



European Satellite Operators Association

Role of Satellite in Advanced TV services: Hybrid Broadcast/Broadband solutions

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A video revolution is taking place

TV trends

Access to always higher-quality video

- Digital television in the early 2000
- HD new reference of image quality
- Ultra HD becoming a reality



Infra-structure answer

- Satellite: champion of digital transmissions for almost two decades
- Satellite leader with HDTV
- Satellite, unique infrastructure to provide UHDTV to everybody

“TV everywhere”

- Personalised choice
- Linear and non-linear content
- Anytime, anywhere & on any device

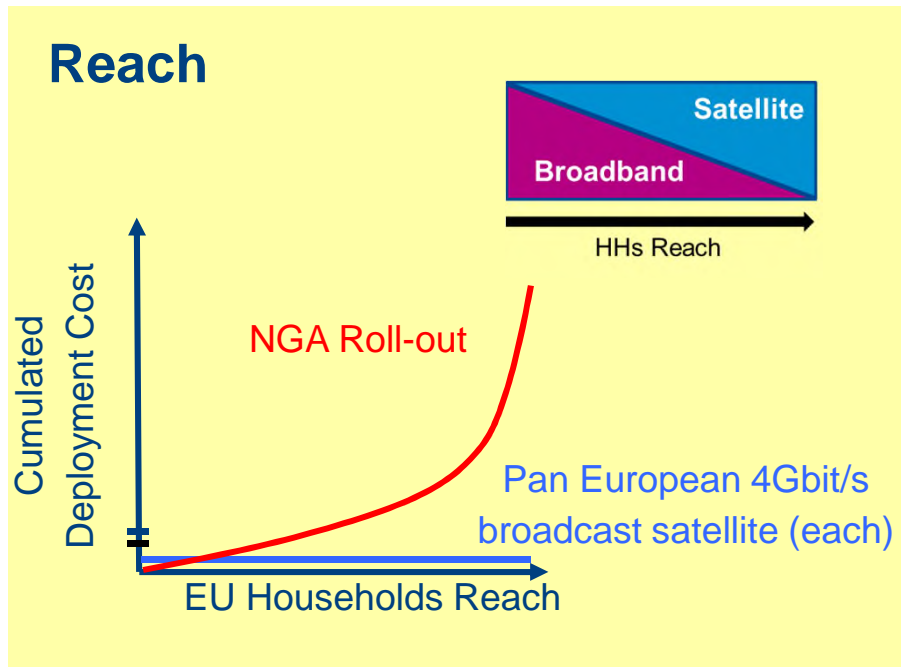


- Being a unicast infrastructure , terrestrial broadband allows new personalized experience
- It is natively compatible with mobile devices

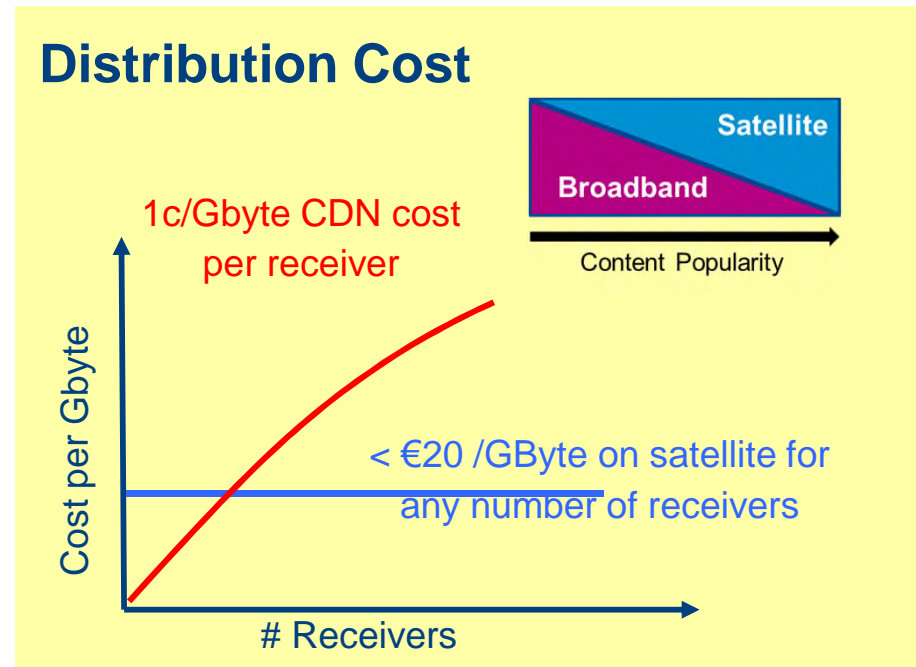


No single delivery infrastructure ticks all the boxes

Satellite/Terrestrial hybrid solution: Joining forces for a sustainable state-of-the-art experience



- Exponential NGA deployment cost
- Incremental satellite user cost unchanged + an installed basis of 86 Mio HHs in EU



- Satellite to stream & push most popular content (video + others) to a “home - CDN”
- Terrestrial broadband for interactivity, long tail & time-critical access



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The best of both worlds: high quality linear TV and best in class on demand TV services

Broadband cannot be the only infrastructure for advanced TV needs

- Current common assumption : advanced TV = Broadband
- But terrestrial broadband does not / will not
 - Provide quality video to a large share of users ¹⁾
 - provide sufficient QoS at peak hour ²⁾
- ... despite constant and costly investments of telcos in infrastructure

Broadcast by satellite is a must-have pillar to enable advanced TV for everybody

- linear content. Satellite broadcast is the best infrastructure for high-quality linear video, from a cost and quality perspective
- Non-linear content
 - Satellite guarantees best QoS at anytime for most demanded content ...
 - ... complemented by broadband for 'long tail' catalogue and user generated content ³⁾

↓

**Broadcast / Broadband hybridization:
perfect match to provide cost-efficient and spectrum-
efficient advanced TV to everybody, NOW**

1) e.g min 30% of households not eligible to IPTV in almost all European countries

2) especially for OTT services

3) UGC: content available on YouTube ...