1st Conference on the Digital Dividend

April 16th 2009 – Lisbon, Portugal

DTT IN SPAIN

INTRODUCTION

- Spain has one of Europe’s highest terrestrial television penetration rates (≈ 80%).
- Coverage of analogue terrestrial TV is more than 99% of the population.
- Spain was the 3rd country of the European Union to introduce Digital Terrestrial Television (DTT).
- The adopted model in Spain has taken into account the administrative organization of the State.
- DTT implicates a new business model for TV operators.
DTT evolution in Spain

- **2000**: 14 digital channels PayTV
  - Platform: 80% National Coverage
  - (channels 66-69)
- **2003**: Announcement of a Plan to relaunch DTT
- **2004**: Publication of the first DTT National Technical Plan
  - (16th October 1998)
- **2005**: Approval of the Spanish Technical Plan for Digital Terrestrial Television (DTT) switchover
  - (7th September 2007)
- **2006**: Local DTT National Technical Plan
- **2007**: Publication of the new DTT National Technical Plan
  - (30th July 2005)
- **2009**: Assignment of greater spectrum capacity to provide DTT services
  - (25th November 2005)
- **2010**: Assignment of greater spectrum capacity to provide DTT services
  - (25th November 2005)

- **3rd April 2010**: Switch-off Date

- **Local DTT National Technical Plan**
  - 2 digital channels: New offer
  - 5 analogue simulcast programmes: 80% National Coverage

- **New offer**
  - 20 national coverage digital channels + Regional Digital channels + Local Digital channels
  - 14 digital channels pending reassignment
  - 5 analogue simulcast programmes: 80% National Coverage

**PLAN TO RELAUNCH DTT**
PLAN TO RE LAUNCH DTT

On the 30th of December 2004, the Government announced a Plan to promote Digital Terrestrial Television

This Plan includes:

✓ Modification of the National Technical Plan on DTT.
   The new National Technical Plan was published on 30th July 2005

✓ Assignment of greater spectrum capacity to provide DTT services.
   Council of Ministers agreement on 25th November 2005 assigned greater spectrum capacity to the existing operators and introduced a new DTT operator

✓ Moving forward the switched off date (from 2012 to 2010).
   The new National Technical Plan for DTT establishes analogue switched-off date in Spain on 3rd April 2010

✓ AGREEMENT with the Spanish audiovisual sector to drive DTT forward
   The “Commission for monitoring the switch over process towards DTT” was established on 22 February 2005

New National Technical Plan on DTT

• Approved by Royal Decree 944/2005.
• Strongly supports DTT, moving forward the switched off date (from 2012 to 2010).
• Establishes two scenarios: during the transition period and after the analogue TV has been switched off.
• Facilitates the progressive transition from analogue terrestrial television to digital terrestrial television.
• Makes the incrementation of TV offer possible, providing greater spectrum capacity for new digital TV channels.
• Makes the introduction of new TV services possible, and foresees the evolution to high definition television.
• Establishes Broadcasters DTT coverage obligation:
  – 98% for national and regional public broadcasters
  – 96% for national private broadcasters
Royal Decree 944/2005 establishes that when an operator owns an entire multiplex, they will be able:

- to include as many digital channels as possible taking into account technological evolution.
- to include high definition channels given that they follow the conditions that will be established by the government.
AGREEMENT WITH THE SPANISH AUDIOVISUAL SECTOR TO DRIVE DTT FORWARD

The “Commission for monitoring the switch over process towards DTT” was established on 22 February 2005 in order to reach an agreement with the audiovisual sector.

PRESIDENT:
✓ Secretary of State for Telecommunications and Inform. Soc.
✓ PARTICIPANTS:
20 members representing the audiovisual sector:
- TV operators
- Network operators
- Manufacturer Associations
- Installation companies Associations
- Professional Associations of telecom engineers
- Urban property Administrators
- Department Store Associations
- Publicity Associations
- Audiovisual producers Associations
- National Consumer Institute
- Autonomous Communities

The “Technical forum on Digital TV” was established on 2nd February 2005

✓ The objective is to have a Forum to deal with the technical aspects of Digital TV, in which to establish initiatives to promote and develop Digital TV.

✓ This technical forum covers all sectors (satellite, cable, terrestrial, ADSL,...) and it is open to the participation of all entities involved in Digital TV.

✓ Main activity areas: DTT reception, DTT coverage, content offer, communication plan, other technical and service aspects.
SPANISH TECHNICAL PLAN FOR DIGITAL TERRESTRIAL TELEVISION SWITCHOVER

- Approved by the Council of Ministers on September 7th 2007
- Sets analogue switch-off date in Spain for 3rd April 2010
- Switch-off will take place progressively starting June, 30th 2009
- Divides Spain into 90 switchover areas named “Transition Projects”
Spanish Technical Plan for Digital Terrestrial Television switchover

Switch-off procedure

- Exact analogue switch-off date is decided individually for each Switchover Project
- Switch-off decision is made by the Government

Requirements for the Switch-off of any Project

- DTT coverage similar to analogue TV coverage
- Household adoption of DTT sufficient for an adequate technological substitution

Switch-off milestones

Phase 1:
Before 30th June 2009
Analogue TV will be switched off in 32 Switchover Projects
Projects with less than 500,000 inhabitants

Phase 2:
Before 31st December 2009
Analogue TV will be switched off in 25 Switchover Projects
Projects with population between 500,000 and 700,000 inhabitants

Phase 3:
Before 3rd April 2010
Analogue TV will be switched off in 33 Switchover Projects
Projects with more than 700,000 inhabitants
Spanish Technical Plan for Digital Terrestrial Television switchover

Phase 1: 32 Switchover Projects

30th June 2009

Phase 1: 25 Switchover Projects

31st December 2009

Phase 1: 33 Switchover Projects

3rd April 2010

DTT IN SPAIN TODAY
Current DTT offer in Spain:

- 5 multiplexes with national coverage
- 1 multiplex at each Autonomous Communities (2 multiplexes in some of them).
- 1 multiplex digital local television (291 local areas)

Planning of the public multiplex (MUX RGE) with regional disconnections.
Current DTT offer in Spain:

- 5 multiplexes with national coverage
- 1 multiplex at each Autonomous Communities (2 multiplexes in some of them).
- 1 multiplex digital local television (291 local areas)

Example: 8 local areas in the Autonomous Community of MURCIA

93.52% of population have DTT coverage. The highest coverage of principal European countries

- More than 18 million DTT decoders sold.
- Effective connection to DTT in more than 67% of households.
- 65.6% of buildings that need to adapt its antenna has already been adapted, a figure which represents that more than 92% of residential buildings are ready to receive DTT.
- Connection to DTT channels, considering other digital platforms (cable, satellite, IPTV) is over 76.7%.
- Direct share of DTT is 26.2%.
- Analogue TV share is under 52.5%.
REGIONAL RADIOCOMMUNICATION
CONFERENCE FOR PLANNING OF THE
DIGITAL TERRESTRIAL BROADCASTING
SERVICE IN PARTS OF REGIONS 1 AND 3,
IN THE FREQUENCY BANDS 174-230 MHz
AND 470-862 MHz (RRC-06)

RRC-06 CONFERENCE

Adopted the Regional Agreement relating to the planning
of the digital terrestrial broadcasting service in Region 1
(parts of Region 1 situated to the west of meridian 170° E
and to the north of parallel 40° S, except the territory of
Mongolia) and in the Islamic Republic of Iran, in the
frequency bands 174-230 MHz and 470-862 MHz (Geneva,
2006).

- It includes the DVB-T Plan assignments and the DVB-T Plan
  allotments for the 470-862 MHz band.
- It establishes the Procedure for modifications to the Plans and
  procedure for coordination of other primary terrestrial
  services.

Spain has got 1955 assignments and 257 allotments at
Geneva 06 Plan.
GENEVA-06 PLAN

GE06 Plan - Spanish assignments

GE06 Plan - Spanish allotments

ASSIGNMENTS WITHIN THE 790-862 SUBBAND
GENEVA-06 PLAN
ASSIGNMENTS WITHIN THE 790-862 SUBBAND

CHANNEL 67 COORDINATION

C67, C69
Preferential use by Portugal
790-862 MHz SUB-BAND

Some difficulties have been identified for freeing up the 790-862 MHz sub-band in Spain and it would most likely be a complex process that takes a long time to implement. At the moment there are not any decision regarding this subject.

There are some essential requirements and conditions that should be addressed, specially those related to spectrum planning.

- New Spectrum Planning to include all the multiplexes in the 470-790 MHz band.
- International Coordination of new allotments/assignments would be required to reallocate the existing ones in the 790-862 MHz sub-band. This process should be based on bilateral negotiations.
- Planning of the new multiplexes based on the reallocated allotments/assignments.
Antonio Fernández-Paniagua Díaz-Flores

Deputy Director Planning and Management of Radio Spectrum
Ministry of Industry, Tourism and Commerce
SPAIN

E-mail: afernandezp@mityc.es