



European Satellite Operators Association

Born Digital – The Satellite Solution

Hans Fjøsne
Member of the Board
European Satellite Operators Association (ESOA)
and
Member of the Board Telenor Satellite Broadcasting

4th December 2006, Riga
www.esoa.net



10 years of Satellite TV

- Digital TV-broadcasting via satellite started ~10 years ago:
 - Broadcasting directly to homes from satellite,
 - Or to cable networks for rebroadcast to end users
- Digital TV was motivated by:
 - Improved cost (& spectrum) efficiency for TV-services
 - Potential for higher video/ sound quality and improved services
- Drivers for introduction:
 - Commercial Pay-TV operators: improve services & cut costs
- Some broadcasters/ networks started later:
 - Broadcasters highly dependent on advertisements from large existing analogue receiver populations
 - Terrestrial networks well-established; shortage of available frequencies; long, sometimes sensitive public decision process



Status end 2006: Satellite TV fully digital, except for--

- **Satellite:** All broadcasts made in digital format, except for some free-TV channels to the large German language group

- **Cable:** Simulcasting in analogue & digital formats; cable networks typically re-broadcast:
 - Satellite programmes in analogue and digital formats
 - Terrestrial programmes; in analogue format and digital format (if available)

- **Terrestrial:** Simulcasting or only analogue in most networks
 - Digital broadcasting started in most EU-countries
 - Analogue broadcasts switched off in some regions in Germany and Sweden
 - Full switch-off mandated by 2009, in the Nordics
 - Full switch-off planned before 2012 in EU

Terrestrial analogue shut-down:

Obligatory: Mandated by government

Firm: Agreed between government & industry groups

Target: Announced date, based on estimates

Country	DTT Launch	ASO date	Status of ASO date
Sweden	1999	2008	Obligatory
Finland	2001	2007	Obligatory
Denmark	2006	2009	Obligatory
Norway	2007	2009	Obligatory
United Kingdom	1998	2012	Firm
Switzerland	2001 (comm DTT services)	2008	Firm
Germany	2002	2009	Firm
The Netherlands	2003	2007	Firm
Austria	2006	2010	Firm
Spain	2000	2010	Target
Belgium	2002	2012	Target
Italy	2003	2012	Target
France	2005	2011	Target
Malta	2005	2010	Target
Czech Republic	2005	2010	Target
Greece	2006	2012	Target
Slovenia	2006	2011	Target
Estonia	2006	2012	Target
Lithuania	2006	2012	Target

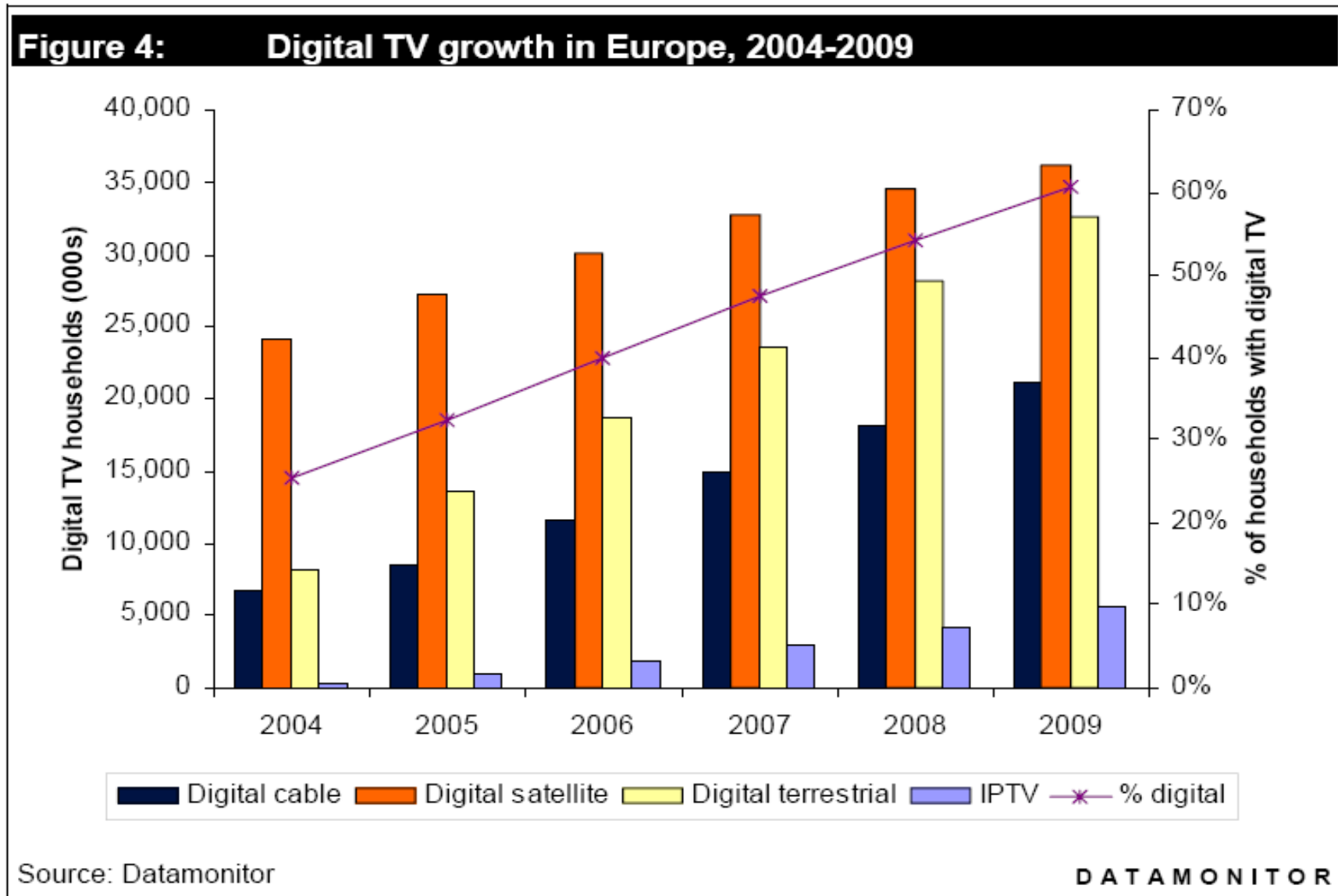


Satellite Broadcasting: A Driver for Digital Development

- Satellite broadcasting has driven *digital* developments
 - Ubiquitous coverage of homes within coverage area
 - Most European countries well covered by at least one satellite network i.e. low-cost entrance, also for broadcasts to countries without digital terrestrial broadcasting
 - Satellite networks have given rise to several equipment generations causing
 - Mass production and sharp cost decreases
 - Improved performance, more convenient usage
- Satellites are driving *new* developments
 - New large flat screens require higher quality (higher bit rates); already provided for in many satellite channels
 - HDTV already launched on several satellite platforms
- Satellite broadcasting has significant household penetration
 - 27% on average for Western and Central Europe for 2005 (*source: Euroconsult*)
 - >40% in Germany (*source: SES Astra*)

Digital TV in Western Europe 2004-2009:

- Satellite networks* - digital (except for some channels to the German market)
- Cable networks* - rapidly increasing digital uptake
- Terrestrial (DTT)* - started last, but now growing fastest





European Satellite Operators Association

Satellite broadcasting: Needs a level playing field

Operators in new digital terrestrial networks will be subject to new regulations, which must ensure fair play between:

- The technical platforms: including satellite/ terrestrial/ other platforms, and
- The commercial operations using these platforms for broadcasting to the public, based on licence, advertisement or pay-TV financing

Equal treatment is important for the satellite platforms, which have been and are main drivers for digital broadcasting, both for national broadcasts and broadcasts without frontiers

Equal treatment with respect to subsidies and regulations are key to an effective switchover:

- State subsidies, if used, must be *technology neutral*:
 - ➔ Not favour one broadcast media over another
- Regulations must be *media neutral*, not favouring:
 - ➔ One media at the expense of another, and
 - ➔ Commercial operations in one broadcast media at the expense of commercial operations in other broadcast media