

Roadmap for Music Information ReSearch

FP7-ICT-2011-7

Coordination and support action

Project number: 287711

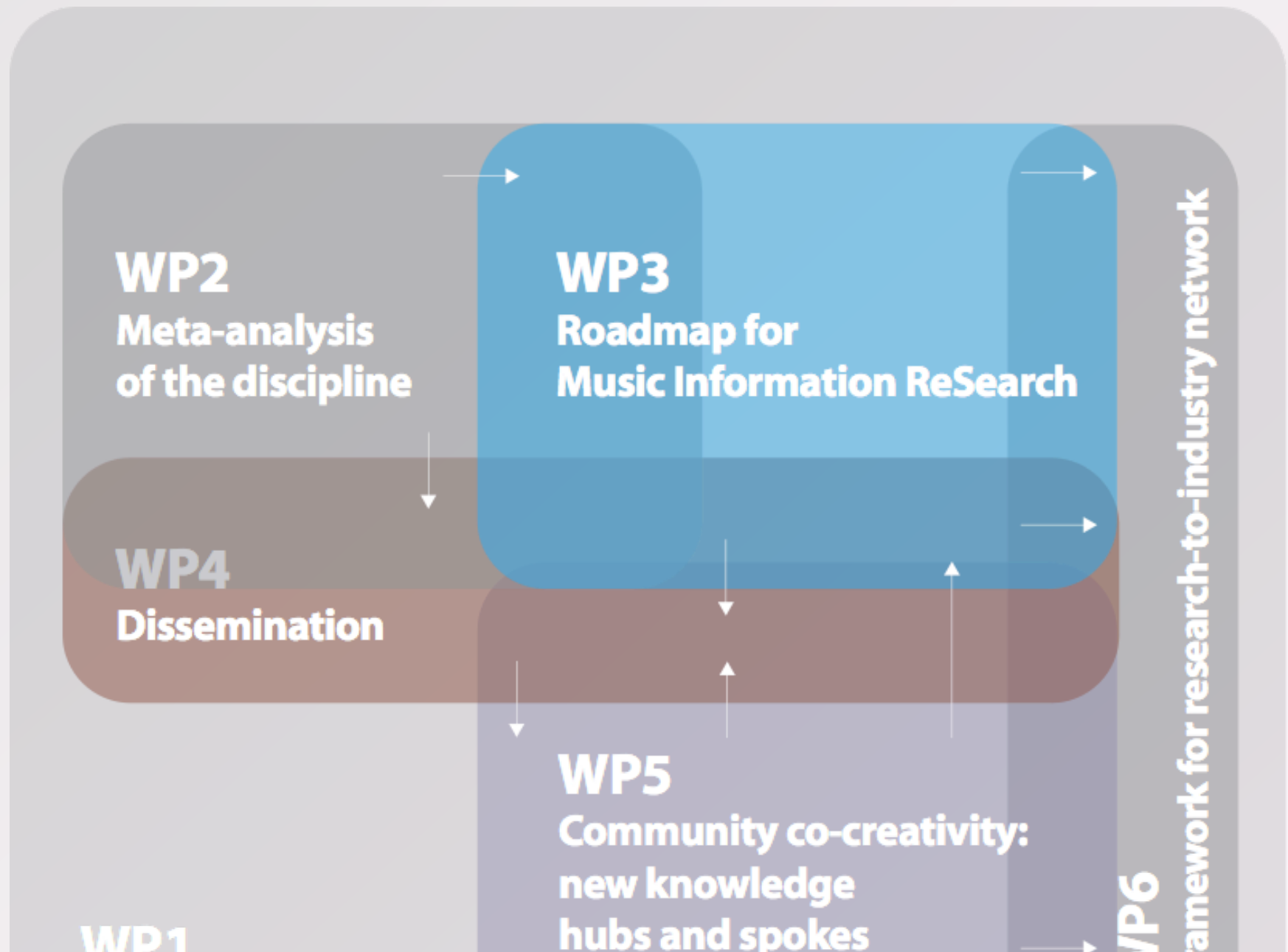
Partners

- ▶ Universitat Pompeu Fabra - Music Technology Group, Barcelona, Spain (administrative and financial coordinator)
- ▶ Stromatolite Design Lab, London, UK (scientific coordinator)
- ▶ OFAI, Austrian Research Institute for Artificial Intelligence, Vienna, Austria
- ▶ INESC, Instituto de Engenharia de Sistemas e Computadores, Porto, Portugal
- ▶ IRCAM, Institut de Recherche et Coordination Acoustique/Musique, Paris, France
- ▶ Centre for Digital Music, Queen Mary, University of London, UK
- ▶ BMAT, Barcelona Music and Audio Technology, Barcelona, Spain

MIReS

The field of Music Information Retrieval (MIR) has centered primarily on the analysis of sound signal for the purpose of more efficient search and faster access to digital collections of recorded music. By expanding its context and addressing challenges such as multimodal information, multiculturalism and multidisciplinary MIR has the potential for a major impact on the future economy, the arts and education, not merely through applications of technical components, but also by evolving to address questions of fundamental human understanding, with a view to building a digital economy founded on "uncopiable intangibles": personalisation, interpretation, embodiment, findability and community. Within this wider context we propose to refer to the field of MIR as Music Information ReSearch (MIReS) thus widen its scope, ensuring its focus is centered on quality of experience with greater relevance to human networks and communities.

WP structure and interdependencies



Three MReS perspectives

- ▶ technical-scientific
- ▶ music-centered
- ▶ commercial-technological

MIReS definition from the technical-scientific perspective

Music Information ReSearch (MIReS) comprises research aimed at processing music-related digital data with the goal to develop music applications. This includes the organization of the available digital information about music, the development of new methodologies to process and understand that information and the development of technologies for specific music applications that take advantage of the data processing methodologies.

MIReS technical-scientific challenges

- ▶ How can MIR generate more meaningful musical descriptors?
- ▶ What data is available that has not been exploited by the research community?
How can we make it available?
- ▶ What data processing methodologies are known from other research fields that have not yet been exploited/tested by our research community?
- ▶ What music applications have not been looked into that could benefit from a data-driven approach?
- ▶ How can performance of fundamental audio to score/harmony/melody/structure transcription methods be improved?

MIReS definition from the music-centered perspective

Music Information ReSearch (MIReS) comprises research aimed at providing computer-based technology that permits music producers and listeners to easily and intuitively discover, transform, interact with, and enjoy music in novel ways automatically finding, analysing, and interpreting music-related information. The information may relate to the music itself, to musical behaviours, or to relevant socio-cultural contexts.

MIReS music-centered challenges

- ▶ Multiculturalism: does MIReS pay due attention to the musics of the world?
- ▶ Does MIReS consider all relevant musical behaviours and music-making? Does MIReS pursue and exploit the artistic and expressive potential of music in adequate ways?
- ▶ Does MIReS consider the social and collaborative perspective?
- ▶ Does work with high-level descriptors require new valuation standards based on qualitative assessment?
- ▶ Does MIReS pay enough attention to music research performed by other fields of science and humanities?
- ▶ Does MIReS offer enough support to creativity/education/training?
- ▶ How can MIReS contribute to music production and digital library management standards?

MIReS definition from the commercial-technological perspective

Music Information ReSearch (MIReS) comprises research aimed at producing technology for storing, organising, retrieving, delivering, displaying, connecting information related to music, with the goal of enabling novel user experiences, commercially successful large-scale applications, services and distribution channels for players in the digital media industry.

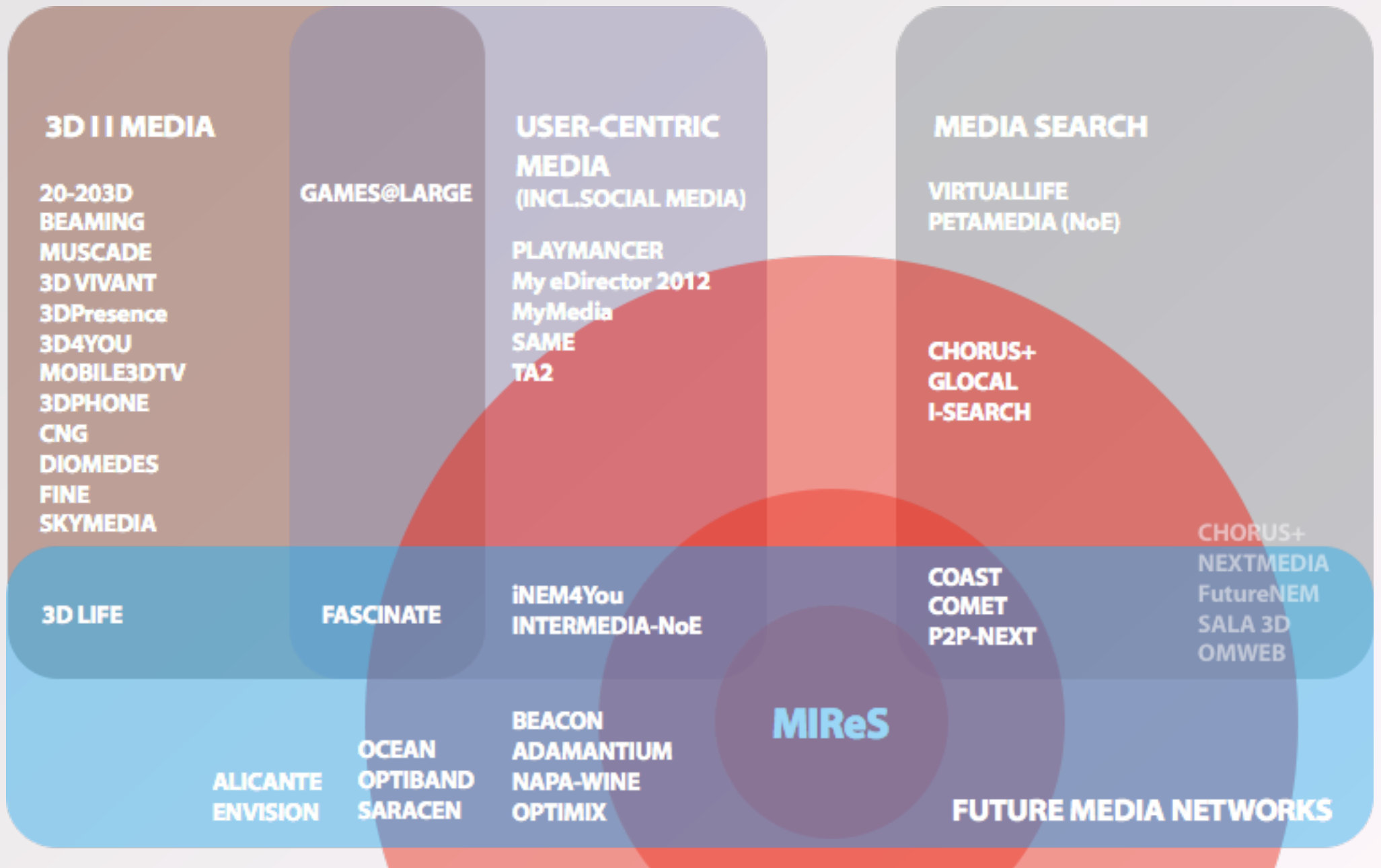
MIReS commercial-technological challenges

- ▶ Scalability
- ▶ Interfaces which enable multiple uses and interpretations for the mass market (awareness/exploitation of full application potential: entertainment, gaming industry, arts, advertising, film)
- ▶ Multi-modality: integration with other media and modalities
- ▶ Integration with physical environments and networks: tangible interfaces, performances, installations, exhibitions
- ▶ Access to audio for research purposes

MIReS events in 2012

- ▶ Delhi, KIIT, 20-22 January 2012: MIReS CompMusic and Multiculturalism workshop, International Symposium Frontiers of Research on Speech and Music (FRSM - 2012)
- ▶ London May 2012 (tbc), Trend-Spotting Industry MIReS Event (MIReS.cc)
- ▶ Seville 20th April MIReS multicultural workshop as part of the FMA workshop (<http://congreso.us.es/infla3/en/>)
- ▶ London, Music Discovery and Creativity Workshop 18-20 May (tbc), co-organised by MIReS (MIReS.c)
- ▶ Paris, MIR and Creation workshop, as part of the Agora Festival, IRCAM, June (tbc), organised by MIR (http://www.ircam.fr/festival_agora.html?L=1)
- ▶ Barcelona, Sonar, MIReS Music Hack Day, 14-16 Jun (www.sonar.es)
- ▶ Istanbul, 18-23 June 2012: General CompMusic workshop with invited researchers and musicologists organised by MIReS (MIReS.cc)
- ▶ London CMMR "Music and Emotions" 19-23 Jun, panel discussion organised by MIReS (<http://www.cmmr2012.eecs.qmul.ac.uk/>)
- ▶ Copenhagen SMC 12-14 Jul, MIReS tutorial (<http://smc2012.smcnetwork.org/>)
- ▶ Golden Horn, Music Hack Day as part of Music Innovation Fest, 7-9 Sep (tbc) organised by MIReS (MIReS.cc)
- ▶ Porto October 8-12, ISMIR, a series of MIReS discussion panels (<http://ismir2012.ismir.net/>)

Community involvement





Thank you