



Closing Session

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Vice- Chairman – New European Media
@NEM_initiative

November 24th

NEM SUMMIT 2021

DAY 1

- Session 1: **Opening session**
- Session 2: **Future of media distribution**
- Session 3: **Post Covid19 – challenges and solutions for cultural and creative industries in Europe**

Day 2

- Session 4: **Media for vertical industry sectors**
- Session 5: **New Immersive Media Formats**



Opening Session

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CONNECT G.2 – Interactive Technologies, Digital for Culture and Education

- Bringing European Cultural Heritage into the digital age**
 - Digitisation, online access, digital preservation - eArchiving
 - Digital transformation
 - Europeana
 - Cultural Heritage Data Space
- Education systems fit for the digital era**
 - Connectivity and digital capabilities in schools
 - EU Student eCard
 - Emerging technologies in learning and education
- Transforming digital experiences with XR**
 - Encouraging applications across sectors
 - Supporting wider adoption
 - R&I meeting European values

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NEWS MEDIA and AUDIOVISUAL at a glance

€131 billion + €62 billion = €193 billion turnover*

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S+T+ARTS

Technology is experience (Steve Jobs)
 Art is experience (John Dewey)

STOP THINKING ABOUT ARTWORKS AS OBJECTS AND START THINKING ABOUT THEM AS TRIGGERS FOR EXPERIENCES. – BRIAN ENO

S+T+ARTS: feedback loop between science thinking, technology thinking and art thinking.
 The critical point is that artists and engineers are willing to leave their comfort zones and their certainties about their respective roles.

- **Chair:** Halid Hrasnica, Eurescom
- **Key notes from the European Commission:**
- **The Media Action Plan**
- **Interactive technologies, Digital for Culture & Education**
- **S+T+ARTS – art-driven design and experimentation”**

Future of Media Distribution

- **Chair:** Pierre-Yves Danet, Orange
- Presentation of the main project EC projects on 5G
- Presentation of the **Smart Network Services Joint Undertaking**
- Presentation of the **Joined NEM/NetworkEurope Working Group**

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Agenda

- Presentation 5GPPP Media projects
- 5GMedia project (Ultra High Definition over Content Delivery Network, Remote Production, Immersive Media and Virtual Reality): Francesco Nucci (Engineering)
- 5G Victori project (CDN services in dense, static and mobile environments): Cristian Patachia (Orange Romania)
- 5Gtango project (Immersive Media): Francesco D'Andrea (Atos)
- 5G-Picture project (Mega-Event in stadium): Daniel Camps Mur (I2CAT)
- 5Gcity project (Ultra-high definition Video Distribution and Immersive Services, Video Acquisition and Production with Community media engagement in live events): Daniel Camps Mur (I2CAT)
- Presentation of the SNS JU : Pierre-Yves DANET (Orange France)
- Presentation of the Joined WG NEM/NetworkEurope: Pierre-Yves DANET (Orange France)
- Q&A

Chair: Pierre-Yves Danet, Orange

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Background & Motivation

Status & future trends

- **Fast-growing Media & Entertainment vertical industry**
- Traffic related to **Virtual Reality (VR)** applications to increase 5x between 2015 and 2020, at 127% CAGR
- **Internet video** to TV 3.6x by 2021, 20% of consumer internet video traffic by 2021, up from 24% in 2016
- **Live streaming (LSD) media contents** at 30% of VoD traffic in 2021, up from 2% in 2016
- **Consumer streaming (VoD) traffic** nearly doubled by 2020
- By 2020, 64% of all internet video traffic will cross CDNs, up from 45% in 2015

NEEDS and PAINS

- Expensive equipment
- High vendor lock-in
- Strong hardware dependency
- Dedicated connections

Media content providers call for solutions to design custom **Architectures for replication, distribution and adaptation of contents** reducing vendor lock-in and ensuring efficiency

5G as driver to match these M&E industry challenges

5G PPP 5G MEDIA

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5G-VICTORI

Vertical demos over Common large scale field Trials For Rail, energy and media industries

NEM Summit 2021, November 23
Cristian Patachia

<https://www.5g-victori-project.eu/>
<https://twitter.com/5gVictori>
<https://fr.linkedin.com/company/5g-victori>

European Commission Horizon 2020 Research and Innovation 5G PPP

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Description of the service

Enhanced Immersive Live Streaming

4K-360 video plus secondary streams and social media

Video transcoding in the edge

Cloud native deployment

Orchestrated by SONATA

NFV orchestrator

IMMERSIVE MEDIA

5Gtango

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5G-PICTURE:

Automated network service provisioning for media applications in stadium scenarios

Presenter: Daniel Camps Mur (I2CAT)

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European Commission Horizon 2020 Research and Innovation 5G PPP

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5GCity

A DISTRIBUTED CLOUD & RADIO PLATFORM FOR 5G NEUTRAL HOSTS

5GCITY – On-slice for remote production

Dr Daniel Camps Mur (I2CAT)

23 Nov 2021

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Smart Networks and Services JU

Towards a 6G European Initiative

5G PPP - Bridging phase 1 flagship + 8 6G exploratory projects

Industry 6G Partnership Proposal-Smart Networks & Services

6G SNS IA

Accelerating 5G Deployment: CE2J, pan-European corridors for Connected Cars

6G Vision and Comprehensive

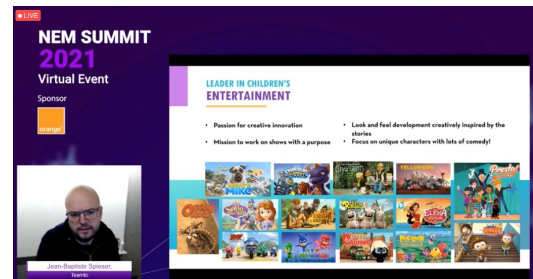
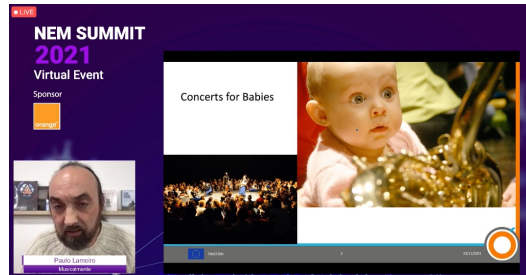
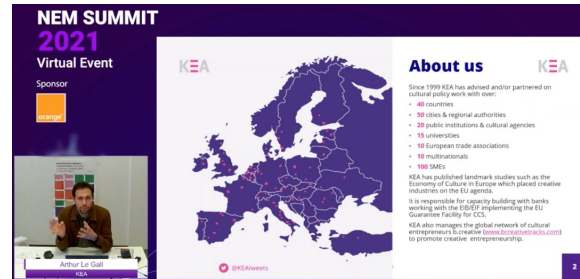
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Joined WG NEM/Network Media & Content in the SNS context

23 November 2021
pierre.yves.danet@orange.com

Post Covid19 – challenges and solutions for cultural and creative industries in Europe



- **Chair: Malte Behrmann**, bbw-hochschule, Berlin
- General discussion with **view of researcher (KEA)** and **two artists (La Fura & Musicalmente)**
- specific discussion on **changes in working methods (Gema & Teamto)**

Media for vertical industry sector

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4. Future Media Applications and Challenges

To elaborate and experiment with media services and technology in key industrial sectors.

4.1 New European converged and social media technologies for other vertical sectors: Applying media technology in verticals beyond CCI like Transport, eHealth, Autom... Energy, Factories of the Future

4.2 Social eXtended Reality: Leverage future media formats and smart network for human-human communication and collaboration in mixed and virtual reality environments. Enable holoconferencing, XR meetings, distance training

4.3 UX: Immersive and Interactive technologies for content and creation: Further development of XR enablers to achieve natural vision and interaction through new interfaces

Silvia Boli, Engineering
Presentation of the NEM SRIA

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COPA EUROPE: eSports, eGames, Sports

Technical Support

Baruch Altman, LiveU
Key note: Education, Entertainment, CCI

REINVENTING LIVE

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What is "Media"?

The main means of mass communication (broadcasting, publishing, and the internet) regarded collectively.
<https://www.encyc.com/dictionary/media>

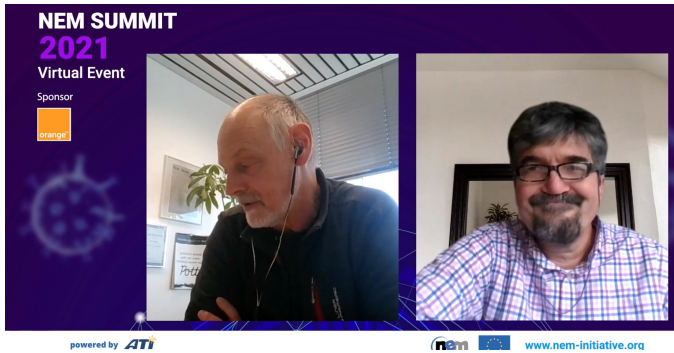
Traditional: 1-to-all, Broadcast
Online: 1-to-many, "multicast"
Social, "Meta": many-to-1, "unicast", personalized

Baruch Altman, LiveU
Key note: Education, Entertainment, CCI

REINVENTING LIVE

- **Chairs:** Pierre-Yves Danet, Orange.
- **NEM SRIA** presentation
- **how media technologies** initially developed for CCI and Entertainment **can be also used by other verticals**

New immersive media formats

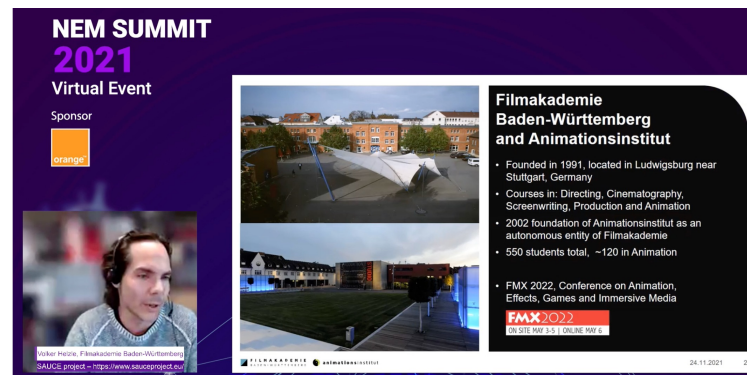
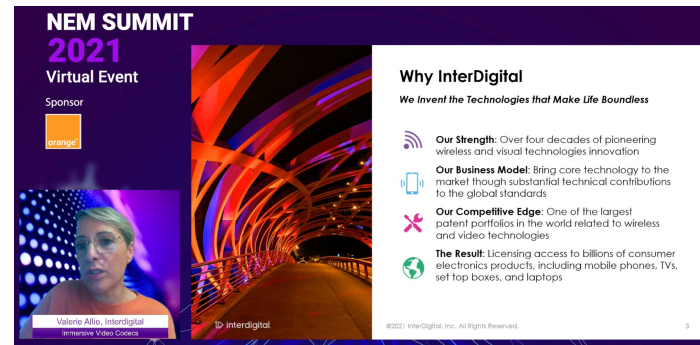


- **Chairs:** Thorsten Herfet (University of Saarland), José Manuel Menéndez (Universidad Politécnica de Madrid), Sergi Fernandez Langa (i2cat)

- **Invited talks:**

- *Multisensory Media*
- *Immersive Audio with MPEG-H and MPEG-I,*
- *Immersive video Codecs*
- *3D Light Field Displays and Rendering*

- Presentation of 2 EC projects: **SAUCE, INVICTUS**



Main conclusions from the sessions

1. We are ready for further innovation in the media and CCI sectors in terms of **content production** (new media format), **content distribution** (smart networks) and **content consumption** (creative UX – immersivity and interactivities - XR)
2. Exploit media technology in other **vertical industries**
3. Fostering **collaboration** among different sectors and industries is a must
4. **Interdisciplinary** research is key



Now, we are ready to.....

- ... adopt innovation in real environments!
- ... do a step forward!
- ... make Europe more competitive!



But we cannot do anything without your support and your real engagement in the Community!

CONTACTS

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NEM Social Network