# Consumption OptimizatioN in VIdeo Networks CONVINcE

Project focus

CONVINcE addresses the challenge of reducing the power consumption in IP-based video networks with an end-to-end approach, from the Head End where contents are encoded and streamed to the terminals where they are consumed, embracing the Content Delivery Networks and the core & access networks.

Energy saving is a key challenge for the European Union and the CONVINcE project contributes to win this challenge. On top of this, the project helps to boost the competitiveness of the European industry in this area.
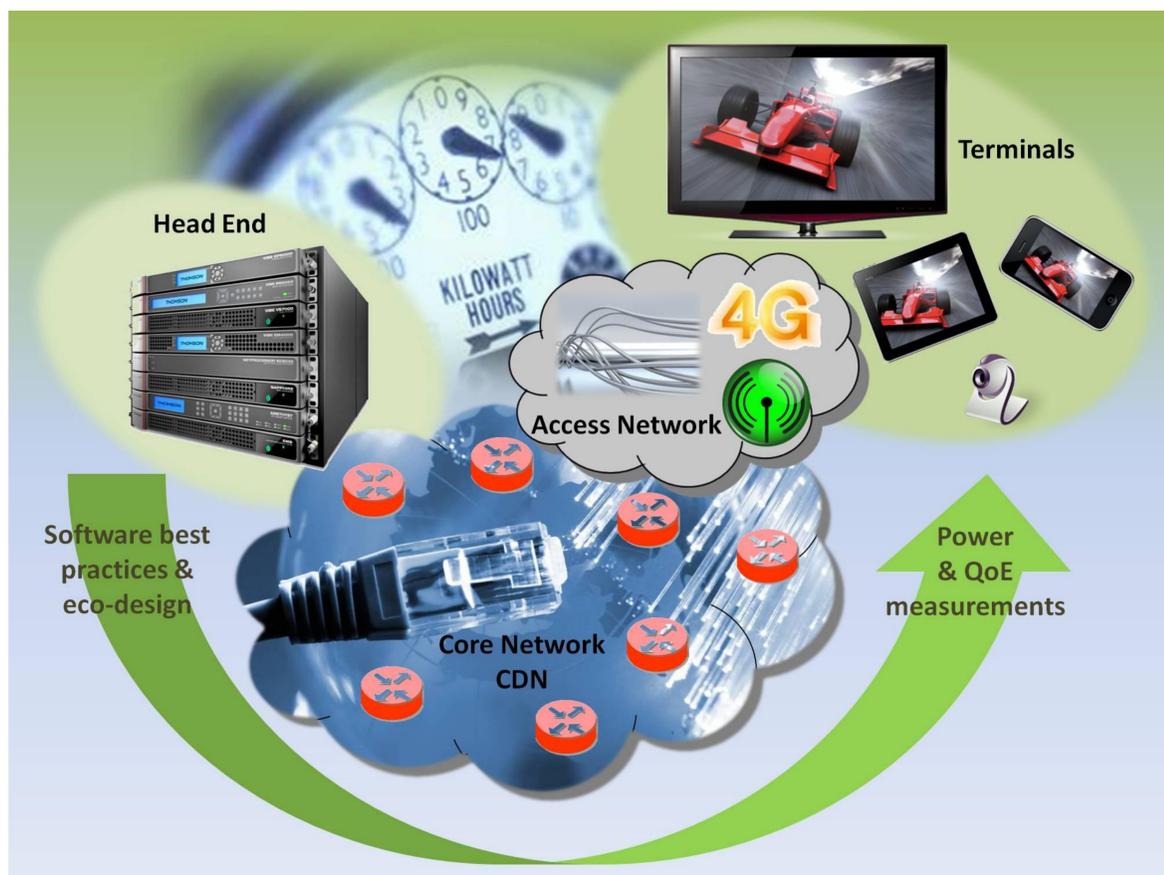
Research topics

The project addresses a wide range of topics related to technologies used for video encoding and delivery encompassing the following:

- Video encoding and transcoding, adaptive bit streaming,
- Core/metro networks, access networks, 4G, routing protocols,
- Content Delivery Networks,
- Software Defined Networks,
- Set Top Boxes,
- Fixed and mobile terminals.

CONVINcE also runs transversal activities to foster the end-to end approach of consumption optimization:

- Software best practices and eco-design,
- Power and Quality of Experience measurements.

Expected results

CONVINcE builds demonstrators targeting to test the developed technologies. Results from these tests will be disseminated through contributions to standardization and best practices. The results will mainly cover the following areas:

- Hardware and software architectures (in particular on emerging paradigms such as edge-cloud),
- Optimization techniques of the energy consumption for Video encoding and delivery over IP-based networks,
- Protocols, basic technologies in the devices,
- Measurement tools for assessing the end-to-end consumption.

Project Partners

- Blekinge Institute of Technology (SE)
- CEA List (FR)
- Ericsson (FI)
- Exfo (FI)
- Institut Mines TélécomSudParis (FR)
- IPA (RO)
- Kaliterre (FR)
- Lund University (SE)
- Orange Labs (FR)
- Sony Mobile Communications (SE)
- Teleste (FI)
- Telhoc (SE)
- Tellence Technologies (RO)
- Terranet (SE)
- Thomson Video Networks (FR)
- University of Oulu (FI)
- Vestel (TR)
- VTT Technical Research Centre of Finland (FI)

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