




**TRANSITION  
FROM ANALOGUE TO  
DIGITAL  
BROADCASTING**

**Economic aspects**


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1

## Economic aspects 1



- Broadcasting chain is unique at every level.
  - Its concept, architecture and deployment differs to such an extent that it is extremely unlikely to spot “twin” arrangements.
- There are no identical
  - TV production centres, contribution/ distribution networks, and multiplexes/transmission networks.
- The variations of technology options and solutions
  - are such that every component of the broadcasting chain may have its own specific design, specifications and cost.
- Price information has been always of confidential nature
  - and contracts are signed based on tedious negotiations. Discounts could be granted for large scale delivery, established long-term business relations, etc.

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2

## Economic aspects 2



- Planning, warranty, installation and testing, staff training
  - and after sales service clauses will have an impact on the total of every contract signed. Even if cost information available, it will be of value in a concrete context.
- Difficult to provide answer to the cost implication issues.
- Information on
  - business models, cost and funding, evaluation of risk factors, analysis of cost/benefit issues,
  - might be provided by actual case studies yet to be carried out by the BDT while assisting ITU members in the transition to digital terrestrial broadcasting.
- Availability of such country case studies
  - may be very useful in order to assess the cost incurred and analyze the cost benefits versus risks.

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3

## Digital Switchover cost impact




- **Digital switchover will affect almost all households**
  - and entail compulsory costs for consumers.
  - It also entails costs for non-domestic users of television services.
- **This may include the cost of upgrading**
  - community TV reception antenna systems that are used in blocks of flats
  - hotels and in residential care and nursing homes.
- **For the broadcasters and multiplex operators**
  - there are capital investment costs incurred for deployment of the digital network
  - any associated costs for implementing digital switchover as stipulated in their broadcasting licenses.
- **Commercial services broadcasters will also have to develop strategies**
  - to deal with the negative impact on their revenues by the extended choice and access to multi-programme services.

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4




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## ASO key costs categories

1. Migrating viewers [++++]
2. Transmitter network changes [+]
3. Re-farming & compensations [++]
4. Simulcasting (if applicable) [+++]
5. ASO Management [+]
6. Certification & labeling [+]
7. Resolving interference [+]

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## Cost for consumers 1

- **When digital switchover takes place**
  - all households that wish to continue to receive television services and who have not yet switched to digital television **will need to obtain at least a STB.**
- **Currently STBs to receive DTTV services are available between 20-70 USD.**
  - The price may be expected to fall further by switchover.
  - However, in addition to the cost of STB/receivers, consumers who opt for DTTV may also face other costs.
- **Households with second or additional sets will need to obtain equipment to adapt all television sets they wish to use after switchover**
  - If they do not opt for an integrated digital television (with an in-built digital tuner) the costs will include a STB.
  - Costs may also include supplementary cables for VCRs and new indoor aerials;
- **Households with video-recorders may require purchase of additional SCART cables.**

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## Cost for consumers 2



- **Households with video-recorders**
  - who wish to record a different television channel to the one to which their television is tuned will need to replace their video recorder (or buy an additional STB to adapt the video recorder).
- **Households who opt for DTTV (for first or subsequent sets)**
  - may have to upgrade aerials for digital switchover.
- **The costs of a new outdoor aerial**
  - can vary depending on what needs to be done and regional variations
  - the range may be from 150 to 600 USD.
- **Households in blocks of flats**
  - may be required to pay additional service charges to meet the costs of upgrading the system for digital reception.
- **In the period up to and after the start of switch-over**
  - the price of DTTV equipment is assumed to fall due to the large scale sales as the country begins to implement plans for digital switchover
  - the increased demand for digital television also may open the way for cheaper access to basic services on satellite and cable.

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7

## Non-domestic users cost



- **A large number of businesses**
  - make use of television broadcasting via analogue networks.
  - in order to continue receiving television services after the switchover, reception equipment and relevant systems will need to be upgraded.
  - in some cases equipment will need to be replaced ahead of its normal replacement cycle.
- **Community TV antenna systems**
  - replace the need for individual aerials which may be less effective due to the location and position of the building.
  - The costs of updating communal TV systems for digital television services will vary depending on
    - the type of building,
    - its location and
    - whether the landlord and residents opt to upgrade the system for DTTV only or
    - whether they wish to invest in a new system that is capable of providing satellite or cable delivery.
  - For systems being in good condition the cost varies between 1200 – 2000 USD per system.

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8

## Cost for Public Service Broadcasters



- **The process of achieving digital switchover will have a number of implications for public service broadcasters:**
  - they will need to contract (as multiplex operators or indirectly via other multiplex operators) the transmission network companies
    - to deploy and configure the DTTV network and
    - to increase DTTV coverage with multiplexes carrying public service channels so that the coverage matches existing analogue coverage;
  - digital take up may strongly affect their future advertising revenue.

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9

## Cost/benefit analysis



- **Cost/benefit analysis is to be carried out**
  - separately for each (developing) country taking into account its
    - infrastructural, economic, social, demographical, technological and other aspects and on the basis of relevant databases.
- **Furthermore some common approaches**
  - may be used and applied,
    - which could be of interest to the cost/benefit analysis specialists from the national administrations and relevant stake-holders.

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10

## Business Models & Public Financing



- Key financing principle:
  - PBS: Government
  - Commercial Broadcasters: market
- Three PBS models:
  - Government PSB + defined services + fully public funded (UK-BBC)
  - Government PSB + defined services + public funding & ads (NL-NOS)
  - Commercial broadcaster + PSB obligation (+spectrum rights) + partial public funding (FR-TF1, S-TV2, UK-ITV)

### PBS Funding Sources

- General Taxes & TV license fees
- Levies to licensed operators
- Public Tenders, Auctions
- Third parties (ITU, NGOs)
- Public Private Partnerships

- Financing of STBs
- Financing FTA stipulations
- Financing Simulcasting
- Revision of TV license fees

11



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12