the trial any further.

The following image shows a screenshot from the player when the user entered logged in.



Data from each subsystem, the activity of the users, and some other network statistics information was collected to do the evaluation of the system.

More details about the architecture and the functionality can be found in D2.5 Trials Architecture and Configuration. The result of these online trials can be found in D7 3 Report on Field Trials.

## Evaluation

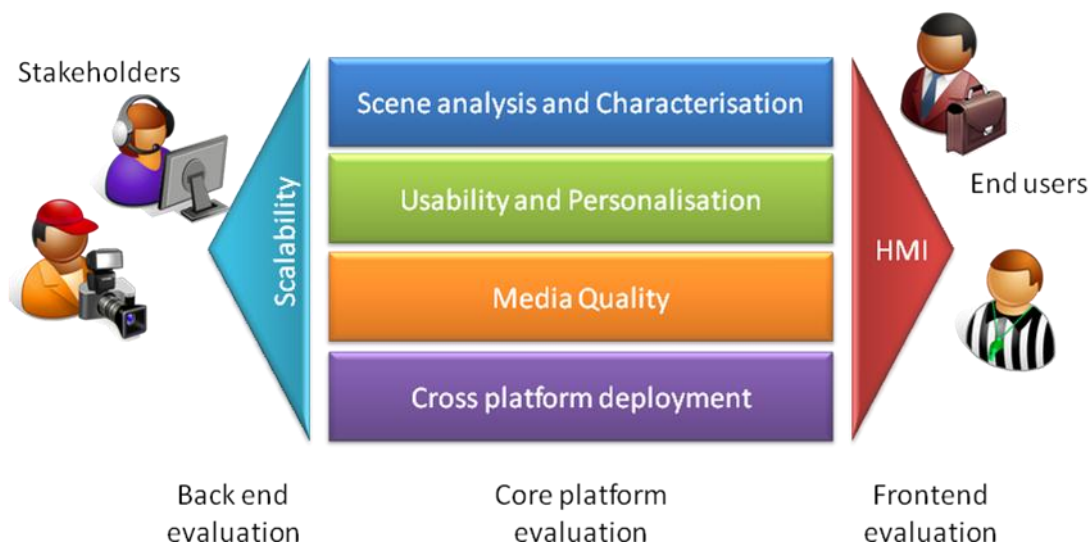
My eDirector 2012 evaluation activity aimed to evaluate the outcome of the research and development carried out mainly in the first two years of the project, but also in the third year of the project.

The reason to proceed with these evaluation tasks was to gather information from the project's output in order to; on the one hand, fine tune the platform, following the completion of RD activities and on the other hand, prepare for the exploitation. We also used the analysis of the evaluation to provide evidence that will allow us to have a sales arguments.

The consortium has detailed a tree list identifying the functionality that should be add, improve and what should not be included in a commercial platform.

Finally, the evaluations activity of the project has allowed the consortium to define a common future vision of the technologies that will be demanded either by the users or industry in the next years and therefore to define a mid-term research agenda.

This information has helped us to understand how useful and interesting the outputs of the research activities are to identify the commercialisation potential of these project results, and new research areas in which we can enrich the consumer experience.



The core evaluation of the platform is classified in 4 categories of usability testing:

1. **Scene analysis and Characterisation.** Scene analysis and characterization produce information that describes what is being seen in the covered event, as well as the creation of related metadata. This information is used for both the provision of recommendations to the viewer, and for enhancing the user experience through the generation of specific data concerning athletes' activities and their progress in events.
2. **Usability and Personalisation.** The goal of usability testing is to improve the profitability of the platform in order to provide to the users useful and satisfying services. The evaluation of usability is parallel to the evaluation of personalisation as the My eDirector 2012 platform focuses in personalised multimedia access. Therefore this evaluation targets the user's perception of the service.
3. **Media Quality.** The quality of media is extremely important as the intention of My eDirector 2012 is to provide a high quality live experience. Poor media quality (fogginess, mixture, unclarity of colors) can easily lead to low Quality of Perception (QoP).

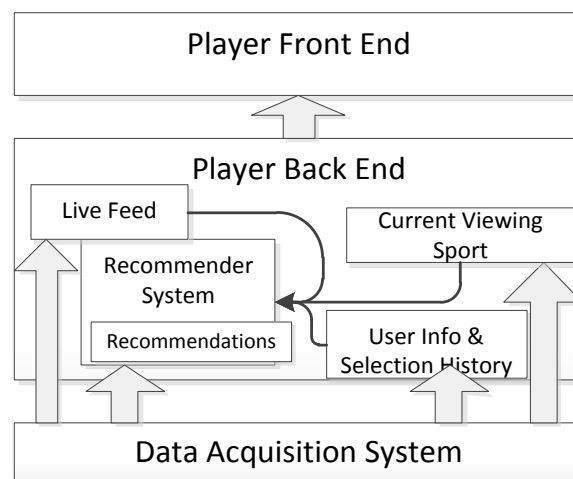
- 4. Cross platform deployment.** This is a factor that arises from the constantly increasing multi-media consumption in personal devices. Therefore the platform must be able to run on all “3 screens” and this is the reason for having implemented related widget applications for mobiles and TVs. These applications are tested and evaluated based on all the above quality factors.

The evaluation follows the integration roadmap as and is a combination of tests in three stages: the 1<sup>st</sup> prototype tests (before integration), the 2<sup>nd</sup> prototype tests (integration stage) and the final lab based studies followed by the field trials.

These tests took place in each partner’s lab to integrate all the services provided by the platform. Inter-connection over internet was used, when necessary, in each prototype testing phase. Finally, after the completion of the integration tests, the evaluation of each service of the platform was implemented through lab based studies that took place with the involvement of real users.

In the first category: Scene analysis and Characterisation, The analysis of the scene and the characterization is highly important, as leads to the extraction of clear and defined info that includes metadata.

In order to evaluate the Usability and Personalisation, the trials that took place involving real users are: “Personalised broadcasting services.



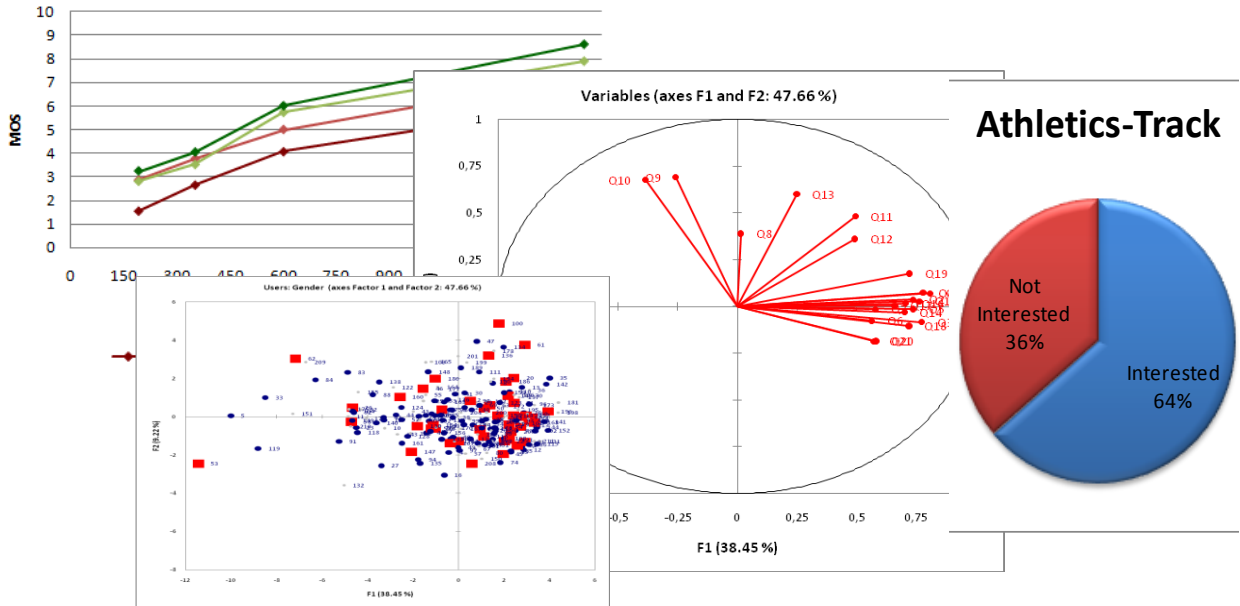
**Figure 1: System Setup of Personalised Events Selection**

Moreover, media quality evaluation is part of all lab based studies by measuring the user’s perception of the real-time streamed video.

Finally, the cross platform deployment was tested through the evaluation of different versions of the service, including the use of mobile devices and DVB STBs.

On the other hand, the end users are involved in the front end evaluation. The methodology used here targets the evaluation of the HMI factor. That means that the Interface was user-friendly, easy to navigate and aesthetically pleasing. Therefore, the users are asked to fulfill structured questionnaires or they present their point of view by the method of one-click that is running while the services are demonstrated to them. More information about this can be found in D7.2 Report on Integration and Lab Trials.

Extensive comments about the result of the evaluation can be found in D7 3 Report on Field Trials and hundreds of figures, as the ones from bellow, have been include in this document to illustrate the evaluation with the collected values and user opinions. Demographics, sport interests, habits viewing live sports, media quality analysis, session analysis, recommendation analysis, experts opinion has been added in that document.



Once the evaluation tasks were performed the fine tune the platform, preparation for the exploitation and following the completion of RD activities were brainstormed and expressed in D7.5 System and Service Evaluation Report:

**Fine tune the platform**

- Add
- Improve
- Drop

}

functionality

**Prepare for exploitation**

- Evaluate potential use
- Identify usage scenarios
- Test user acceptance
- Assess usefulness
- Compare to competition

**Future Vision**

- Report on technologies
- Research agenda
- Link to other platforms

*Fine tune of the platform*

Actions towards the enhancement of the platform, both taken during and after the project's results have been reported. Emphasis is given in the results that have emerged out of the evaluation during the live and field trials.

*Prepare for exploitation*

The specific case of exploitation for Olympic Games has been depicted. Other possible scenarios, that have similarities with the Olympic Games, have been identified

*Future vision*

Several research topics have been identified and where the feeling was the more investigation could be done in future research projects.

### Project reports and papers

Del. no.	Document	Dis-semination Level
D1.1	Risk Identification and Management & Quality plan	PU
D1.2	Interim activity report	NO PU
D1.3	Periodic activity report	NO PU
D1.4	Periodic management report	NO PU
D1.5	The periodic report on the distribution of the Community's contribution	PU
D1.6	Public final activity report	PU
D1.7	Final PUDiK	NO PU
D1.8	Final management report	NO PU
D1.9	Final report on the distribution of the Community's contribution	PU
D2.1	End-User Requirements	PU
D2.2	Specification of Scenarios and Trials	CO
D2.3	Network Platform Requirements	NO PU
D2.4	System Architecture and Specifications	NO PU
D2.5	Trials Architecture and Configuration	NO PU
D2.6	Business Model(s) Specification	PU
D2.7	BM(s) specification update	PU
D3.1	Contextual-Database Creation Tool	PU
D3.2	Environment Analysis Module	NO PU
D3.3	Multiple-Person Tracking in an Unconstrained Environment	NO PU
D3.4	Face Detection, Identification and Tracking Module	NO PU
D3.5	Person Identification	NO PU
D3.6	3D person localiser	NO PU
D3.7	Final Report on the Integrated Vision Technologies	PU
D4.1	User and Network Context Acquisition and Tailored Streaming Creation	PU

Del. no.	Document	Dis-semination Level
D4.2	Live Information Analysis	NO PU
D4.3	My eDirector 2012 Knowledge Base	NO PU
D4.4	Configurable Camera Selection Metrics and Algorithms	NO PU
D5.1	User Terminal (Fixed, Mobile) and User Task Interface Definition Report	NO PU
D5.2	Personal Preference Model Report	NO PU
D5.3	Final report of the Application of the Personalisation Model	NO PU
D6.1	My eDirector 2012 Heterogeneous internetworking and mobility architecture	NO PU
D6.2	Personalized media stream over Radio Access Technologies	NO PU
D6.3	Media transmission and quality of service	NO PU
D6.4	Specification of and Design of SIP extensions for interactive broadcast	NO PU
D6.5	Design & Implementation Report: service platform for interactive broadcast	NO PU
D6.6	Broadcasting Center sResource management module	NO PU
D7.1	Planning of Trials and Integration	NO PU
D7.2	Report on Integration and Lab Trials	PU
D7.3	Report on Field Trials	NO PU
D7.4	Technology Evaluation Report	PU
D7.5	System and Service Evaluation Report	PU
D7.6	Requirements and Planning for an Olympic Showcase	NO PU
D8.1	Public Web Site and Project Presentation	PU

Del. no.	Document	Dissemination Level
D8.2	Market Analysis	NO PU
D8.3	Exploitation Plan	NO PU
D8.4	Post-Project Dissemination Activities Plan	PU
D8.5	Exploitation Agreement	NO PU
Paper	Mario Serafim Nunes, Charalampos Z. Patrikakis and Nikolaos Papaoulakis, "A network oriented perspective on the personalization of media streaming"	PU
Paper	Nikolaos Papaoulakis and Charalampos Z. Patrikakis, "A proactive, terminal based best Access Point selection mechanism for Wireless LANs"	PU
Paper	Nikolaos Papaoulakis, Nikolaos Doulamis, Charalampos Patrikakis, Emmanuel Protonotarios and Jonh Soldatos, "Real-Time Context-Aware and Personalized Media Streaming Environments for Large Scale Broadcasting Applications My eDirector 2012"	PU
Paper	Mario Serafim Nunes, Charalampos Z. Patrikakis, Nelson Escravana, Nikolaos Papaoulakis, John Paul Moore Olmstead, "Personalised Media Streaming for Large Athletic Events"	PU
Paper	Petros Daras, Nick Achilleopoulos, Marianna Panebarco, Oscar Mayora, Peter Stollenmayer, Doug Williams, Tim Pennick, Nadia Magnenat-Thalman, Carmen Guerrero, Michiel Pelt, Tim McGrath, Eugenia Fuenmayor, Nikolaos Papaoulakis, Federico Alvarez, Elias Kalapanidas, Alex Shani, Jean-Yves Le Moine, Janko Calic, "Future Media Internet – A User Centric Media Perspective",	PU
Paper	Nikolaos Papaoulakis, Nikolaos Doulamis, Charalampos Patrikakis, John Soldatos, Aristodemos Pnevmatikakis and Emmanuel Protonotarios, "Real-Time Video Analysis and Personalized Media Streaming Environments for Large Scale Athletic Events"	PU
Paper	Janko Calic, Petros Daras, Nick Achilleopoulos, Marianna Panebarco, Oscar Mayora, Peter Stollenmayer, Doug Williams, Tim Pennick, Nadia Magnenat-Thalman, Carmen Guerrero, Michiel Pelt, Tim McGrath, Eugenia Fuenmayor, Nikolaos Papaoulakis, Federico Alvarez, Elias Kalapanidas, Alex Shani, Jean-Yves Le Moine "User Centric Media of the Future Internet"	PU
Paper	R.S. Cruz, M.S. Nunes, L. Menezes, and J. Domingues, "SIP based IPTV architecture for heterogeneous networks,"	PU
Paper	Stefan Poslad, Aristodemos Pnevmatikakis, Mario Nunes, Elena Garrido Ostermann, Paul Chippendale, Peter Brightwell, Charalampos Patrikakis, "Di-	PU

Del. no.	Document	Dis-semination Level
	recting Your Own Live and Interactive Sports Channel”	
Paper	Charalampos Patrikakis, Nikos Papaoulakis, Chryssanthi Stefanoudaki, Mário Nunes, “Streaming content wars: Download and play strikes back”	PU
Paper	H. Santos, R.S. Cruz, and M.S. Nunes, "Rate Adaptation Techniques for WebTV,"	PU
Paper	R.S. Cruz, J. Espadanal, and M.S. Nunes, "A Personalized HTTP Adaptive Streaming WebTV,"	PU
Paper	Nikos Katsarakis, Aristodemos Pnevmatikakis, “Event detection in athletics for personalized sports content delivery”	PU
Paper	Zhenchen Wang, Stefan Poslad Charalampos Patrikakis, Alan Pearmain, “Personalised Live Sports Event Viewing on Mobile Devices.”	PU
Paper	Kraisak Kesorn, Zekeng Liang, Stefan Poslad “Use of Granularity and Coverage in a User Profile Model to Personalise Visual Content Retrieval”	PU
Paper	Aristodemos Pnevmatikakis, Nikos Katsarakis, John Soldatos “Person tracking for ambient camera selection in complex sports environments”	PU
Paper	Kraisak Kesorn, Stefan Poslad “Semantic Restructuring of Natural Language Image Captions to Enhance Image Retrieval”	PU
Paper	Aristodemos Pnevmatikakis, Lazaros Polymenakos “Subclass linear discriminant analysis for video-based face recognition”	PU
Paper	Charalampos Patrikakis, Nikos Papaoulakis, Rui Cruz, Mário Nunes, “Robust Multimedia Transmission Over Wireless and Mobile Networks”	PU
Paper	A. Pnevmatikakis, N. Katsarakis, P. Chippendale, C. Andreatta, S. Meselodi, C. Modena, F. Tobia , “Tracking for Context Extraction in Athletic Events”	PU
Paper	P. Chippendale, A. Pnevmatikakis. “Sports Indexing Through Camera and Content Understanding P. ”	PU
Paper	R.S. Cruz, J. Domingues, L. Menezes, and M.S. Nunes, "IPTV Architecture for an IMS Environment with Dynamic QoS Adaptation	PU
Paper	Ch. Patrikakis, A. Pnevmatikakis, P. Chippendale, M. Nunes, R. Cruz, S. Poslad, Z. Wang, N. Papaoulakis, P. Papageorgiou, 'Direct your personal	PU

Del. no.	Document	Dis-semination Level
	coverage of large athletic events	
Paper	Ch. Patrikakis, A. Pnevmatikakis, P. Chippendale, M. Nunes, R. Cruz, S. Poslad, Z. Wang, N. Papaoulakis, P. Papageorgiou, 'Direct your personal coverage of large athletic events' (pre-publication available at IEEE Xplore)	PU
Paper	R.S. Cruz, J. Domingues, L. Menezes, and M.S. Nunes, "IPTV Architecture for an IMS Environment with Dynamic QoS Adaptation"	PU
Paper	Nikolaos Papaoulakis, Charalampos Patrikakis, Chrysanthi Stefanoudaki, Platon Sipsas and Athanasios Voulodimos, "Load balancing through terminal based dynamic AP reselection for QoS in IEEE 802.11 networks"	PU
Paper	C. Patrikakis, N. Papaoulakis, C. Stefanoudaki, A. Voulodimos, E. Sardis, "Handling multiple channel video data for personalized multimedia services: a case study on soccer games viewing"	PU
Paper	Ch. Z. Patrikakis, N. Papaoulakis, N. Doulamis, Ch. Stefanoudaki, C. Goktug Gurler, Burak Gorkemli, "Personalized Media Distribution Technologies over the Internet"	PU
Paper	C.Patrikakis, L.Argyriou, "My own, personal video broadcast"	PU

PU	Public available document
NO PU	No public document

## Promotional Information

The project website: [www.mydirector2012.eu](http://www.mydirector2012.eu) gives an important overview to create opportunities for other groups to work with the results and, for the project, to receive feedback from 'adopters'.



The screenshot shows the homepage of the My eDirector 2012 website. At the top left is the logo with '2012' and 'My eDirector'. The main header features the title 'My eDirector 2012' with the tagline 'Your way to feel the games' and a 'SEVENTH FRAMEWORK PROGRAMME' logo on the right. A navigation menu includes 'Home', 'Overview', 'Consortium', 'Research areas', 'Public Reports', 'Publications', 'Media Library', and 'Contact us'. The main content area has a large image of a hand holding a remote control, with text describing the project as a R&D project for real-time broadcasting. Below this are three sections: 'What's new' with links to 'How TV may look in the future', 'New twitter for My eDirector 2012', and 'Conf.20'; 'Next Events' with links to 'Content and Media session of Canada-EU Future Internet Workshop' and '11th NEM General Assembly'; and 'See you also at' with Facebook and Twitter icons. The footer contains 'CopyRight © My eDirector 2012' and a 'Login' link.

My eDirector 2012 website

## Further Information

An overview of project's related information, from those three year of research, such as publications, including scientific articles, conference papers, presentations, links to other project related components and databases, etc., can be found at the project's website: [www.myedirector2012.eu](http://www.myedirector2012.eu).

The information below is an overview of the **Post-dissemination activities** after the project.

### Research oriented dissemination Strategy

The strategy to follow for post-project dissemination will be based on:

- My eDirector 2012 project Website: This website, hosted by Atos Origin, will be maintained and updated with the latest news related to the project or the technologies that have been involved in the project.
- My eDirector 2012 will be taken into account in future research projects. The work done could be used as basis of further investigations.
- My eDirector 2012 will be present in other projects' future dissemination events. This could be an indirect way to disseminate the project in the framework of similar research projects.

### Dissemination tools

#### Online presence

My eDirector 2012 project is present online. During the development of the project, My eDirector 2012 website has been providing information about the progress of the project. Now it is a place where potential users could find out about the existence of My eDirector 2012 solution and let them learn more about this amazing tool that makes them feel an audiovisual experience never seen before.

My eDirector 2012 is also present in social networks. It has been possible to follow the evolution of the in My eDirector 2012 Facebook group (<http://www.facebook.com/group.php?gid=114980445207441>) during the development of the project; Now, this group has become a place where users could chat and share their experiences using My eDirector 2012.

The usage of social networks for disseminating the project results could now be utilized as a meeting point or for interchanging opinions between My eDirector 2012 users. These other networks are Twitter (<http://twitter.com/myedirector2012>) and Flickr <http://www.flickr.com/photos/49277314@N07/>

It is possible to find My eDirector 2012 in Youtube (<http://www.youtube.com/user/MYeDirector>); this dissemination channel is recent and it will offer the possibility to watch and upload videos directly recorded from My eDirector 2012 platform. The videos will display individual WP3 technologies running on rights-free athletics videos. Also there are two videos of tutorial presentations that can be found in this Youtube channel. One on Video Signal Processing for Sports Events and a second one named "Load Balancing through terminal based dynamic AP reselection for QoS in IEEE 802.11 networks".

My eDirector 2012 will continue to be mentioned in various parts of the web sites of the project partners. See for example:

- [http://www.ait.edu.gr/ait\\_web\\_site/faculty/apne/pnevmatikakis.html](http://www.ait.edu.gr/ait_web_site/faculty/apne/pnevmatikakis.html)
- [http://www.ait.edu.gr/export/sites/default/ait\\_web\\_site/pdf\\_projects/My-eDirector2012.pdf](http://www.ait.edu.gr/export/sites/default/ait_web_site/pdf_projects/My-eDirector2012.pdf)
- <http://www.bbc.co.uk/rd/projects/2009/10/myedirector2012.shtml>
- [http://www.atosorigin.com/en-us/services/industries/telecom\\_media/new\\_media/default.htm](http://www.atosorigin.com/en-us/services/industries/telecom_media/new_media/default.htm)

In addition, individual partners will also maintain a Web presence to disseminate the main ideas of My eDirector 2012 and what has been achieved from a partner perspective.

Moreover, up to now, two relative entries have been included in Wikipedia citing research results of My eDirector 2012, under the lemmas of "Streaming Media" and "Adaptive Bitrate".

### Presentation in Workshops and conferences

- Atos Origin will present My eDirector 2012 solution in the leading global tradeshow for professionals engaged in the creation, management and delivery of broadcasting media and entertainment, better known as IBC, which will take place in Amsterdam, from 8<sup>th</sup> to 13<sup>th</sup>, September 2011.
- Atos Origin presented My eDirector 2012 solution in the National Association of Broadcasters show (NABShow) in 2011. With the motto "Where content comes to life", this event took place in Las Vegas, Nevada, USA, in April, from 9<sup>th</sup> to 14<sup>th</sup>. The presence in this dissemination event was scheduled before the extending date of the project.
- QMUL has submitted a paper to UbiComp 2011 in Beijing, China on the topic of personalized zooming. If accepted, it will be presented in September 2011 and the trip will be funded by QMUL.

### Leading and editing of publications

- At the end of the project QMUL has the results of multiple Lab trials and the main live trials. It is the intention of some of the academic partners to submit journal papers that do not incur a travel and presentation cost as follows;
  - QMUL is preparing a journal paper called "Personalizing Live Zooming for Web TV Sports" to be submitted to IEEE Intelligent Systems in late Spring.
  - QMUL is preparing a journal paper called "Personalised event viewing" to be submitted to ACM Transactions on Internet technology. QMUL is also preparing a journal paper about the evaluation and the recommendation part of a personalised multi-event system to be submitted to an as yet unidentified journal
- My eDirector 2012 is acknowledged in the book "Audio-visual Person Tracking: A Practical Approach", by Aristodemos Pnevmatikakis, Fotios Talantzis and Antony Constantinides, to be published in July 2011 by Imperial College Press and distributed by [World Scientific Publishing Co.](http://www.worldscibooks.com/compsci/p724.html) (see <http://www.worldscibooks.com/compsci/p724.html> and [http://www.ait.edu.gr/ait\\_web\\_site/faculty/apne/AV\\_tracking\\_book.html](http://www.ait.edu.gr/ait_web_site/faculty/apne/AV_tracking_book.html))

### Publications in Journals & Magazines

- By the part of ICCS, the following white paper: Ch. Z. Patrikakis, N. Papaoulakis, N. Doulamis, Ch. Stefanoudaki, C. Goktug Gurler, Burak Gorkemli, "Personalized Media Distribution Technologies over the Internet" has been submitted to the Internet Protocol Journal – Cisco Systems and, depending on the outcome of the evaluation, it is expected to be a good reference point for many students and have large impact, as it has happened in the past with other work of ICCS that has been presented there.
- INOV will publish the article "IPTV architecture for an IMS environment with dynamic QoS adaptation" in Springerlink, Multimedia Tools and Applications: Volume 53, Issue 3 (2011), Page 557. (<http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s11042-010-0537-8>)

### Business oriented dissemination

#### Atos Origin

#### Global Key Offering: New Media in Sport

Atos Global Key Offerings enables enterprises to reduce costs, create value and achieve a real competitive advantage. Each one demonstrates the company's commitment to state-of-the-art solutions and underlines Atos's drive for innovation.

For this year, Atos Origin has planned many meetings where My eDirector 2012 results will be presented. Some of them are:

- **February 22<sup>nd</sup> to 23<sup>rd</sup>, 2011**: My eDirector 2012 was presented in the event called "Estrategia Digital Española. Horizonte 2015", in the conference "New digital communication and new user experience (NEW MEDIA IN SPORT + My eDirector 2012)" which will be held in Madrid.
- **February 14<sup>th</sup> to 17<sup>th</sup>, 2011**: My eDirector 2012 was presented in Mobile World Congress

event, in New Media in Sports sessions that took place in Barcelona.

- **March 23<sup>rd</sup> to 25<sup>th</sup>, 2011**: Atos was presented My eDirector 2012 solution in Canada-EU Future Internet Workshop: Future Internet, that took place in Waterloo, Canada.
- **April 9<sup>th</sup> to 14<sup>th</sup>, 2011**: Atos was presented My eDirector 2012 results in the Digital Media Industry Event for Video, Audio Film and Communication Professionals (**NAB** 2011 which will take place in Las Vegas, Nevada, USA).
- **May 3<sup>rd</sup> and 4<sup>th</sup>, 2011**: Business Strategy meeting in Barcelona.
- **May 12<sup>nd</sup>, 2011**: Global Management Meeting with Telecom, Media & Services (TMS) Market, in Utrecht
- **May 19<sup>th</sup>, 2011**: Atos Research and Innovation (ARI) and Atos Media France meeting related to New Media Solutions in Paris

All the previous events were scheduled before the extension of the project, for this reason we consider that they should be mentioned in this document as they were planned as post-project dissemination events where My eDirector 2012 should be presented.

For the rest of the year, Atos plans to present My eDirector 2012 solution in the following events:

- **June 8<sup>th</sup>, 2011**: New Media in sports presentation at Group Telegraaf in Utrecht
- **June 16<sup>th</sup>, 2011**: ARI Media presentation at Atos UK, focused on New Media in Sports, in London.
- **September 8<sup>th</sup> to 13<sup>rd</sup>, 2011**: Atos will present My eDirector 2012 results and solution in **IBC** 2011, the leading global tradeshow for professionals engaged in the creation, management and delivery of broadcasting media and entertainment. It will take place in Amsterdam.