

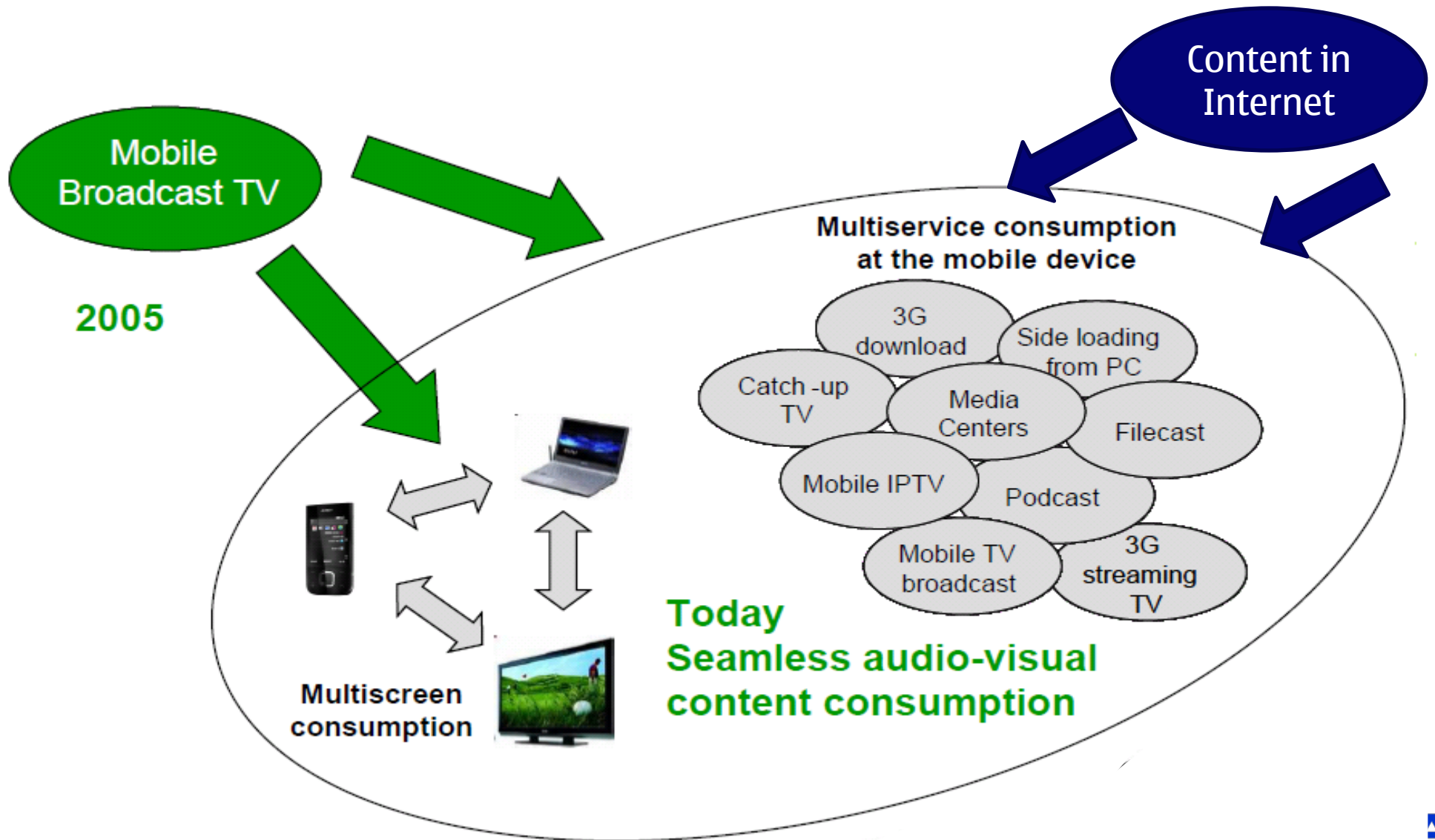
DVB-H and mobile TV market status

NOKIA

IEC AGS, 19.5.2010, Athens

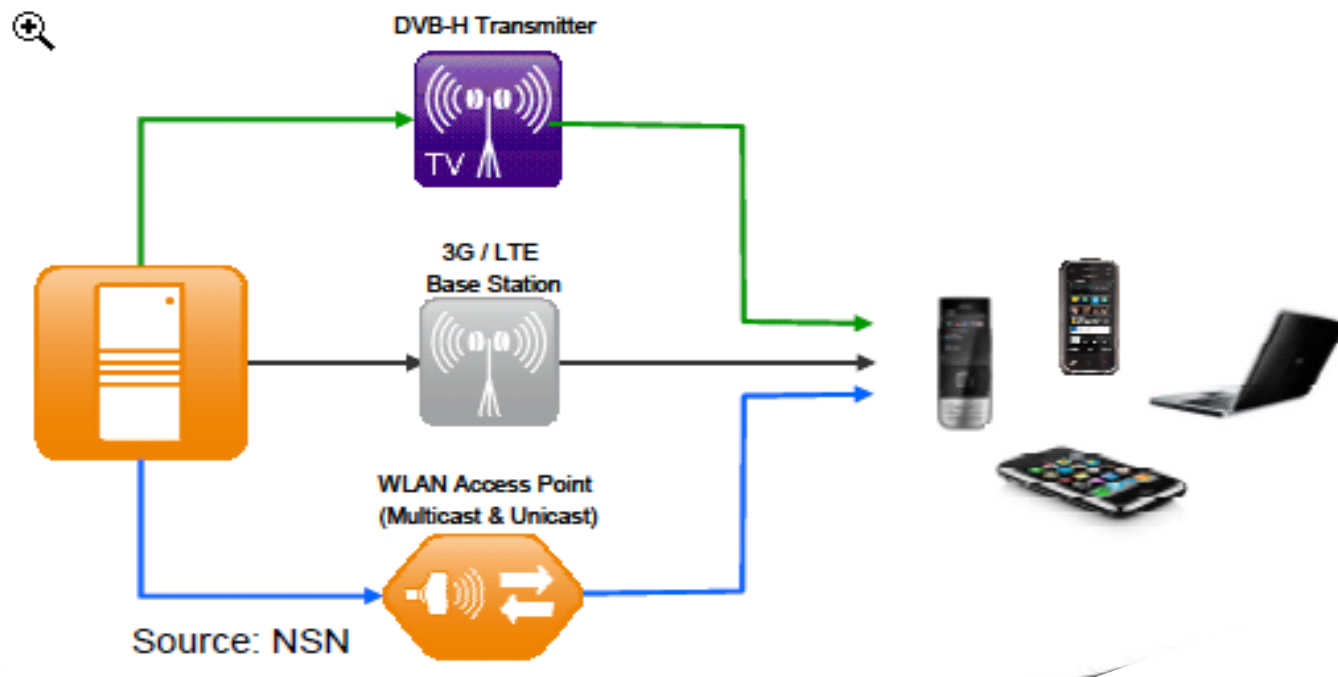
Pekka Talmola

Changes in the audio-visual content



Video traffic increasing – Multi-delivery

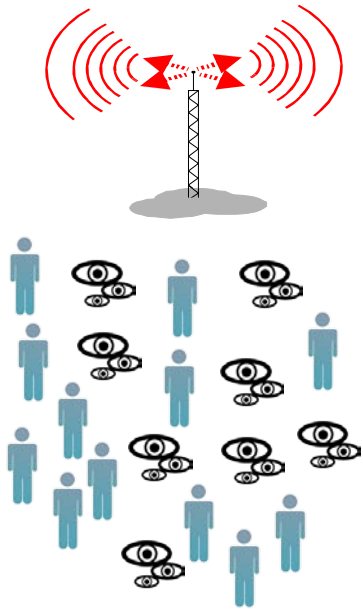
- Globally, **mobile data traffic will double every year through 2014**, increasing 39 times between 2009 and 2014
- While in 2008 **video traffic** averaged roughly 39% of all mobile traffic; it will account for roughly **66% of all mobile data traffic in 2014** (*)
- While delivering TV content, **broadcast and WiFi networks will off-load traffic from mobile networks**



*Source Cisco VNI Mobile, 2010

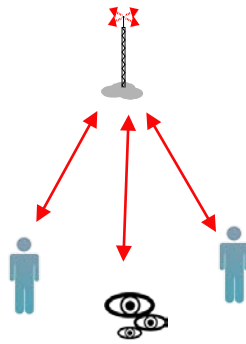
Mobile TV – Channels, Broadcast, Unicast

Broadcast network

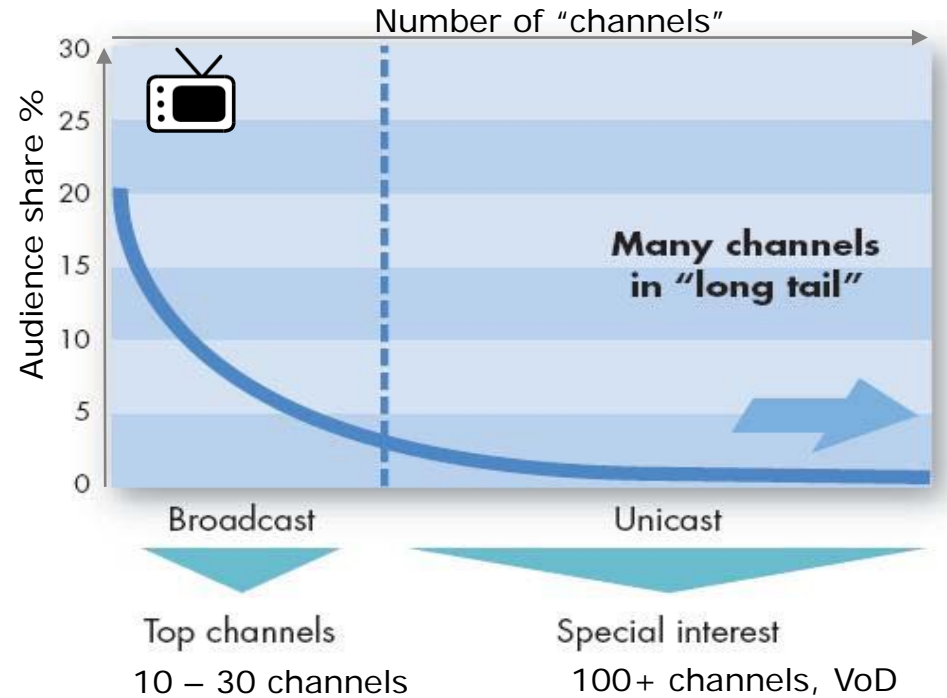


Unlimited number of simultaneous viewers.
Same signal for all
Special broadcast receiver / chip in phone or accessory

Cellular network



Limited number of simultaneous viewers.
Separate connection for each user.
No new hardware



Broadcast Mobile TV Markets 2010-2011

Commercial DVB-H networks

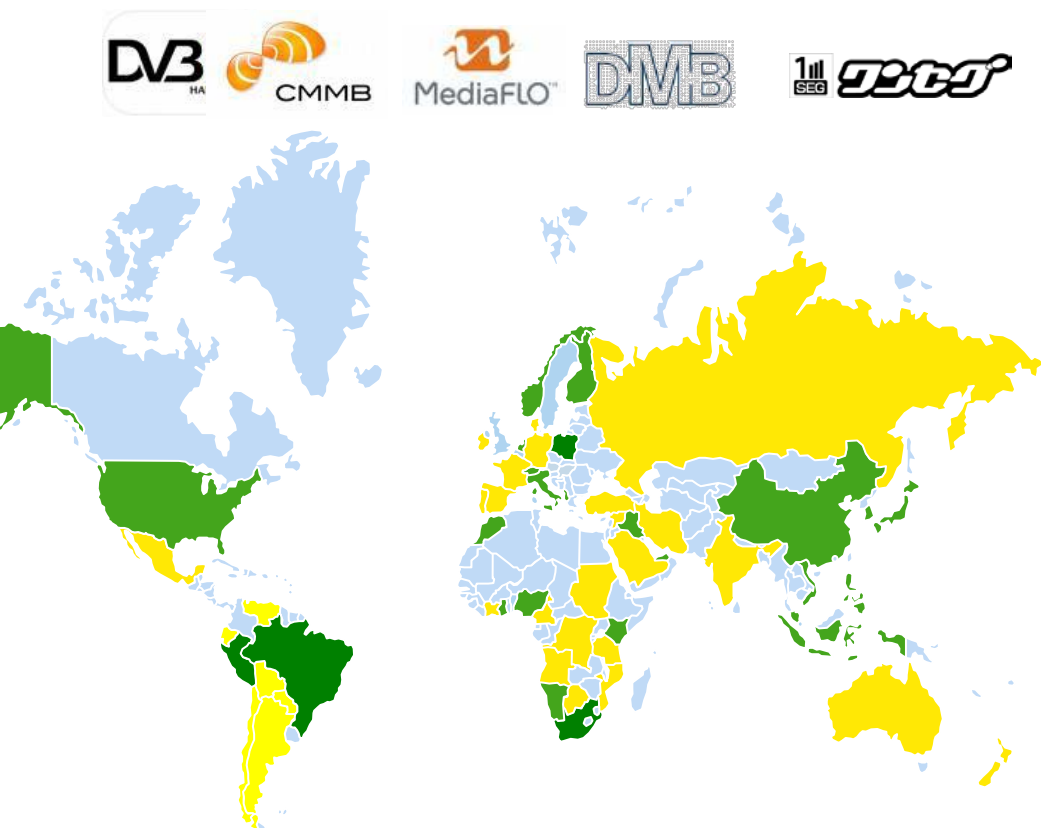
- Italy
- Switzerland
- Vietnam
- Finland
- Philippines
- Netherlands
- Austria
- Ghana
- Namibia
- Kenya
- Iraq
- Albania
- Nigeria
- Morocco
- Poland
- Hungary

Commercial T-DMB networks

- South Korea
- Norway

Commercial ISDB-T (1seg) networks

- Japan
- Brazil
- Peru



Commercial CMMB networks

- China

Commercial MediaFLO networks

- USA
- Japan

Planned launches ISDB-T in 2010 - 11:

- Argentina
- Chile
- Venezuela
- Ecuador
- El Salvador
- Uruguay

Planned launches DVB-H in 2010 - 11:

- Indonesia
- Australia
- France
- Ireland
- Mexico
- Qatar
- Saudi-Arabia
- U.A.E.
- Russia
- India
- Denmark
- Belgium
- Germany
- Spain
- Portugal
- South-Africa
- Angola
- Botswana
- Tanzania
- Syria
- Sudan
- Turkey
- Iran
- New Zealand
- Cameroon
- Ivory Coast
- DRC
- Mozambique

New Developments in DVB Standards

- DVB-organisation is working on a successor for DVB-H → Next Generation Handheld (NGH) project.
- Background:
 - DVB-T2 development 2006-2008, services 2010 onwards
 - Study Mission for NGH 2008
 - Commercial Requirements 2009, approved in July 2009
- NGH Technical standardisation work September 2009-
 - Call for Technology (CfT) released in November 2009
 - 32 responses by February 2010 from full system proposals to technology elements
 - Modulation and coding schemes
 - MIMO proposals
 - Protocol issues like carry of IP, header compression
 - Satellite component proposals
 - Majority seems to build on DVB-T2 technology
 - First draft of the baseline expected by the end of the year