

# 1<sup>st</sup> Spanish Demonstrator

October 2013

# Demonstrator features

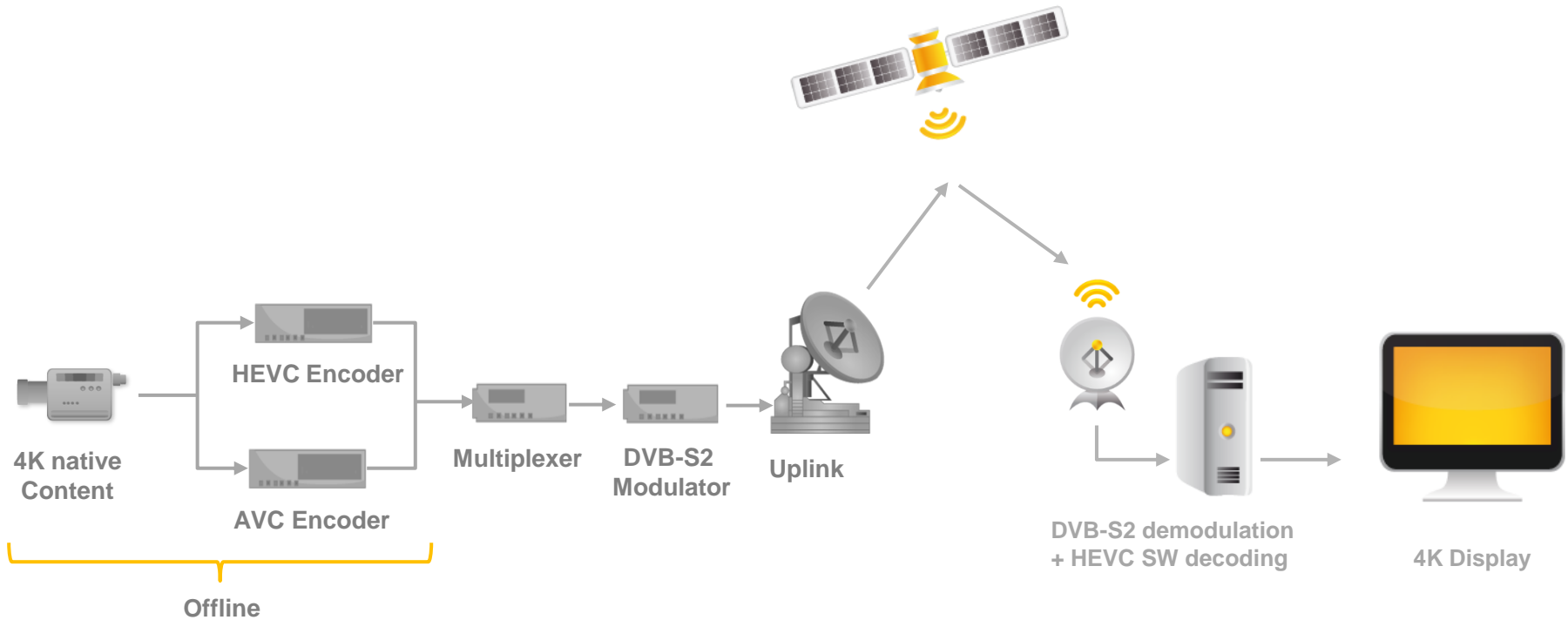
---

## UHDTV HEVC & AVC encoded content broadcast over Satellite network

- Simultaneous transmission of HEVC and AVC encoded contents
  - Offline encoding by **Thomson Video Networks** VS7000 encoder
  - Different bit rates were tested
  - Final demo @ IBC2013: 18Mbps with HEVC
- DVB-S2 transmission over **Hispasat** 1E satellite
- Receiver based on a PC with
  - A 4K graphics board + DVB-S2 demodulator board
  - HEVC SW decoder delivered by **IETR**
  - GPAC player from **IMT Telecom ParisTech**

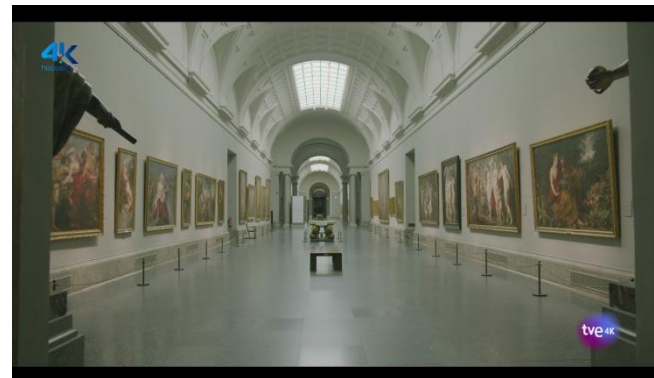
**First satellite channel in the world to achieve a UHDTV transmission below 20 Mbps !**

# Demonstrator Architecture



# Demonstrator Parameters

- Satellite parameters:
  - Hispasat 1E located @ 30°W
  - Frequency: 10703 MHz
  - Polarization: Vertical
  - Modulation and coding: DVB-S2 8PSK  $\frac{3}{4}$
  - Symbol Rate: 30 Msps
- Encoding parameters:
  - Bit depth: 8 bits
  - Frame rate: 25 fps
  - Bit rate
    - AVC: 35Mbps
    - HEVC: 18 Mbps
  - HEVC Wavefront coding (WPP)



# H2B2VS Demo Channel

---

The UHD channel will be available during the project lifetime  
(from 01/09/2013 to 30/09/2015)

It is “free to air” available for anyone in Europe with an antenna  
pointing to Hispasat 1E

The channel will evolve with the project by adding new  
contents and features as they are developed