

## 1. The European Centre of Excellence in Socio-Ethical Video-Analytics Research

- **Big Data, Internet of Things**, smart cities, crowd-sourcing for harvesting of collective intelligence, social/criminal networks analytics, video/data (stream) mining, Earth Observation, environmental monitoring, precision farming
  - **Secure, mobile cloud services**, ICT-enabled Public Sector Innovation
  - **Cyber-Physical Systems**, cloud security, trusted e-services, identity management, critical infrastructure protection, border/coastal surveillance
  - **Secure Societies**, holistic privacy impact analysis, privacy-preserving and socio-ethically reflective co-design methodology (UI-REF) to support co-innovation and accountability engineering, requirements prioritisation and user-centred dynamic usability evaluation, sustainability and socially responsible innovation
- **ICT for Energy Efficiency – Smart Grid**, energy prosumers retail trading marketplace, cooperative intelligent transport, water management
  - **Risk Management**, simulation platform, agent technology, policy modelling, e-government
  - **Gamification/ Serious Games** for behaviour transformation, multimodal natural HCI, pervasive augmented search and mobile web 3.0., networked semantic media
  - **Robotics and Robotics Use-Cases**, cognitive control systems, disability support including exo-skeletons for rehabilitation engineering, music therapy solutions etc., factories of the future, human-robot teams cooperation support, secure sensor networks middleware platform (LinkSmart), real-time embedded systems e.g. FPGA/GPU-enabled hardware acceleration for real-time video-analytics and safety solutions in a wide range of application domains
    - **mHealth/eHealth** - personalising health and care service robotics for active, healthy and independent living (AAL), companionable and social robotics for integrated care ecosystems, early risk detection and intervention for healthy ageing, semantic-digital representation of health data for prognosis decision support systems and disease management.
    - **Multimedia (audio-video) Content Analytics**, language technologies, cultural heritage protection and curation.
    - **Collective-Awareness Platforms**, participative engagement, co-creativity support platforms, technology-enhanced learning/cloud-based mobile and accelerated learning.

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