



Immersive Coverage of  
Spatially Outspread  
Live Events

## Project Overview

Jürgen Schmidt (Technicolor)

**Marcus Thaler (JOANNEUM RESEARCH)**

Audio Visual Gestalt Workshop

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# Facts brief



## ■ Partners



## ■ Runtime

- Start: Oct. 2013
- Finish: Sept. 2016

## ■ Major milestones

- First demo
  - Sept. 2015
- Second demo
  - Sept. 2016



# Motivation

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- Enable a more comprehensive and immersive experience of live events
  - both for media consumers at the event and remote
  - deliver content to broadcast, web, second screen and mobile
- Many events are spread over large areas
  - only very high-profile events can be fully covered by professional sensors
  - seamlessly integrate professional and user generated content

# Scenario

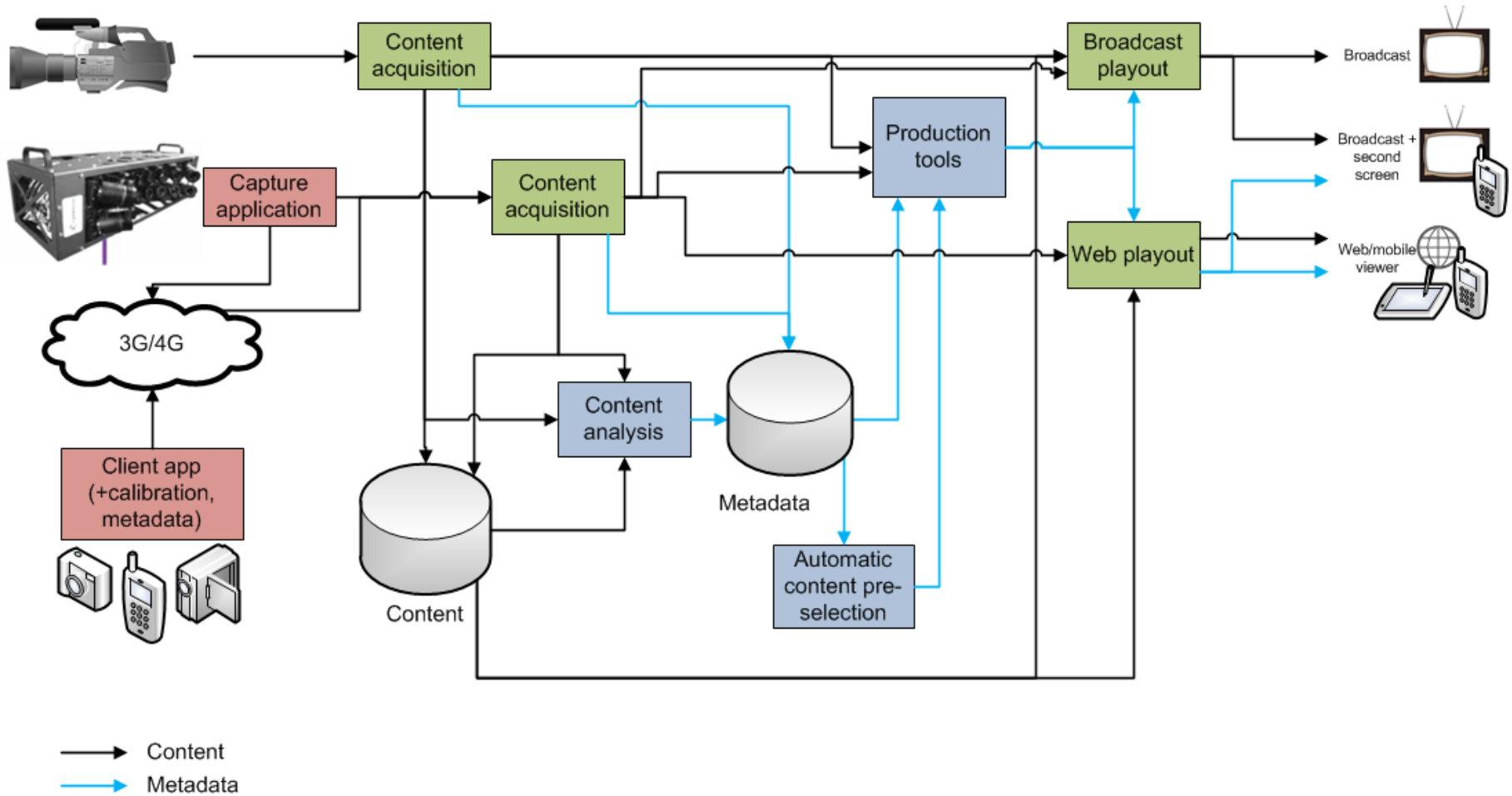
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- Festival, e.g. Gentse Feesten, Glastonbury
- Many stages, many parallel performances
- Professional production teams cover schedule of performances
- Omnidirectional cameras and microphones capture action on stage and audience
- Users sign up for delivering UGC in return for incentives
- Automatic analysis and filtering of the incoming streams
- Editing of a live main stream
- Users can watch live TV stream, navigate other streams on the second screen, on the web, on mobile devices (on location or remote)
- Entire coverage of the festival is available for later replay



# System envisaged by ICoSOLE



# Objectives

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- Research and develop tools and services for covering spatially spread-out live events using hybrid broadcast-Internet technologies
- Research and develop approaches for integration of content from professional and consumer capture devices, including mobile sensors, based on metadata and content analysis, and methods for fusing visual and audio information into a coherent data representation
- Research and develop a networked platform for live streaming of high-quality audio-visual content
- Research and develop methods to capture, extract and annotate metadata during the production process and integrating this metadata throughout the entire production



# Research areas

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- Content capture
- Video content fusion
- Video content selection/filtering
- Professional production tools
- Content distribution
- Audio production/delivery/presentation

# First results

## ■ Test Content

- 10 musicians from BBC Philharmonic orchestra
- 16 takes in 4 setups
- 4K, HD, GoPro, smartphones, tablets
- Spot microphones on each instrument, microphone arrays for surround sound with height
- <https://icosole.lab.vrt.be>, available under CC-BY-NC 4.0 license

