THE SPANISH PROCESS TO DTT
(DIGITAL TERRESTRIAL TELEVISION)

EMRO – Mallorca, 1st Jun. 2010

AGENDA

- Theoretical transitional process to DTT
- Distinctive features of Spain
- Technical coverage objective
- Conditions to view the DTT in households
- The real technical coverage
- Indicators for the real analogue switch-off
- Studies about population
- The monitoring of the population about DTT
- The real transition to DTT
- Effects of analogue switch-off in the peoplemeters panel
THEORETICAL TRANSITIONAL PROCESS TO DTT

- July 2005 → National Transitional Plan to DTT approved
  - Deadline of analogical broadcasting → 3rd April 2010
  - The most important broadcaster were pushed to emit digital and analogical signal at the same time
  - First national DTT emissions → 30th November 2005

DISTINCTIVE FEATURES OF SPAIN

- The extent, topography and population distribution
  - Above 46 million inhabitants / 16 million households
  - More than 8,000 municipalities
  - The fourth largest country in Europe → 504,645 Km²
  - The fifth most mountainous country in Europe
  - Low density → 91 inhabitants per Km² (very irregular distribution)

- Lower penetration other digital systems reception → 22-23%
TECHNICAL COVERAGE OBJECTIVE

- Forecast objective of coverage
  - Private broadcaster → 95% population
  - Public broadcaster → 98% population
  - Technical design: the country in 90 areas (“technical projects”)

- Three phases of analogical cuts:
  - Phase 1: 32 projects (12.6% population) – Deadline: 30th June 2009
  - Phase 2: 25 projects (20%) – Deadline: 31st December 2009
  - Phase 3: 33 projects (67.4%) – Deadline: 3rd April 2010

CONDITIONS TO VIEW THE DTT IN HOUSEHOLDS

- To have the antenna prepared
- To have a TV with decoder (internal or external)
- To receive a strong digital signal

- Indicators to carry out the analogical cuts → IMPULSA TDT
THE REAL TECHNICAL COVERAGE

- Goal successfully reached
- February 2010: the DTT matches to the analogical coverage
  - Private operators → 97.8% population
  - Public operators → 98.5% population

INDICATORS FOR THE REAL ANALOGUE SWITCH-OFF

- Objective: To find out the real situation of the households.
  - Abertis Telecom – technical coverage
  - Fenitel – the antenna installation process
  - Ministry of Public Works and Statistic National Institute – housing stock
  - GFK – sales of tuners
  - Kantar Media – consumption and changes in distribution systems
  - AIMC – baseline data about audiovisual equipment
  - Ad-hoc studies about population
STUDIES ABOUT POPULATION

- First studies from AIMC
  - Knowledge and perception of DTT: three waves (2007 / 2008)
  - Each wave: 3,000 telephone interviews (landline and mobile phone)

- The monitoring of the population about DTT
  - Methodological advice and supervision audit of AIMC
  - From March 2009 to May 2010
  - More than 200,000 interviews
  - Strategic design → maximum dispersion

THE MONITORING OF THE POPULATION ABOUT DTT (1)

- To provide the Ministry indicators
  - Degree of knowledge of the DTT
  - Adaptation of homes – antenna and decoder
  - Perceptions of signal
  - Pay TV subscribed

- Objective: to make decision from cuts of the analogical signals
THE MONITORING OF THE POPULATION ABOUT DTT (2)

Sample design:

- Interviews by telephone (CATI)
- Mixed sample: landline and mobile phones in the national waves
- Quota 15% interviews to households with only mobile phone
- Each project: minimum 200 interviews per wave
- No contact with the same household before three months
- Interviewee: member of the household, aged 16 or above
- To distinguish between houses and collective
- Weighted by age, sex and household size
- Phase and overall results weighted by population and households in each project
- Design flexible in function of the results

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THE MONITORING OF THE POPULATION ABOUT DTT (3)

Sample design:

<table>
<thead>
<tr>
<th>THEORETICAL SAMPLE</th>
<th>POPULATION</th>
<th>MUNICIPALITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>212,545</td>
<td>100,0</td>
<td>46,153,070</td>
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<tr>
<td>PHASE 1 (32 projects)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71,600</td>
<td>33,7</td>
<td>5,830,856</td>
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<tr>
<td>PHASE 2 (25 projects)</td>
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<tr>
<td>55,000</td>
<td>25,9</td>
<td>9,234,581</td>
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<tr>
<td>PHASE 3 (33 projects)</td>
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<td></td>
</tr>
<tr>
<td>85,945</td>
<td>40,4</td>
<td>31,087,633</td>
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</tbody>
</table>

Population and Municipalities data: 2009

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THE MONITORING OF THE POPULATION ABOUT DTT (4)

- Sampled municipalities: 85%

![Graph showing total and sampled municipalities across different phases.]

**Note:** In the waves of October and December 2009 and March 2010, only two projects were sampled in phase 1.

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THE MONITORING OF THE POPULATION ABOUT DTT (5)

- Knowledge of DTT: almost full

![Graph showing knowledge of DTT over time.]

**Note:** In the waves of October and December 2009 and March 2010, only two projects were sampled in phase 1.
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THE MONITORING OF THE POPULATION ABOUT DTT (6)

- Possession of DTT: over 92% in April 2010

![Graph showing possession of DTT](image)

Note: in the waves of October and December 2009 and March 2010 only two projects were sampled in phase 1

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THE MONITORING OF THE POPULATION ABOUT DTT (7)

- Maximum exposure to DTT: around 96%

![Graph showing maximum exposure to DTT](image)

Note: in the waves of October and December 2009 and March 2010 only two projects were sampled in phase 1

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THE MONITORING OF THE POPULATION ABOUT DTT (8)

- Technical coverage perceived: 98%

![Technical Coverage Perceived Graph](image)

Note: in the waves of October and December 2009 and March 2010 only two projects were sampled in phase 1.

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THE MONITORING OF THE POPULATION ABOUT DTT (9)

- Antenna prepared: over 96% under a conservative hypothesis (all homes need to adapt the antenna)

![Antenna Prepared Graph](image)

Note: in the waves of October and December 2009 and March 2010 only two projects were sampled in phase 1.

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THE MONITORING OF THE POPULATION ABOUT DTT (10)

- Antenna prepared: almost 98% under a favourable hypothesis (only collective homes need to adapt the antenna)

Note: in the waves of October and December 2009 and March 2010 only two projects were sampled in phase 1

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THE MONITORING OF THE POPULATION ABOUT DTT (11)

- Number of TV sets in use: gradual decrease

Note: in the waves of October and December 2009 and March 2010 only two projects were sampled in phase 1

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THE MONITORING OF THE POPULATION ABOUT DTT (12)

- Number of TV sets not prepared for DTT: gradual decrease

![Graph showing the number of television sets non-prepared for DTT]

Note: in the waves of October and December 2009 and March 2010 only two projects were sampled in phase 1

THE REAL TRANSITION TO DTT

- The process has been:
  - Continuous
  - Geographically dispersed
  - Not total: several days coexisted analogical and digital signals in some locations

- Some project deadlines were changed:
  - First switch-off (Phase 1: 30th June 2009):
    - gradually implemented to 18 of 32 projects.
    - 12 projects between July and October.
    - 2 projects added to phase 2
  - Last switch-off (Phase 3): ahead to 10th March until 3rd April 2010


**EFFECTS OF ANALOGUE SWITCH-OFF IN THE PEOPLEMETERS PANEL (1)**

![POSSESSION OF DTT IN HOUSEHOLDS](chart.png)

The EGM data correspond to the period of fieldwork.

**THE SPANISH PROCESS TO DTT**

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**EFFECTS OF ANALOGUE SWITCH-OFF IN THE PEOPLEMETERS PANEL (2)**

- **Current data of peoplemeters panel**
  - 98.9% of households with DTT or payment TV
  - 90.5% with DTT
  - 8.4% subscribed to some payment TV
  - 1.1% without DTT or payment TV → analogical satellite or local channels in analogue
  - 17.3% television sets without DTT → The process continues in second or third TV sets
    → Decrease of average TV sets by home
  - More DTT channels → Fragmentation of the consumption
    → Higher consumption