Doing more with less

Digital Terrestrial Television (DTT)

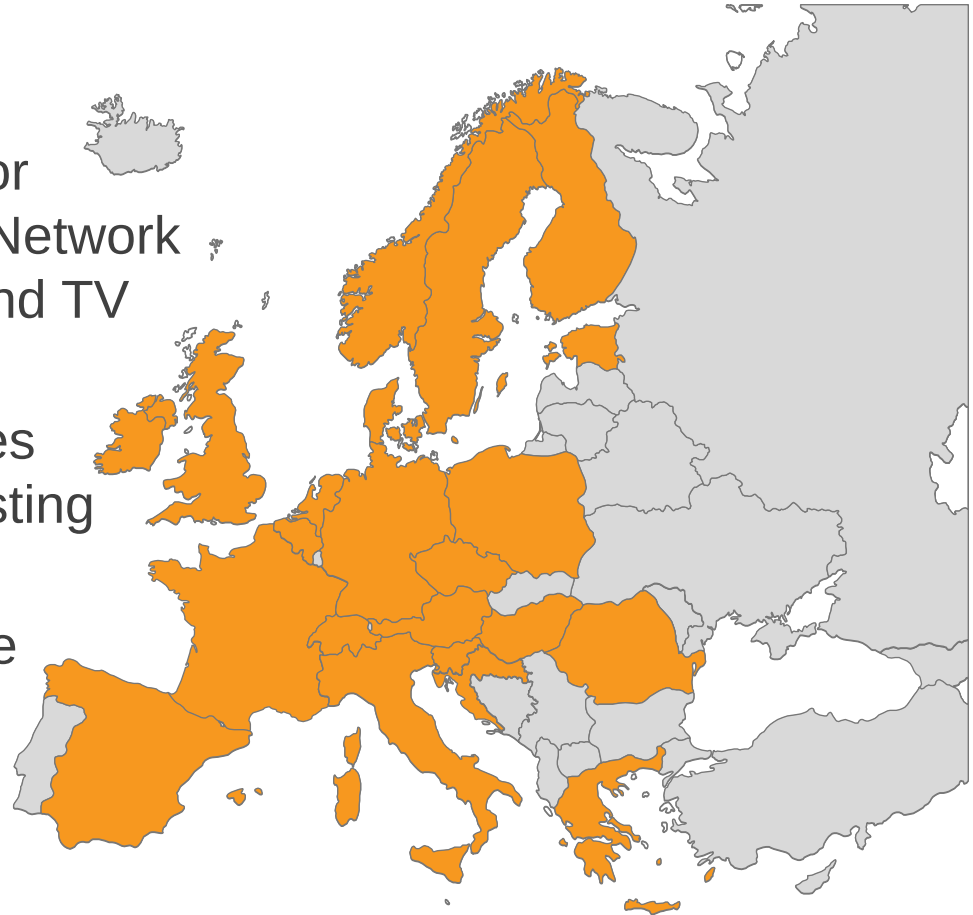
Efficient, drives competition and the platform of choice by consumers

Lars Backlund
Vice Chairman, Broadcast Networks Europe (BNE)
Brussels

Note:
Presentation given at IBC on September 9, 2011
Session : "Broadcast Spectrum – Doing More With Less"

BNE - Members in 24 countries

- A trade organisation for Terrestrial Broadcast Network Operators for Radio and TV in Europe
- Long term opportunities for terrestrial broadcasting
- Current issues: Spectrum, Interference and Digital Services



broadcast networks europe

ibc.org

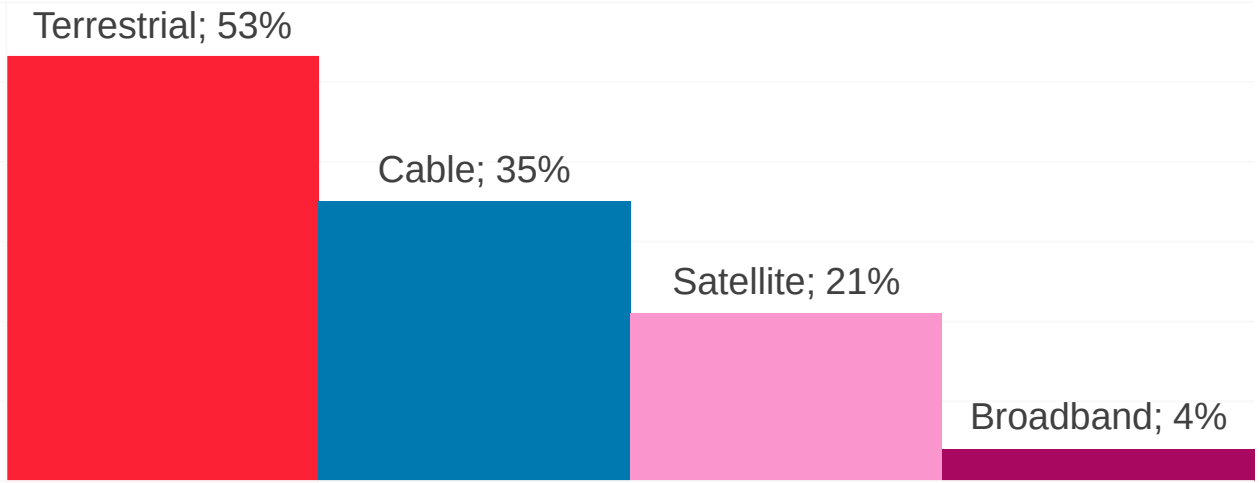
BNE broadcast networks europe 14 members, 24 countries

abertis telecom	arqiva	ČESKÉ RADIOKOMUNIKACE	Digea	GRUPPO MEDIASET ELETTRONICA INDUSTRIALE TELECOMMUNICATION TECHNOLOGY
Spain	*UK*	*Czech Republic*	*Greece*	*Italy*
norkring	OiV	ORS	swisscom	RADIOCOM
Norway, Belgium, Slovenia	*Croatia*	*Austria*	*Switzerland*	*Romania*
Rai Way	RTÉ NL	tdf	TERACOM	
Italy	*Ireland*	*France, Germany, Finland, Estonia, Hungary, Poland, Austria, Netherlands, Monaco, Spain*	*Sweden, Denmark*	

DTT is the platform of choice by consumers

- More than 50% of European households pick their primary TV signal from Terrestrial Broadcasting Networks
- Kitchen-TVs, Bedroom-TVs, Second Homes, Caravans etc add another significant share of households having at least one TV-set on Terrestrial
- Spain, Italy, Greece ≈ 100%, France ≈ 85%, UK ≈ 75%
- DTT is the fastest growing and major platform offering both Free-to-Air Public Service and Commercial TV, as well as popular pay-TV channels
- Terrestrial is simple to use and install, reliable and universally available for European consumers

TV Reception, EU27 Households



Data from Eurobarometer 362, 2011. Adds to more than 100%. Households may use more than one platform.

Households receiving TV from terrestrial networks

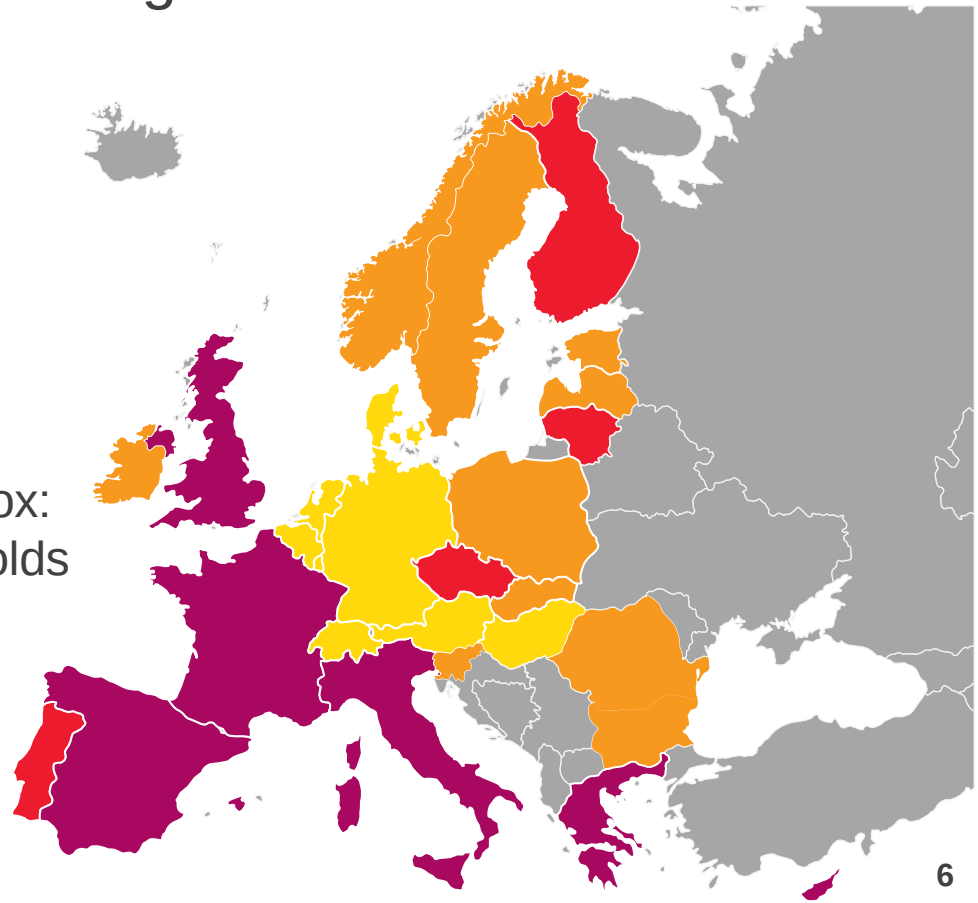
>75%

50-75%

25-50%

< 25%

“Terrestrials” - approx:
120 million households
275 million people



Data not collected

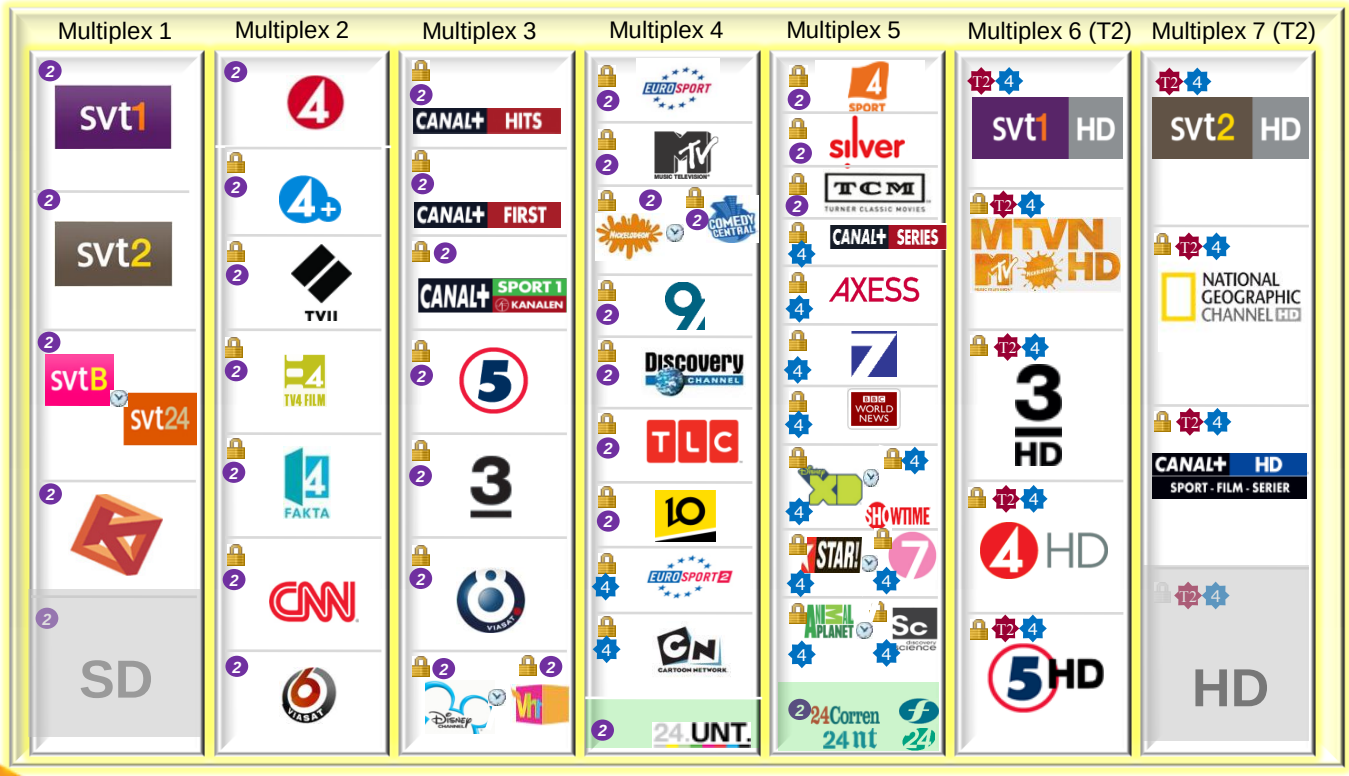
Spectacular growth

- Demand for linear TV is growing – quite the reverse of common myths
- Development of Terrestrial Broadcasting is spectacular and represents innovative technology - from carrying just a few analogue channels per country to more than 50 digital channels including HDTV and 3DTV
- DTT will cover 95% - 99,8% of households in most European countries after Digital Switch Over
- More than 750 TV channels are distributed by DTT in Europe today
- About 200 Million DTT enabled receivers have been sold in Europe

Investments and competition

- DTT is cost efficient and uses spectrum for distribution of linear TV more efficiently than any other terrestrial wireless technology.
- The analog-to-digital switchover has created the 800 MHz digital dividend and has created new business opportunities both for broadcasters, content providers, pay-TV operators and telecom operators
- Consumers and the Broadcasting Industry are now making substantial efforts and investments in making the 800 MHz band available for other services than TV
- Digital Terrestrial drives platform competition and content creation

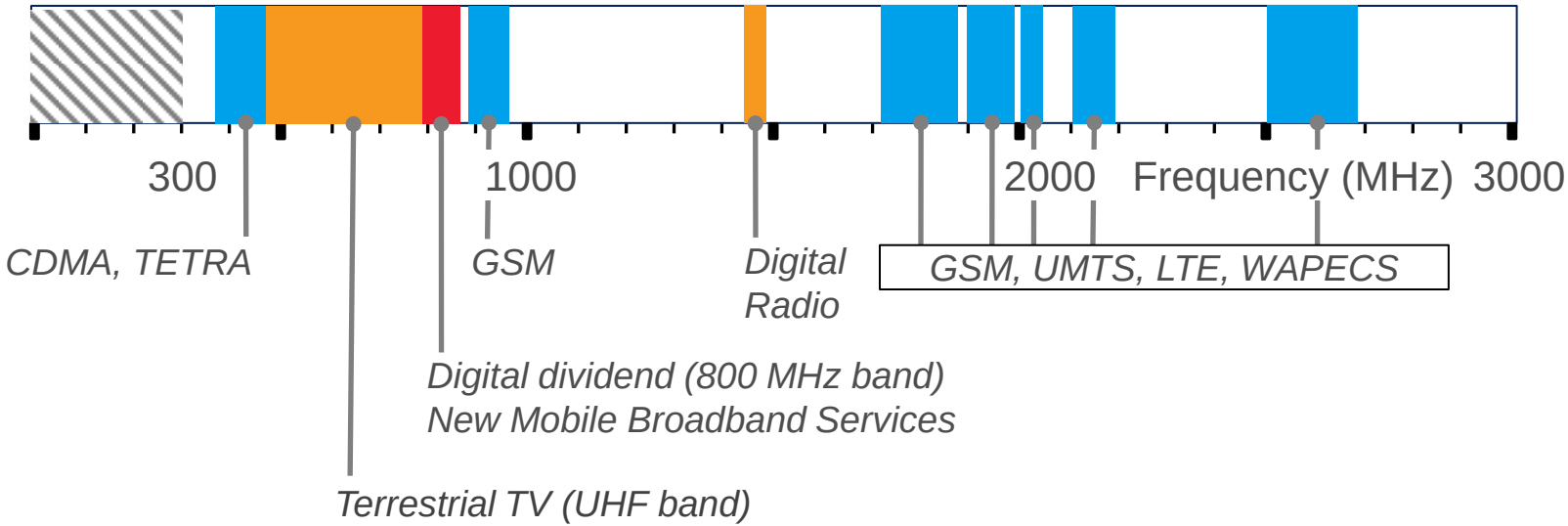
Digital Terrestrial - 50 SD + 9 HD (Swedish example)



Many services call for spectrum in the 300 MHz to 6 GHz range

- Terrestrial Broadcasting, Mobile Voice and Mobile Broadband, Wireless Microphones, Public Safety, Air Traffic, Maritime Systems, Satellites, Radar, Radio Links, Wi-Fi, White Space Devices, Meteorology, Medicine, Navigation, Astronomy ..... and Defence
- The European Commission has proposed a common European Radio Spectrum Policy (RSPP) and an inventory of spectrum use from 300 MHz and upwards
- Much focus is on Mobile Broadband and Terrestrial TV Broadcasting

Spectrum

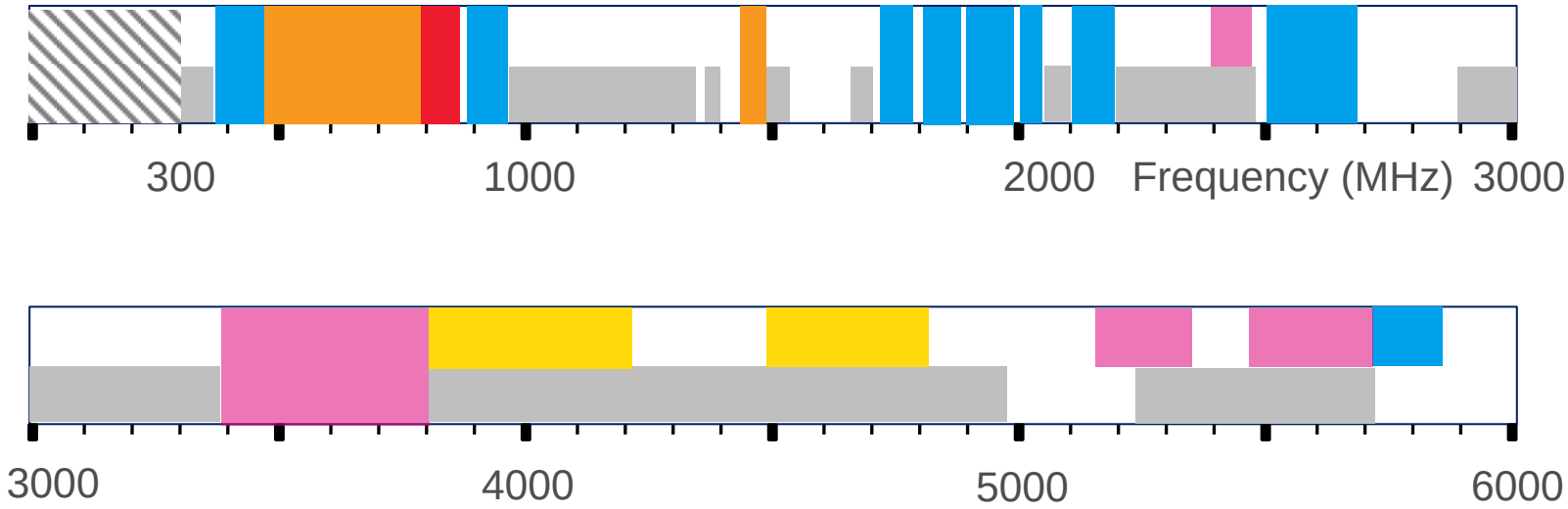


- Broadcasting
- Digital dividend (800 MHz)
- Mobile services

Some comments on spectrum and coverage

- After refarming of the 800 MHz band DTT will use all remaining spectrum in the UHF band
- UHF band is optimal for DTT – coverage and efficiency. To this end LTE will never be used to deliver TV to large screens
- One single DTT site can cover 10 million+ people and a large area
- Increasing demand for wider choice, more channels, HDTV and 3DTV drives requirements on capacity and efficient use of spectrum
- DTT can co-exist with Wireless Microphones
- DTT may be able to co-exist with White Space Devices
- Interference from mobile broadband in 800 MHz is a real issue and consumers must be protected from loosing their TV reception

Spectrum from 300 MHz to 6 GHz under study to find options to add new services



The multi capable digital terrestrial network – Doing more with less

- Universal coverage, fixed and mobile reception
- Serves primary TVs, kitchen TVs, bedroom TVs, second homes, caravans, cars, boats, mobiles ..
- DVB-T / MPEG 2 is currently used in several countries
- For new services DVB-T2 / MPEG4 is introduced gracefully rather than asking for more spectrum
- HDTV and 3DTV already on air
- Over the top, Hybrid solutions, Connected-TV, Push-TV, Advanced Recording Services ...

- Attractive, competitive and simple to use
- Consumer's choice – Much is Free-to-Air

DTT in Europe serves 275 million people and provides 750+ TV channels.
Around 200 million DTT enabled receivers have been sold to date.