

A horizontal bar composed of two solid colored rectangles: a red one on the left and a yellow one on the right, both of equal length and height.

FLAME

FACILITY FOR LARGE-SCALE ADAPTIVE MEDIA EXPERIMENTATION

Project Overview

WWW.ICT-FLAME.EU



The Invisible Infrastructure

Motivation: The Invisible Infrastructure

Over-the-top content (OTT) refers to delivery of audio, video, and other media over the Internet without the involvement of a [network] operator in the control or distribution of the content

Current Online Media Services



(source: ottsource.com/ott-blog)

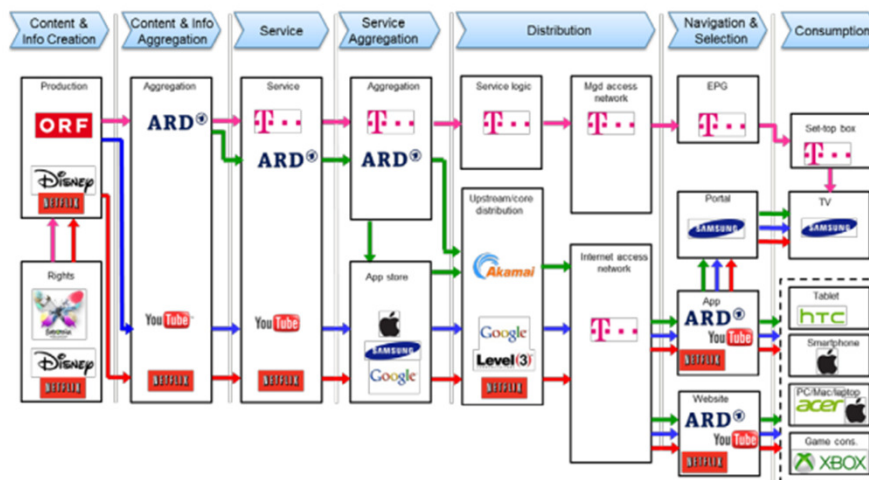
Future Online Interactive Media Services



(mixed reality, tele-immersion, etc.)

Problem: Linear Content Distribution

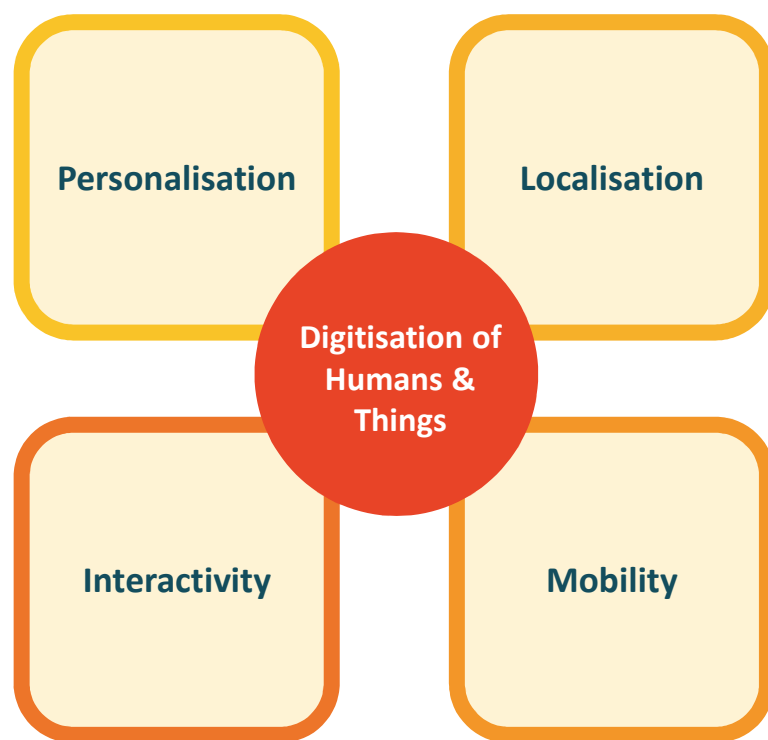
OTT providers unmanaged services (no control over access networks) do increasingly take measures to enhance service performance by investing in content distribution infrastructure (clouds and CDNs)



source: TNO, 2015 – Distribution of Eurovision Song Contest

- Scalability breaks the end-to-end and neutral nature of the original IP architecture
 - e.g. one company (Akamai) serves 30% of the Internet
- Large players (e.g. Google) cache data very close to users' Internet service providers (ISPs)
 - 85% of Internet users are one-hop away from an Akamai cache
- Only "large-players" can afford to invest in caches placed in ISPs – what does this say about "net neutrality"?
- DNS redirection or HTTP redirection are costly (needing deep packet inspection)

Demand continues to be...more demanding



Increased connectivity, speed and reach
Increased participation and generativity



Unprecedented dynamics and structural
changes in business models, content
production and delivery processes

Wide range of digital content characteristics



The Future Media Internet Ecosystem

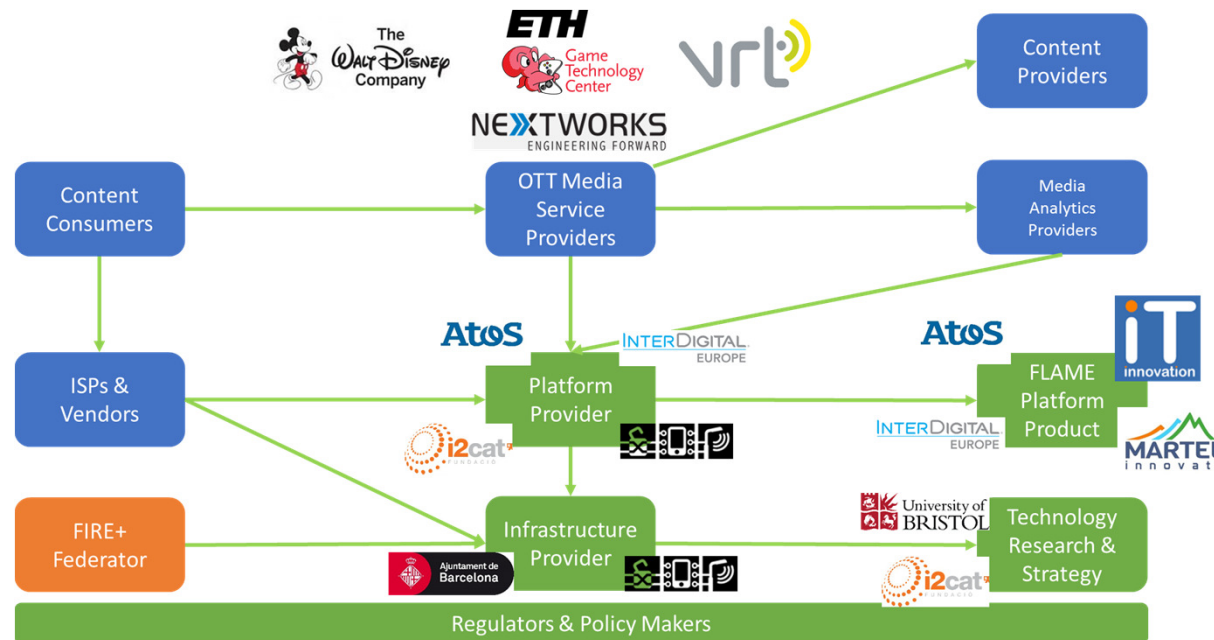
Building the FMI ecosystem – The Ambition



FLAME aims to establish an FMI ecosystem based on the Experimentation-as-a-Service (EaaS) paradigm that supports large-scale experimentation of novel FMI products and services using real-life adaptive experimental infrastructures encompassing not only the compute and storage facilities but also the underlying software-enabled communication infrastructure



FLAME is building a transformational future media internet ecosystem

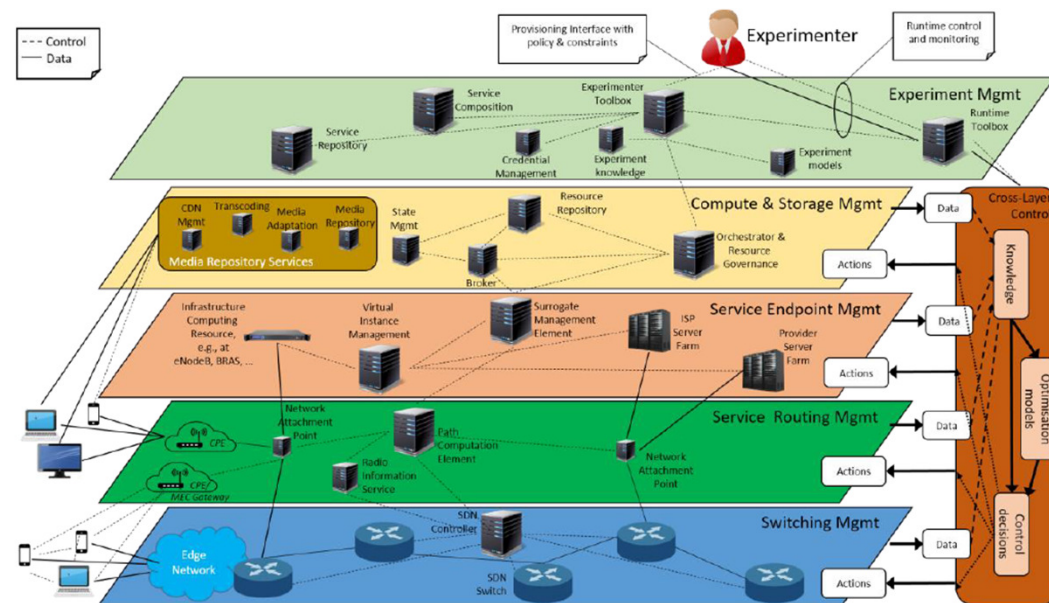


3 years Research & Innovation Action (Jan-17 to Dec-20), EUR 6.9M Budget, 11 Partners

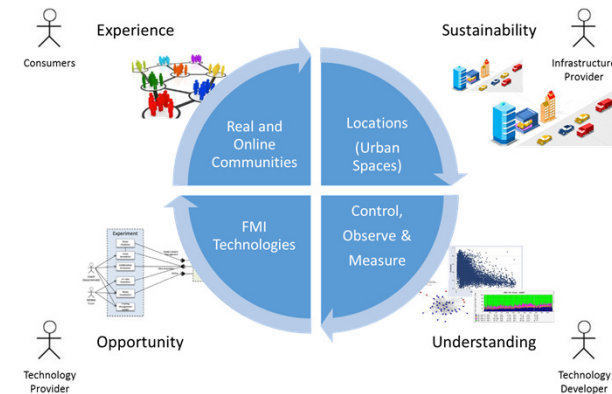
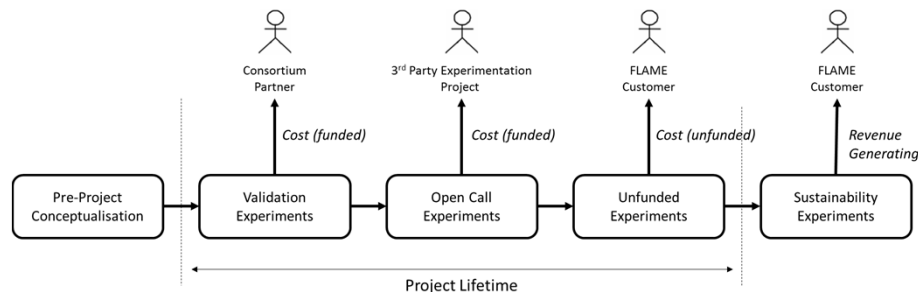
FLAME is building a flexible service delivery platform



- A new dynamic content production and delivery platform
 - layered modular architecture with cross layer optimisation, analytics and control
 - distributed computing models that combine media cloud with mobile edge
 - software-defined infrastructure (NFV, ICN, SDN) to support service endpoint management, routing and switching
 - VSN defines a network of media services utilising infrastructure
- Supporting enhanced Quality of Experience
 - personalised, interactive, mobile and localised media services



FLAME is using an experimental approach



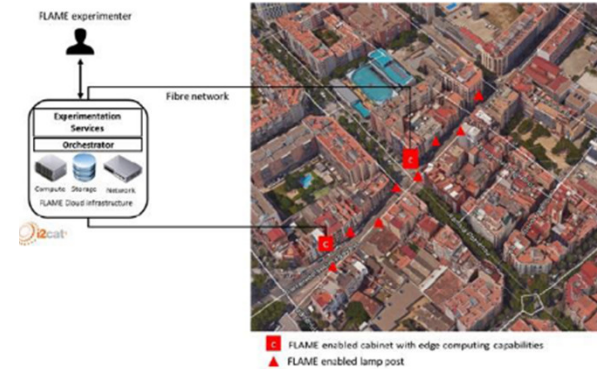
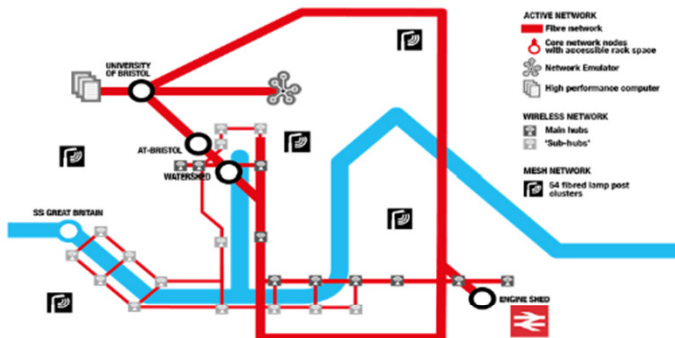
INITIAL VALIDATION EXPERIMENTS

- Participatory Media for Interactive Radio Communities (VRT)
- Collaborative Interactive Transmedia Narratives (DRZ)
- Augmented Reality Location-Based Gaming (EZH)
- Personalised Media Mobility in Urban Environments (NXW)

FLAME is using an experimental approach

EXPERIMENTAL INFRASTRUCTURES

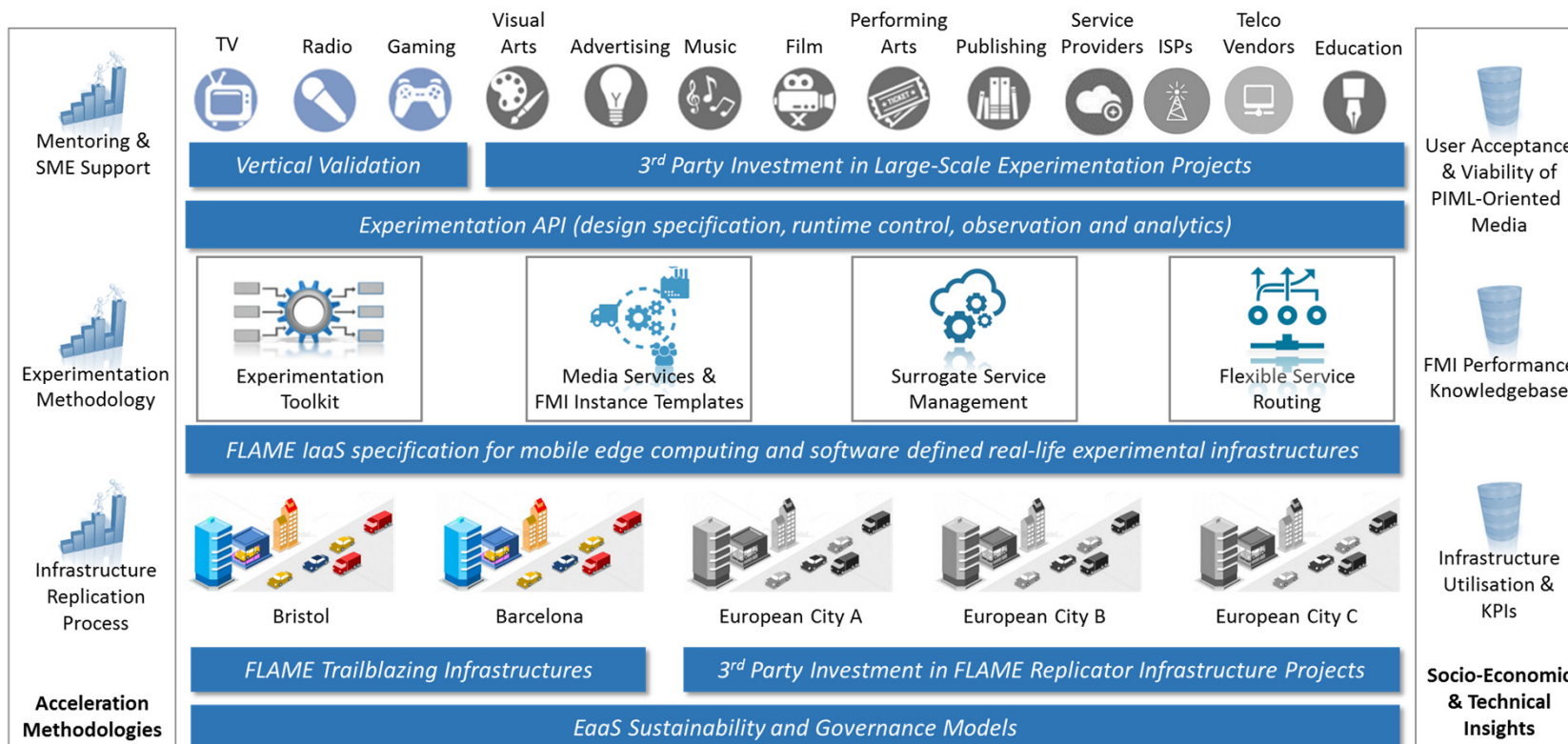
- Bristol
- Barcelona





The FLAME Offering

The FLAME Offering



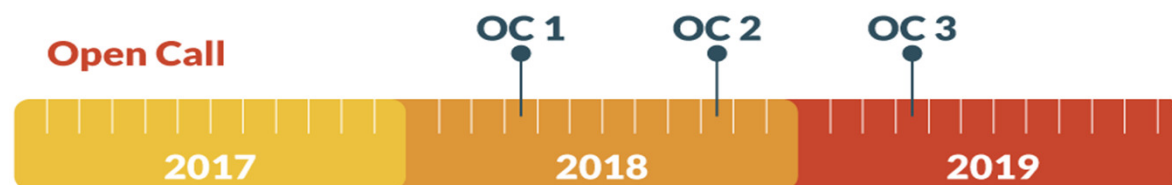
Technical and Business Value Offering

FLAME will offer a **highly flexible platform** for media service delivery, **experimentation tools** to observe and control what runs on the platform, **funding** to engage into the experimentation platform, an **FMI knowledge base** to incrementally capture system behaviour, **consultants** providing know-how in FMI experiment design and city environments to engage users in urban scale trials



FLAME is investing to grow the ecosystem and increase our impact

- FLAME will invest 2.2 Million Euros in the creation of the Future Multimedia Internet ecosystems
 - 3 new cities and ecosystems
 - 3 large industry trials
 - 20 SME/Start Ups trials
- Investments are planned in 3 waves / Open Calls





Ready to take off? Follow us!

FLAME Online



www.ict-flame.eu



info@ict-flame.eu



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THANKS FOR YOUR ATTENTION!



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